
In Dialogue: Methodological Insights on Doing HCI Research in Rwanda

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Abstract

This paper presents a case study of our recent empirical research on memorialisation in post-genocide Rwanda. It focuses on the pragmatic methodological challenges of working in a 'transnational' and specifically Rwandan context. We first outline our qualitative empirical engagement with representatives from the Kigali Genocide Memorial (KGM) and neighbouring institutions. We then describe our application of Charles L. Briggs' analytic communication framework to our data. In appropriating this framework, we reflect critically on its efficacy in use, for addressing the practical working constraints of our case, and through our findings develop methodological insights with relevance to wider HCI audiences.

Keywords

Rwanda; Memorialisation; Methods; Transnational; Postcolonial

ACM Classification Keywords

H.5.m [Information Interfaces and Presentation (e.g., HCI)]: Miscellaneous;

Introduction

In recent years there has been increased interest in the HCI field to explore concepts of memorialisation and other end-of-life related issues [18]. HCI research has

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observed memorialisation within various cultures and settings, and how people orientate to technologies within their memorialisation practices [3]. Our current empirical research project, entitled *Pervasive Monuments*, speaks to this interest. Forming part of the UK government's Digital Economy (DE) research programme, this project aims to generate pragmatic, social scientific and technical understandings about how Information and Communications Technology (ICT) is being used to support practices associated with visiting and managing memorials in an international context.

Specifically, our project focuses on the memorialisation of genocide victims, and has engaged with communities in Slovenia and Rwanda. Whilst being in different countries, the two settings share the following features: the physical sites of mass atrocity are also sites of memorialisation; the events of atrocity continue to affect communities both locally and remotely to these sites; there are pioneering socio-technical efforts taking place to memorialise the sites within these communities; and these efforts embrace the notion of creating permanent, self-sustaining memorials that are financially independent of government institutions. These memorialisation efforts currently engage local and international stakeholders and audiences, and are constituted by complex service relationships and transnational contracts. In our project, we have set out to understand the nature of memorialisation in and around these sites, and to critically explore the opportunities and challenges presented by the stakeholders for managing and visiting these sites in a global digital economy.

The international context for the project has presented us with various methodological challenges for working

with research partners and stakeholders on a subject that is sensitive and difficult in many ways, not least social, ethical and political. Recently there has been much critical reflection within the HCI field on methodologies for doing cross-cultural and transnational studies, thus forming the emerging subfield of Transnational HCI [13,14,33]. This subfield addresses research that "is not defined by a single location, culture, or geographical frame such as the nation state" [33, p.62]. Therefore, as well as connecting to the memorialisation literature, we suggest herein that the methodological explorations within our project may also speak to the concerns of wider HCI audiences including Transnational HCI.

In this paper, we present a case study of our empirical engagement in Rwanda, as a part of our broader memorialisation project. We first outline the particularities of our case, and then describe the methodological challenges that we faced and our efforts to address them by appropriating a novel analytic framework. We conclude by discussing how our methodological explorations may contribute to HCI discourses on transnational and transcultural research, and memorialisation in an international context.

Our Case: Kigali Memorial Centre (KGM)

As part of our broader *Pervasive Monuments* project, we set out to understand the organisational practices of a memorial centre in Rwanda, exploring how the staff appropriated and oriented to digital technologies in their work. In this section, we provide contextual detail on the Rwandan genocide, which frames this study, and then introduce the Rwandan institution, KGM, with which we have been working. We then describe the nature of our empirical engagement.

The 1994 Rwandan Genocide

In 1994 from April 6th, genocide took place in Rwanda, ensuing over the course of 100 days. The causes of this genocide are both complex and contested but in part stem from colonial misrule, the perpetuation of ethnic divisionism, and subsequent political instability following independence in 1962 [24]. The government-supported atrocity was carried out by various elements of the majority Hutu population, resulting in the death of some 800,000+ Tutsis, Twa and Hutu 'moderates' (sympathisers). In the face of UN inaction, the genocide was eventually stopped by the military intervention of the Rwandan Patriotic Front (RPF), a Tutsi rebel group, then-based in neighboring Uganda. The RPF installed a new President, and have since remained the ruling power in a stabilised Rwanda.

