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'She looked deep into our eyes': reflections on cross-cultural practice in rural Africa

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This paper shows the development of a mobile digital storytelling system that suits the needs and functions of rural African communities. But rather than focusing solely on the artefact and how it was designed, I also present an account of the ideas and perspectives I took, and how these changed in the course of practice. I uncover the slow process of discovering that cross-cultural practice is not only about understanding users or prototyping ideas in a detached fashion, but explore how in the course of practice pre-existing notions embedded in ourselves and in our culture are 'unconcealed'. It is a learning process in which we learn about users in relation to ourselves. The prototype was tested in Adiedo, Kenya.

Design brief

Flexibility and mobility are the two key properties to how our mobile digital storytelling system (shown in Figure 3) accommodates the unique context of rural African communities. These properties allow users and storytellers to distribute storytelling activities across time, people, and places, in addition to allowing people to draw upon their context – their physical and social surroundings – in telling their stories. In rural African communities, it is the context in which people live and meet and in which activities take place, more than the photos of digital stories, that inspire storylines. Digital storytelling in such contexts is about supporting social and oral practices and emergent storylines, rather than just providing a means to synchronize photos to audio.

Introduction

In this paper, I reflect on the work I undertook in the field of cross-cultural human-computer interaction (HCI) at the University of Cape Town, designing a mobile digital storytelling system that suits the needs and functions of rural African communities. But rather than presenting a more traditional account of the system I designed along with Nicola J. Bidwell and Gary Marsden, I reflect on practice itself and present an alternative account of design, looking at what I learned and how my ideas and perspectives changed in the course of practice.

Looking back on my own experiences, formed over the past three years, I realize that many of the vicissitudes of my research are never mentioned in my publications, or for that matter are even fully articulated; and yet, they influenced many design decisions as well

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as changed my perspectives on design and the role I play within it. The reason for this lies in the fact that many of these experiences are at odds with more traditional accounts of iterative refinement and within the rationalistic tradition of scientific discourse (Winograd and Flores 1986); they, thus, remain largely unreported and invisible. For instance, my field notes show signs of such invisible work and ephemeral experiences. Red fingerprints scatter a few pages, reminding me of how I sat under a tree on red soil while listening to a story. Dripped candle wax on another page shows, not only that there is no access to grid electricity in many rural communities across Africa, but reminds me of long, dark nights and a daily rhythm dictated by the sun. What does it mean for digital storytelling systems that we sat under a tree while recording a story? Why do I remember so vividly how one storyteller looked deep into my eyes while recording her story (see Figure 4)? How does the daily rhythm affect the experience of digital storytelling? Formulating, let alone answering, such questions is an elusive and subjective process, which is perhaps why such invisible work is often downplayed, ignored, or outright feared when reporting results in relatively sterile conference papers and journal articles. I too am guilty of this. But such invisible work – whether we recognize it or not – always comes into play when translating social observations in technical systems (Dourish 2004).

Perhaps it is inappropriate, premature, and narcissistic for a relative newcomer to this field of research to reflect on his experiences in the lab as well as in the field and to do so in a personal and 'unscientific style'. But my experiences over the past years have directly shown me that in order to design effectively and appropriately in cross-cultural settings we, and the field as a whole, need to reflect more – not less – to 'unconceal' limitations in design practice as well as aspects of ourselves and our culture that influence design decisions. By looking back and examining my experiences and perspectives, while also trying to formulate general lessons, I hope to contribute to the discussion on the problems that designers (especially newcomers) face in the course of cross-cultural practice, and the kind of strategies and perspectives that can deal with these unique circumstances and that need to be acknowledged and made visible. So in essence, this paper presents a metamorphosis of ideas and perspectives that I developed and took on – in large parts through invisible work – in pursuit of designing a mobile digital storytelling system and situating design in rural African communities.

In many ways, I am uniquely unqualified to write about this topic or, for that matter, actually design a digital storytelling system for and with rural African communities. If you are my skin colour, you can hear kids shouting '*Mzungu! Mzungu!*', when you walk past the village primary school in Adiedo, Kenya. That means 'European' in Swahili. Not hostile, per se – just foreign. As if to say: '*Hey outsider! You're not from here*'. Implicitly, these kids point out an important fact. As cross-cultural researchers and practitioners we are always outsiders. It might not always be in terms of race, but education, culture, and wealth often differ. In the rest of this paper, I will explore and reflect on how I learned to recognize, embrace, and sometimes even leverage my position as an outsider in the course of practice.

In the lab

When I began work on this project in mid-2008, I was eager to apply the user-centred design (UCD) principles and methods I had learned in undergraduate courses on HCI and Interaction Design. Reading about (Landry and Guzdial 2006) as well as observing a digital storytelling workshop demonstrated the expressive potential of digital stories. But for me, as a computer science student, my focus was drawn to the fact that creating digital stories on computers was expensive and unnecessarily complicated – *you don't need a full fledged*

video editor to create a simple digital story consisting of only pictures and audio. And so I adopted a part technologically-inspired (Beale 2006), part user-centred (Sharp *et al*. 2007) approach to bring digital storytelling to simple, low-cost mobile phones.[1] But this also framed our project in such a way as to give me – the interface designer and programmer – a privileged position in design activities. *What is mobile digital storytelling?* At that time, I thought of digital storytelling as an interface to synchronize audio with photos or, when I was implementing prototypes, a collection of data structures and algorithms. This focus on interfaces instead of people and their stories, coupled with our focus on improving upon – instead of reimagining – current systems required our research problems and methods to be formalized and expressed in terms of tasks, goals, and efficiency (Harrison *et al*. 2007). So I created and evaluated preliminary prototypes on a usage scenario in which participants, whom I recruited on campus, combine a set of three photos with an audio record of reading from a scripted story (Reitmaier and Marsden 2009).

While these experiences fall short of the ideals of user-centred design, and we can certainly question whether reading from a scripted story captures the complexities behind (digital) storytelling, the beginnings of this project allowed me to develop and test out ideas: does communicative power lie with the narrative or visual imagery? And how might photo-driven interfaces differ from story-driven ones? Sketching out, prototyping, and evaluating these ideas allowed me to 'think through prototyping' (Klemmer *et al*. 2006), as well as provided users with an actual usage context (Kangas and Kinnunen 2005). With this context, people in our evaluations could suggest usage scenarios for our system; from 'telling a friend about the club I'm currently at' to 'using it with people in the AIDS clinic I volunteer at' (Reitmaier and Marsden 2009) – showing the potential of digital storytelling and our mobile system.

Situating and re-interpreting digital storytelling

If I can design the right tool, individuals, young and old, literate and illiterate, could create digital stories. This *hero's perspective* of HCI for development (HCI4D) is what I believed in, when I began work on this project. This perspective – *I am bringing digital storytelling to rural African communities* – is all too easily reinforced in countless discussions among friends and family, and, to a lesser extent, colleagues. Digital storytelling *will* fight voice poverty; *will* enable farmers to share their knowledge; and *will* be a valuable tool in citizen media. Save for two short visits, I knew very little of rural African communities or their communication practices and had barely even set foot outside of the university lab, but still I was under the impression that *I* would be bringing digital storytelling to rural African communities. Many HCI4D projects are motivated in part with a similar wish to do good. Such motivations perhaps also play an important part when securing research funding. But such a hero's perspective is also implicitly disrespectful through inattention to users. It can weigh oppressively on the capacity of ordinary people to act. This stance is similar to Lucy Suchman's characterization of *design from nowhere*, where