Kigali Genocide Memorial (KGM)

KGM is a permanent, self-funded, national memorial to victims of the Rwandan genocide [15]. It was established in 2004 with the support of the Rwandan government and The Aegis Trust (a UK-based charity and NGO with the remit to 'prevent crimes against humanity', who are also responsible for establishing the UK's National Holocaust Memorial). KGM constitutes a mass grave and 'resting place' for the genocide victims (to which 250,000+ human remains have been reinterred), a museum-exhibition presenting a curated narrative of the history and events of the genocide, and memorial gardens that have been designed to reflect the curation of the exhibition.

KGM pursues its mission through the three core departments, of Education, Documentation and Social Enterprise, and the following work programmes, including: an in-house, extracurricular Education

programme for Rwandan schoolchildren; a Rwandan Genocide Archive, with both a physical archive of genocide related media and an online archive of digital resources (KGM Documentation Centre (KGM-DC)); an international tourism service (Discover Rwanda), and not-for-profit enterprise initiatives that aim to sustain the centre; and a social programme that financially supports genocide survivors in their everyday living.

Significant for this paper, KGM is located to some extent within a national agenda of remembering and transformation mediated by reconciliation [11]. This agenda is encapsulated in a government report entitled 'Rwanda Vision 2020' [27], which defines the Rwandan post-genocide era as remembering and recovering from trauma whilst looking to 'reconstruct' the country. In the report, Rwanda is envisioned as a potential 'knowledge economy' and an East African 'IT hub'. KGM connects to this agenda by presenting itself as an emerging institution, supported strategically by Aegis and the Rwanda Development Board (RDB), with an explicitly international outlook, working towards developing global visibility. KGM has also partnered with academic institutions worldwide to develop ICT infrastructure and work practices for the KGM-DC; this has involved pioneering digital techniques that meet international standards. Indeed, KGM's international outlook has motivated its dialogue with our University.

Our Study with KGM

Our research partnership with KGM was grounded in existing institutional relationships. Both KGM and Aegis had previously partnered with our university in British Council funded research concerning genocide education and pedagogy. This background enabled us to approach Aegis and KGM (Aegis-Rwanda) representatives in 2010

with the invitation to partner with us in the Pervasive Monuments project. They were particularly motivated at that time because of being in the process of launching the KGM-DC, and were keen to gain, in their words, an '*outsider perspective*' on their current work practices; at that time, they were proactively evaluating and developing these practices. Our involvement with Aegis and KGM originally came about through being approached by a genocide education expert affiliated with our University who had a decade-long history of working with Rwandan institutions and who also participated in the aforementioned British Council project. We recognised complementary research interests, and he partnered on the project.

We intended for the research engagement with our partners to build upon the existing relationship links and nurture an ongoing *dialogical understanding* [17] that reflected their motivations as well as ours. With this in mind, we intended from the outset to sustain the relationship beyond the scope of the current study, and were led by ethical sensibilities that motivated *reflexivity* in us as researchers. We were also concerned to deliver *real-world* results and impact; to this end we shared interests with KGM to explore the potential of KGM participating in a global DE to build and sustain the institution. Our approach was therefore '*pragmatic-reflexive*' in orientation, and qualitative.

In consultation with contacts at KGM, who managed key departments, we organised to visit Kigali for a week, at a time of mutual convenience to fit with our project timescales and KGM's organisational preparations for the annual period of national commemoration in Rwanda. Together, we co-designed three one-day focus groups to take place, at which

discussions on work practices would be discussed and documented, each relating to a department and attended by the associated staff selected by the KGM contacts. During this process these contacts recommended that we also conduct interviews with the Director of KGM, along with local representatives from a pan-African telecoms company. We visited Kigali in March 2011 and spent time at KGM, experiencing the centre, observing staff and visitor interactions, and conducting the focus groups and interviews, which were video-recorded. We also collected other audio-visual recordings, photographs of the setting, media artefacts published by Aegis-KGM, and internal strategy documents. This data set required, we intuited, a novel analytic approach that addressed our challenge of working with the real-world constraints that we had. In the sections to follow, we introduce the analytic framework that we chose to use, document how we appropriated it for our case, and evaluate its efficacy for enabling us to meet our research objectives.

An Analytic Framework

Given our pragmatic-reflexive perspective, we were open-minded in exploring analytic approaches. Consequently, in responding to our real-world case and its aforementioned constraints, we turned to a framework not knowingly used previously in HCI.