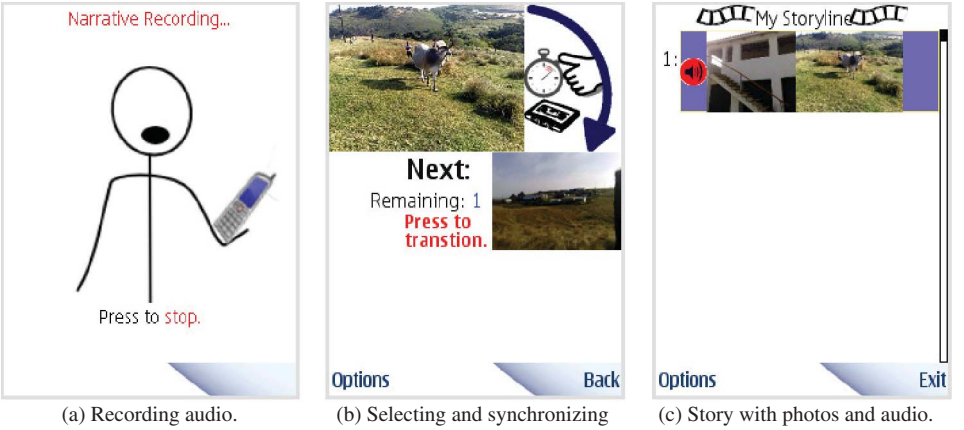
> anonymous and unlocatable designers, with a license afforded by their professional training, problematize the world in such a way as to make themselves indispensable to it and then discuss their obligation to intervene, in order to deliver technological solutions to equally decontextualized and consequently unlocatable users. (Suchman 2002b, p. 140).

By stating my perspectives – extracted through reflection – so explicitly here, it is my goal to make strange what is in fact commonplace, and thus make such perspectives

more visible and open to discussion (Bell *et al*. 2005). At the time, however, while immersing myself into the next chapter of this project, I was largely unaware that I was even taking on such harmful perspectives. To be sure, without critical reflection (Sengers *et al*. 2005) it is difficult to question the appropriateness of the methods and perspectives that have in practice become second nature to us (Winograd and Flores 1986).

Using my previous experience of digital storytelling and digital storytelling interfaces as a springboard, I posited that a mobile digital storytelling system would resonate with the rich oral traditions that play an important part in communities all over Africa (Peek and Yankah 2004). To gather an initial assessment on how our design might perform in a rural African context, I developed another, fully interactive prototype in Mobile Python (Figure 1). This prototype was informed by usability outcomes from the story-driven prototype of our previous, lab-based research (Reitmaier and Marsden 2009). The aim of this prototype was to explore a more elaborate, non-scripted interaction scenario, where users construct their own stories and select their own photos, rather than read from a script. On this interface, the user first records a story or story segment (Figure 1a) and can then add photos to the story (segment). In the next step, the user synchronizes the photos to the audio by transitioning from one photo to the next while the recorded story (segment) is played (Figure 1b). This completes the digital story (segment), and it can be played back, edited further, or an addition segment can be appended to the story (Figure 1c).

This prototype was a first attempt at exploring the meanings *behind* mobile digital storytelling. Perhaps I was even beginning to recognize that I can neither view recoding a digital story as an independent phenomenon, nor can I create and study such a device in isolation. At this time, I was also fortunate enough to collaborate with Nicola J. Bidwell, a designer-ethnographer who uses ethnographic, participatory, and phenomenological methodologies and perspectives in indigenous Australian and rural African contexts. These methodologies are part of a – to me – largely unfamiliar paradigm of HCI, the third



(a) Recording audio.

(b) Selecting and synchronizing photos to audio.

(c) Story with photos and audio.

Figure 1. Elements of the 'story-driven' interface of the first fully interactive Mobile Digital Stories system.

paradigm (Harrison *et al*. 2007), and are grounded in equally unfamiliar and different epistemologies such as phenomenology and hermeneutics that embrace – rather than avoid – reflexive reasoning.

Collaborating

Nicola Bidwell correctly identified that the design of the Mobile Digital Stories prototype of Figure 1 and the methods I used to design it were located (Suchman 2002a) in Western culture: heavily influenced by our use of the written word, mediated forms of communication, and our secondary orality (Ong 1982). In addition, the metrics and calculi I used to measure usability (e.g. speed, efficiency) propagate values embedded in Western culture and are insensitive to, and ineffective in, African context (Winschiers and Fendler 2007). So instead of evaluating and further refining and customizing the prototype, we used this prototype as a tangible artefact – rather than an abstract concept – around which we could conjecture how use might diverge from 'ways of doing and saying' depicted in Nicola Bidwell's ethnography on the communication practices of a rural community in a Xhosa tribal region of South Africa's Eastern Cape (Bidwell 2009). This lead us to conclude that we can not simply translate digital storytelling (Hartley and McWilliam 2009) and digital storytelling systems (Reitmaier and Marsden 2009), from their Western origins, into a rural African community such as Lwandile, the site of Bidwell's ethnography. Instead, we must situate digital storytelling within the community and leave room for community members to form their own interpretations of mobile digital storytelling. I had to recognize the harmfulness of my hero's perspective. I needed to locate myself within this research endeavour and acknowledge that my academic background, culture, and values will inevitably come into play during design activities. I had to relinquish the relatively privileged position I have held thus far in knowledge production processes. But this too, would be a learning process as the shift in perspective this required – from that of an objective and detached third-person scientist to a culturally located, reflexive first-person perspective – did not come easy or natural to me, as my formal training (computer science and psychology) make me more comfortable with the controlled laboratory experiment than in the outside world.

To further our goal of designing a mobile digital storytelling system that is sensitive to rural African communities and users, we integrated Bidwell's insights on rural communication and storytelling practices with my experience of digital storytelling interfaces. Through this integration process, we designed a method, which localizes storytelling and involves rural users in design activities – probing ways to incorporate visual and audio media in storytelling. Products from this method helped us to generate design ideas for our current system, most notably flexibility.

Localizing

The method revolved around a digital storytelling design workshop, which Nicola Bidwell and Susan Hansen implemented in the village of Tschani, South Africa. It is, however, important to note that it was the *fine details* of what people did in the rural setting, depicted in Bidwell's ethnography, that influenced decisions in arranging and conducting the workshop.[2] The aim of the two-day workshop was to allow users to shape the design of a mobile digital storytelling system; so, we focused all activities around a probe consisting of pair of phones, where one phone functioned as a voice recorder/player and the other as a camera and photo viewer. The rudimentary nature of the phone-pair probe (see Figure 2)

Figure 2. The audio (left) and photo (right) phones of the phone-pair probe.

provided participants with enough ambiguity to explore different ways of incorporating visual and audio media in storytelling activities. In the workshop, we asked the six participants, whom we had recruited via a local NPO (non-profit organization) to form three groups, and we spread the workshop over two consecutive afternoons. After explaining and practising the use of the phone-pair's voice recorder, camera, and gallery during the first afternoon, participants then took the phones home with them, so they could engage others and gather story ideas and material in a more natural setting. When the workshop reconvened on the next afternoon, the groups recorded their digital stories in a variety of different ways.

We have published a more detailed account of these design activities in (Bidwell *et al*. 2010), and I do not intend nor wish to discredit the hard work my collaborators put into this project. But for the purpose of this paper, I will focus on how I interpreted the products of this method: a video recording of the workshop, the pictures the participants took and the stories they recorded, as well as Nicola Bidwell's notes.

Interpreting

The design of our most recent prototype was, for the most part, inspired by the ideas we gathered while reviewing the workshop video and focusing on the participants' interactions with each other and with the phone-pair probe. Nicola Bidwell also noted many first-hand impressions and ideas while she observed participants in the workshop and when she assembled digital stories with the participants who indicated photo timings to her on the two phones. These perspectives and 'gut feelings' provided us with additional interpretations (Sengers and Gaver 2006) of events and design requirements, which I used when I later perpetuated, added, and disputed design ideas. Nicola Bidwell steered me through the

participants' photos and stories and through her notes and video of the workshop. By stating her interpretations of workshop and of the video, she provided crucial insights on the workshop and the participants' experience of it. So in essence, she acted as a proxy for the community.