Introducing the Analytic Framework

Our exploratory data analysis made use of Charles L. Briggs' appropriation of the Jakobson-Hymes [5] model of the communicative event, (Figure 1) [5]. A socio-linguistic anthropologist, Briggs believed that most ethnographically-inspired, cross-cultural researchers "seek to impose their own metacommunicative norms on their consultants," [5, p.90] thus committing what

he coined *communicative hegemony* through the use of the standard interview methods. In his view, “both our unquestioned faith in the interview and our reluctance to adopt a more sophisticated means of analysing its findings emerge from the fact that the interview encapsulates our own native theories of communication and of reality” [5, p.3]. Accordingly, Briggs proposed that researchers consider the ‘metacommunicative repertoires’ of the interviewers and respondents and, in addition, use a model of the ‘communicative event’ to highlight the complex fabric of an interview. Briggs’ approach makes use of visual mapping and synthesis of the discovered ‘social roles’, ‘social situation’, and ‘type of communicative event’ of a given interview to reveal contextualised interpretations of interview data and how the norms of the interaction are defined.

Characteristics of the Framework for HCI

We identify four characteristics of the Briggs analytic approach as particularly relevant to an HCI research methodology in the given transnational and pragmatic-

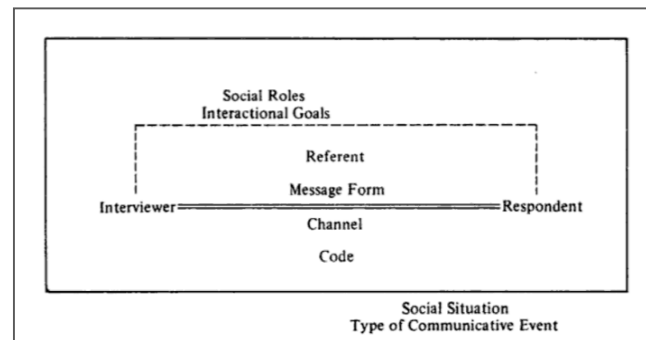


Figure 1: Jakobson-Hymes communicative event model provides a foundation for Briggs analysis techniques [5]

reflexive context. **1) Language independence:** Briggs argues that use of the communicative event model (Figure 1) in his analytic technique may serve as a language-independent ‘heuristic device’ [5, p.40] for conducting interview data analysis, particularly relevant when the first language of respondents is not the same as the interviewers’. **2) Cultural independence:** Culture is often reported as a difficult obstacle to navigate in studying cross-cultural user populations [20, 21]. Briggs’ framework seeks to reveal the particularities of an interview interaction (individual roles, goals, communicative norms of all individuals involved) that may be otherwise diminished in favor of portraying a broad group in a reductive way (according to cultural or national norms, for example). **3) Foregrounds ‘communicative blunders’:** These occur as a natural course of conducting interviews in a culture or language than is non-native to the interviewer(s); Briggs treats ‘blunders’ as data with a meaningful interpretive value. **4) Foregrounds context:** Contextual and situational features are treated as data. We saw how this could speak to the preoccupation with context and situatedness documented in reflective HCI [29] and transnational HCI or HCI4D contributions [4].

These features appealed to us given the Rwandan post-genocide setting mediated by complex socio-political relations wherein language and culture are voiced by KGM as centrally significant. We also recognised that most of the research team members were relatively inexperienced working in Rwanda and with Rwandan cultures; the first languages of all communication actors was not shared. Finally, our research team shared a priority on pragmatic-reflexive practice throughout, which fostered openness to understanding,

and learning from, 'communicative blunders' in our empirical engagement.

The Framework in Use

We shall now describe our appropriation of Briggs' analytic framework. We describe the analytic components as Briggs presented them, and then describe our use of each component on our data. Then, we describe findings generated from the analysis and consider how they inform the larger fabric of the study.

Given our exploratory stance, we applied the framework provisionally to a *portion* of our data set, our first focus group (hereafter referred to as an 'interview'), conducted with the staff of the Education department of KGM. Three researchers were physically present, and another participated via Skype — the research team's education expert. The researchers physically present were British, and the remote researcher was Belgian. Four primary respondents were present; three, Rwandans, were invited to attend by the department head, a Canadian, who was also present as the fourth respondent. Two of the Rwandan respondents were KGM employee subordinates of the head, and the other Rwandan represented an outside institution, Kigali Institute of Education (KIE). The KGM Education head was working voluntarily for Aegis. All members of the KGM Education team were present (the two Rwandan employees and the department head). The interview was held in a room at KGM where educational focus groups were conducted day-to-day by the Education team. All those present at interview were situated in a circle of chairs. Video recordings and transcripts of this interview were selected for analysis. The interview was analysed on two levels: '*metacommunicative*' and '*utterance*,' focused

(respectively) on the interview context and its interpretive effect upon particular interview responses ('utterances'). An explanation of our experience using each analytic level is aimed to serve as an introduction to Briggs' analytic techniques. However, our exposition of this analytic methodology was necessarily abbreviated, and we encourage interested practitioners to refer to Briggs' work [5] for further elaboration.