I then watched the video seven further times for inspiration and analysis. The first two viewings familiarized me with the participants and inspired some design requirements. For instance, I conceptually fused the two phones when one participant held them closely together in recording her story (Figure 2); so I noted the requirement that users should be able to view photos as they record. Similarly, I observed how participants sometimes struggled with the text-based menus of the camera and photo gallery but quickly learned how to use the vertical icon toolbar interface of the voice recorder application. These requirements, however, were fairly obvious to extract from the workshop video. But, even with a list of requirements I still did not know how to combine all the design requirements and what the general feel of the interface would be like. I made attempts at analysing and categorizing the types of pictures participants took and the stories that they told. But theses attempts did not lead me much closer to tying all requirements together into a final design.

Instead, it was empathy – not analysing or categorizing – that allowed me to develop unifying, less palpable ideas. With each viewing, I felt like I was getting more and more familiar with the participants. I watched them learn and experiment with the probe's camera – taking stunning photos of landscape, of sunlight through branches or haloing a cow – and become proficient in using the voice recorder – pausing and resuming recordings and playbacks. And yet, some participants seemed to struggle to come up with ideas for digital stories on the first day of the workshop. I sympathized with the participants, as I too sometimes struggle coming up with story ideas even when I know that I have something to say. Nicola Bidwell also noticed this during the workshop and noted that perhaps some sort of scrap-booking functionality would help ease this difficulty.

I was amazed how some participants, who seemingly struggled the most to come up with story ideas on the first day of the workshop, then had taken many pictures when they took the phones home with them and returned to the workshop the next day with four story ideas. Again, I thought to myself that when creativity strikes, things sometimes just fall into place.

I imagined creating digital stories as a puzzle, after watching the way some participants spent large amounts of time searching through photos, while revisiting a couple of specific photos many times. To solve a puzzle people pick up a piece, change its orientation, try out some possible solutions, before placing it near similar pieces. But the groupings that people make while solving a puzzle seldom are the final solution. Before a solution is reached, individual pieces or groups of pieces are moved around to see where they 'fit'. Similar to how people solve puzzles, I wanted the digital storytelling interface to support emergent storylines, where the sequence of the photos can be easily changed. I smiled when I later saw one participant change the ordering again, after she had already recorded her story – thinking to myself: 'I guess sometimes you just need to try it out, to figure out the best solution'.

The final feel of the interface was inspired by how the participants collaborated in creating their digital stories. For instance, I aimed to create a flowing interaction inspired by how one group of three young ladies took turns to say parts of a story, associated with each photo, and fluidly and intuitively knew when to speak. And I synthesized interaction ideas and requirements into an interface that might respond to the storyteller as a friend might; much like the way one young man located photos on one phone to help another

participant as he recorded audio on the other phone – always keeping the resources he required to continue recording available to him.

Looking back at how I analysed and later engaged with the products of the design workshop, I now realize that I was beginning to integrate and appropriate Nicola Bidwell's design methodologies and perspectives. While I quite easily extracted some of the more technical design requirements from the video, I derived others themes, especially in later video reviews, hermeneutically. The workshop video provided me with a partial translation, and the interpretations I formed were an interaction between the '*horizon*' provided by the video and horizon – or understanding of the world – that I, as the interpreter, was bringing to the table (Malpas 2009). As I interpreted, I was also engaging with the participants empathically; I was 'not just [treating] them as anonymous and equivalent units' (McCarthy and Wright 2005, p. 922), and I responded to what I saw as the participant's world from my perspective as a designer.

The current prototype

Our prototype, shown in Figure 3, was developed using Mobile Python. We chose to run it on older (2005) feature phones (Nokia S60 2nd edition), as we hoped to show potential users of the prototype that such a system could become locally affordable in one to two years' time. Users can create stories in a variety of ways on the prototype. They can record audio first and later annotate it with pictures. Alternatively, they can select pictures first and then record a voice-over; or they can use a hybrid approach, iteratively adding/moving/deleting pictures and creating new or changing audio recordings. At any time, users can add, move, or remove pictures and append or overwrite audio. All necessary functions can be accessed via a scrollable vertical toolbar of icons. We deliberately designed our system to allow for ambiguous, open-ended usage, as we did not want to impose a certain storytelling style. This also allows participants to use our prototype in unexpected ways, from which we hope to gather valuable insights on users, their storytelling traditions, and future design directions.

In the field

I chose to field-test our prototype in Adiedo, Kenya because of existing relations between the Adiedo community and me. Adiedo lies close to Lake Victoria in western Kenya, about

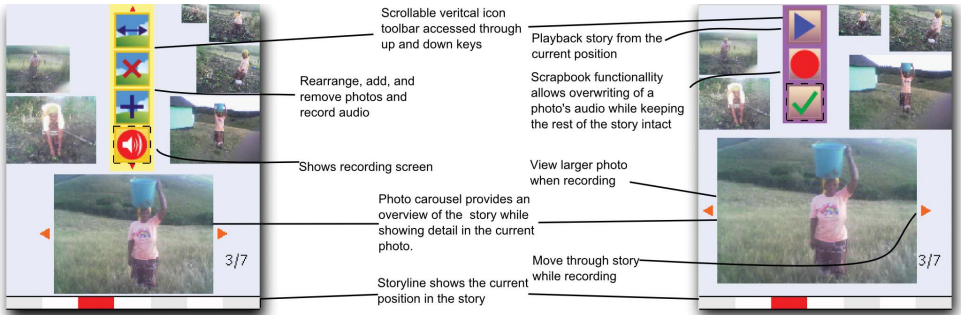


Figure 3. Mobile digital storytelling prototype and elements of the Storyboard (left) and Recording (right) interfaces.

80km south of Kisumu in Rachuonyo District, Karachuonyo Constituency. The adult literacy rate is 58%, compared to 87% in Nairobi, Kenya's capital. Villagers are from the Luo tribe, with subsistence farming being their main economic activity. There is no running water or sanitation, and people collect rainwater from the tin roofs of their mud huts. Grid electricity is not available, so people charge their mobile phones (usually a basic Nokia 1100) at the cost of 10 Kenya shillings (about 10 %) using elaborate combinations of solar panels and car batteries at small shops.

My existing relationship with the Adiedo community allowed me to focus all my time and energy on field-testing our prototype, as opposed to first spending time building relationships with the community. I spent a total of seven days in-situ and recruited as research assistant and translator, a young man named Asher Ojuok, who had completed secondary school a few years earlier. He was fluent in English and Dholuo, the mother-tongue of the Luo. The relationship with the research assistant became very important to my work, as he became essential to introducing the prototype to the community. He acted as a form of cultural liaison: re-distributing some of the power relations and addressing some of the misunderstandings that inevitably associate with cross-cultural research.

Becoming present and adapting

Having arrived in Adiedo and finding myself in an unfamiliar setting, I could not envision a realistic scenario of how our system would be used by Adiedoens. Reflecting on this fact during my first night in Adiedo, made me rather anxiously realize that the question I needed to answer was not 'is our design usable?', but rather 'what is our design?' I realized that I did not know – nor could I predict – what forms and meanings our design would take on in Adiedo. So I decided that rather than evaluating the usability of our system, the primary goal of the fieldwork should be to find out – in collaboration with the research assistant – how our mobile digital storytelling system would be put into practice. How would villagers interpret digital storytelling? So, I adapted activities around the question of 'what forms and meanings would our system take on in Adiedo?' – or, more practically, asking Adiedo's villagers 'how would you use our system?'