Metacommunicative Analysis

As a first step, data and secondary sources, including personal accounts from the interviewers in our research team, which revealed information about the *context* of the interview, were fitted to select structures of the communicative event model (Figure 1). That outcome articulated the nature of the *interactional engagement* between interviewers and KGM — explicated in terms of 'type of communicative event', 'social situation', and 'social roles.'

In conducting the metacommunicative analysis, we aimed to identify themes and interactional goals expressed by respondents. We used affinity diagramming to list and group all topical content to articulate themes. We then identified 'interactional goals' for each 'communication actor' (both respondents and interviewers), whereby interactional goals are the multiplicity of motivations an individual has for participating in the interview. Secondary sources, planning documents, communication records, and historical secondary information were used to help inform these judgments. For this interview, the interactional goals showed a notable impact on the language and content of utterances, and were important for facilitating analysis at the utterance level.

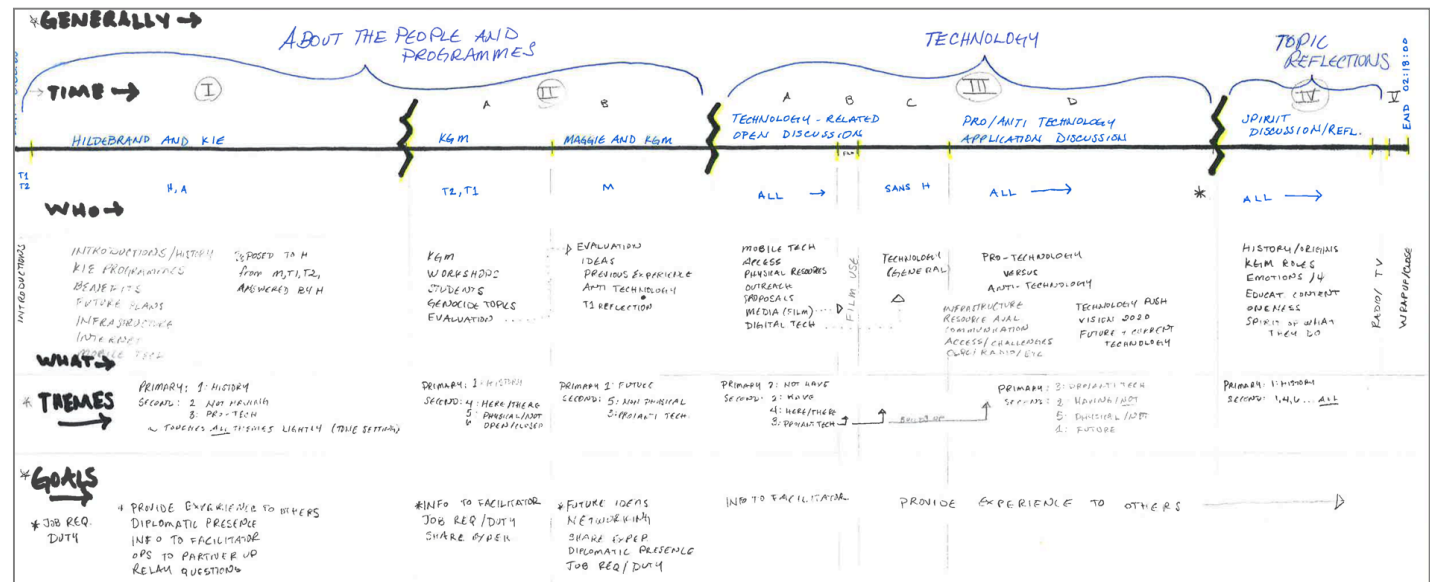


Figure 2: This is the diagram created during the metacommunicative analysis of the interview conducted with the staff of the Education department of KGM. It shows the synthesis of the linear flow mapping with the addition of the themes and interactional goals.

Most importantly, a visual construction of the interview’s linear structure that mapped the general flow and pace changes of the interview was generated (example: from informal conversation, to broad questions, to probing questions, topic and tone shifts, and communicative actors), including other actions outside of the interview goals (Figure 2). We synthesised our identified topics, themes, and interactional goals into a visual articulation of the communicative event, a hand-drawn diagram (Figure 2) constituting the synthesis output of the metacommunicative analysis.

Engaging with the sketch proved essential to our analysis; specifically, it foregrounded the theme of ‘history’, as it visually appeared and disappeared over the course of the timeline. This phenomenon was noticed alongside the visual presence and absence of other themes or topics of focus along the timeline, such as the theme of ‘future’, and at times, ‘technology’ as a central discussion topic. Such observations informed the selection of excerpts and process for the next stage of analysis.

Utterance Analysis

Our next step was to determine how utterances bearing on the identified themes fitted into the broad

communicative structure, in order to look for meaning surrounding responses. The utterance analysis had two components: '*metacommunicative properties*' and '*contextualisation*'. First, *metacommunicative properties* of each selected utterance were identified in terms of its commentary on the communicative process and the referent meaning within the utterance. We drew upon the interview structure and the metacommunicative forms and functions used in the respondents' speech.

To walk the reader through an utterance analysis in this paper, we include the following excerpt from one respondent, the KIE representative. In this instance, the respondent was asked to talk about what he was currently working on; he replied in a seven-minute-long monologue (though this quote is abbreviated).

Okay, thank you. As I said, I am [name omitted] ... It is an interesting project according to the recent history of Rwanda with genocide. The main challenge is education because here genocide is rooted in parents. Then we had recently some problems with the Rwandan schools of genocide ideology... Then the main problem is history, how we teach history. Because history here is like water, where we swim. Then the children here, they have history in their mind. Then as I am a lecturer, I find in my class sometimes students are not opened about the topic. When I speak about Hutu Tutsi, I find that they don't want to speak. Then with technology, and with my visit to the UK, I find that our students need to be opened, then to see what happened in other parts of the world. For example, here in Rwanda, the main problem is an intellectual prison. But by e-learning, by video, they have witness from other peoples and they find that what happened in Rwanda happened in genocide, holocaust, in Germany and so on. And they find Rwanda is not the alone country which suffered. But here in Rwanda we have a particularity. Then, with communication with other students, with e-learning, I find that our students are now opened.

We knew from his introduction and biographical information that this respondent was a professional history lecturer, had performed public speaking roles,

and had previously worked with academic researchers. We also knew that he was speaking in this third (least fluent) language. He was the most senior and distinguished Rwandan present at interview, having taught in the career education of the two other Rwandan respondents and considered a key contact for the KGM departmental head to be visiting KGM.

The above metacommunicative norms of this utterance were congruent with what one might expect as an opening statement from a senior lecturer to a listening audience. The respondent began with an expression of gratitude. Stylistically, this was delivered like an opening keynote; the respondent constructed themes and tensions he determined were important and of interest to the audience (university researchers and KGM genocide educators).

The second component of the utterance analysis, *contextualisation*, involved examining any implicit messages, miscomprehensions, and ensuring that any misunderstandings did not remain undiscovered. In this utterance, the respondent proceeded along a historically contextualised explanation of a recent project at his institution, while ensuring reference to his academic connections to the researchers' university.

Initial Findings

As themes played out over the course of the interview, individuals' stances were found to toggle and approached thematic positions from seemingly *opposite* points of view; both researchers and respondents seemed to do this. These binary oppositions were not static, and were not taken up by any one person with absolute persistence; both respondents and interviewers seemingly moved across the binary

positions throughout the interview. We were not constructing binary oppositions and defining absolute membership to them. For example, we recognised that the KIE representative in the above excerpt shifted between *pro- and anti-technology* positions: at one point (demonstrated in the excerpt above) he identified technology as a positive force for demonstrating global history to his students (“with e-learning, I find that our students are now opened”); but, *later* in the interview, he described technology differently, saying “[technology] is very, very dangerous for us, for our African tradition, because there is – we cut – we cut history – there is no process.”

One significant theme was that of *history/future* (Figure 2). We noticed a large gap in the interview where history, as a construct, was not mentioned or referred to at all. From the diagram, *history* seemed to be offset by the section of the interview where technological artefacts and uses were the primary topics of discussion. This is not to say that technology and history were never mentioned together (as just demonstrated in the above excerpt), but rather, when the conversational topic *focused* on technology (in Figure 2, see the labeled section ‘Technology III’), the references to history vanished, reappearing later as the conversation shifted away from technology. In the course of the analysis, when it became clear that the references to ‘future’ were tied closely to technology references and dialogue, the original *history/future* label became reconfigured to *history/technology*; the analysis was then refocused on the tension between technology and ‘looking toward the past’ (history).