Method

Instead of handing out our prototype, with the goal of assessing its usability, to the villagers and collecting them later, we would visit the villagers in their homesteads in a 5 km^2 area around where we were living and then ask them to create their stories, in collaboration with the research assistant, on our prototype.

Once I had familiarized the research assistant with the prototype, he could introduce villagers to digital storytelling and then ask them to create digital stories of their own and assist them in the process. I hoped that this method would allow me to not only uncover usability problems, by observing our prototype being used in different scenarios and contexts, but would also allow me to observe how the research assistant's increasing familiarity with our prototype affected his facilitation and usage – providing me with additional aspects to observe during my relatively short amount of time spent in-situ. I intended this method to deliver differing, and more layered, perspectives and interpretations (Sengers and Gaver 2006) of our system and mobile digital storytelling, in general – helping me to understand what forms and meanings digital storytelling would take on in rural African communities.

Lifting my gaze

Similar to my experiences of reviewing the workshop video, making sense of the observations I made, and experiences I formed in Adiedo was a learning process. During our homestead visits, my observational gaze was seemingly always drawn to the mobile. Perhaps, I was a bit too eager to uncover usability issues, a process that I was very familiar with while evaluating early prototypes in the lab. But before traveling to Adiedo, Nicola Bidwell insisted that I be thorough and ritualistic in my note-taking – *leave no observation un-noted*. These notes would prove invaluable as I later began to make sense of my activities in Adiedo.

The key to uncovering many implications relevant to localizing digital storytelling were buried in more tangential observations, which I reflexively 'extracted' from my cross-cultural encounter in Adiedo through reflection. I made one such observation while visiting the homestead of Mama Rhoda Auma Majiwa. What particularly struck me while observing her 'create' a digital story was that she was not 'creating' a story at all. She was *telling* a story and looking *deep into our eyes*, paying little attention to the recording prototype (Figure 4). This point is, perhaps, so obvious that it seems almost comical to make, but when our gaze is always fixated on the technology and we only think in terms of interfaces and interactions, it can be easy to overlook. Stories may be stored as text, audio, and photos on computers, but for the storyteller – crafting or telling a story – they are not a computational phenomenon, but a social one. The stories that people tell are shaped by culture and rituals, influenced by setting and emotion, and appreciated and interpreted by an audience. And there is a complex social network in which these activities make sense, and hence we 'cannot understand [the] technology without having a functional understanding of how it is used' (Winograd and Flores 1986, p. 6). So in my further analysis I tried to lift my gaze and focus on the whole environment and draw upon all my experiences. This led me to see my fieldwork in a different light, placing observations in entirely new relations.

I began to reflect on other experiences that struck me as 'strange' while in the field. For instance, it was hard for me not to become irritated when activities were delayed, but for the people around me this was seemingly never a problem. This led me to understand that how we approach time is a cultural construct. In my culture, it is perfectly reasonable for me to run into a friend on the street but not have the time to catch up if I'm running late for

Figure 4. *Chon gilala* – a long time ago – says Mama Rhoda of Adiedo, Kenya. She looks deep into our eyes. We record her rhythms and rhymes as she sings and tells a story about her grandparents. She then shows us the exact spot where her great-grandfathers and his friends used to sit and drink and how her grandmother used to dance.

another commitment. In Adiedo, the reverse was true. Villagers value their social relations and friendships more than being punctual. It may have been my plan to quickly pop into the local shop to pick up my cell phones, which had been charging there, but more often than not we ended up staying for tea and talking.

I began to see in what high esteem Adiedons hold their social relations; how they spend great amounts of time attending to these; and how they share and cooperate in their daily lives. Social relations also came into play during our fieldwork. For instance, Asher, the research assistant, packaged storytelling tasks into social relations. So while Mama Rhoda did not feel comfortable using our prototype on her own, she was able to act through Asher by interpreting and understanding his actions. Asher is an intimate part of the Adiedo community, and he knows each and every villager there. So he always had a good understanding of the situation and why someone was having trouble or could even anticipate trouble.

This was a general theme during my time in the field. Whenever people struggled, Asher would always have a suggestion at hand or take over using the prototype. At the time, I sometimes became frustrated with Asher, because he was constantly jumping in and trying to help the participants during our homestead visits – 'interfering' with the research and 'messing up' the data. But now I realize that I placed him in the difficult and uncomfortable situation of having to translate between different cultures – attending to me and my goals, while being sensitive to the needs and expectations of the villagers in his community. He was doing what comes naturally to him – attending to interpersonal relations.

Perhaps it was also naïve of me to assume that the right interface could bridge a cultural, generational, and digital divide. Looking back and reflecting on what Asher so adroitly did in Adiedo, I realize that the solution to make our system more accessible is not computational, but social. In the field, it is all too tempting to view the user as bound by his or her skin (Hutchins 1995). But if I look at the context in which action took place, I realize that many villagers cooperated and collaborated – with each other and with Asher – during digital storytelling actives. People like Asher – expert mobile phone users, human access points (Marsden 2008), or local champions – know their communities, their stories and storytelling styles, and how to interact with them. Perhaps they hold the key to allowing less technology-savvy users to slowly learn how to use an unfamiliar technology through indirect and assisted exposure.

Conclusion

Fieldwork is the cornerstone of cross-cultural research, but for the newcomer the nature and experience of fieldwork, and of cross-cultural practice in general, is shrouded in mystery; it is often black-boxed (Wolf *et al*. 2006) and grounded in different epistemologies (Dourish 2006) from those commonly taught in computer science and psychology. For the newcomer this makes fieldwork, or for that matter, collaborating with fieldworkers a difficult process. With this paper, I hope to demystify and illustrate through examples the fact that field data are not things-in-themselves (*Dinge an sich*), but are constructs of the process by which we acquire them; that knowing, when studying humans, is always emotional, moral, cultural as well as intellectual.

By venturing out of the lab – to listen, to observe, and to notice – the seemingly straightforward questions we ask ourselves in the lab are transformed into a myriad of different questions, some of them having to do with the very essence of culture and being human. Constructs and values that we may have assumed to be universal, such as personhood and how we approach time (Bidwell *et al*. 2011) as well as how we tell and listen to stories

(Ong 1982), are experienced and enacted differently by different people (Dourish and Bell 2011).

So to design effectively in cross-cultural contexts, we must relinquish the privileged, unlocatable position designers commonly occupy in knowledge production processes and be willing to learn about users and their context, but in relation to ourselves. We must learn to lift our analytic gaze and consider observations not just at the site of the interface but beyond the interface. And we must relinquish taxonomic accounts of culture (Dourish and Bell 2011), as well as positivist accounts of human social action, and view users, instead, as situated actors (Suchman 2007), who understand the physical and social reality of their world by interacting, interpreting, and experiencing it through their bodies (Klemmer *et al*. 2006). This, in turn, enables us to view technology artefacts not as fixed objects that prescribe their use, but as a 'medium or starting place elaborated in use' (Suchman 2007, p. 278). As I have illustrated in this paper, this can be a source of genuine surprise and inspiration, and can often hold the key towards situating design.

Acknowledgments

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Notes

1. Details of this design process and the resulting early prototypes have been published elsewhere (Reitmaier and Marsden, 2009).
2. Details on the design of this workshop have been published elsewhere (Bidwell *et al*. 2010).

Notes on contributor

Thomas Reitmaier recently completed his Master's at the University of Cape Town, where he designed a mobile digital storytelling system to suit the needs and functions of rural African communities. During this research endeavour Thomas developed an appreciation for design, culture, rural contexts, mobile phones, and human-computer interaction. He now looks forward to exploring these interests as he pursues his PhD at the Center for ICT4D of the University of Cape Town.

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