Surprised by our initial findings, our next stage in appropriating Briggs’ method was to try to make sense

of what we had elucidated, and substantiate it. We did this in two ways, by looking to extant literature for theoretical or empirical grounding, and by looking to the broader data set for contextual information surrounding the utterances under analysis.

First, grounding in literature, we found the thematic tendency for a given culture to ‘reference the past first’ to appear as a dimension of understanding culture in anthropological work of Kluckhohn [16], later picked up and coined ‘*past-oriented* culture’ by others [32]. Indeed, Rwandan culture has been identified as past-oriented by Zaharna [26], who explains, “past-oriented cultures might insist on extensive historical contexts for all aspects of a project” [35, p.140].

Cultural models like these (and the more commonly referred to five dimensions of Geert Hofstede [10], of which HCI is familiar) have been criticised for being somewhat reductive and broadly generalising along national boundaries [13]. These critiques urge moving beyond taxonomic models towards an analytic focus on how people enact culture in specific circumstances. Mindful of that critique, we proceeded to understand the *tendency to consult the past (or not) as a feature in the data we possessed*, for the *particular* set of people and relevant to the topics at hand — genocide memorialisation and technology development within a Rwandan organisation.

Historical or anthropological accounts of post-genocide Rwandans also revealed this theme of history consultation and dialogical relationship to the past. Pottier states, “today, those who govern post-genocide Rwanda also imagine the past in order to make sense of the present, but they do so in different, more subtle

ways” [23, p.9]. In fact, post-genocide Rwanda has been acknowledged as becoming more future-oriented than before the genocide [26]. Sub-communities of Rwandan culture appear to be transitioning to include such orientations when aiming to include technology as a critical identity component of national development.

This phenomenon appeared elsewhere in the interview. Upon mention of the Vision 2020 document, the KIE representative reflected on cultural difference and orientation toward technology.

Here, everybody they didn't target about the negative side of technology in our traditional cultures [respondent laughs], because here we have a traditional culture, then sometimes there is a lack of physical contact, because technology is somehow struggling physical, emotional, social contact. It is very, very dangerous for us, for our African tradition, because there is – we cut – we cut history – there is no process. Then what you thought, thought is very, very deep: to think about the link with traditional, traditional culture and, and this technology.

The Canadian KGM head immediately responded to this comment with the following.

Westerners come to Africa, Asia for many different reasons. One reason is they don't feel connected to their history. They've got lots of things to plug in their ears; they don't have a sense of belonging anymore. And [to KIE representative] you have that here, I hope you don't lose it.

In these excerpts, 'technology' seemed to carry an association with 'Western' (or developed) cultural adoption, and appeared to be associated with the future, and future-oriented thinking [30,35].

Critical Reflection on Findings

To recap, initial findings articulated explicit temporal shifts in topic during the interview discussion, suggesting a history/technology binary theme. The analysis also drew on wider anthropological materials,

suggesting that existing anthropological tropes indicated a cultural orientation to concepts of temporality (past-future orientations) in discourse, thus supporting binary oppositions. Our next analytic stage, and a further appropriation of Briggs' method, was to critically reflect upon these initial findings in terms of our perspectives as interviewers.

We reflected on the salience of 'history' in the Rwandans' accounts. All of the Rwandans present were *trained history teachers*, who either work for or had trained at KIE. Also, they are also all genocide *survivors* who, on a daily basis, proactively discuss historical events about the genocide. They do this because, in line with KGM's 'mission', they are politically motivated as history educators [19] to "fight against genocide ideology" – the words of one of KGM's Rwandan teachers. This teacher added in the same interview: "We have been taught a very different history in Rwanda"; "From the colonial period up to 1994, genocide was somehow facilitated because it was over the history and how it was taught". The label 'history' was thus salient in this interview because it reflected a political preoccupation of the given respondents with *making the teaching of history visible* (and seemed inextricably linked to the strategic aims of the KGM Education team and KIE). In interviews with other groups at KGM, the term 'history' was not salient.

We also critically reflected on the apparent talk on technology, represented in the analysis. Firstly, our research objectives, as set out in this paper's introduction, were to invite our partners and stakeholders to describe how they are using ICT in their work, and invite them to critically discuss technological concepts. This explains our topical focus. We reflected

that, at the Education interview, the respondents were invited (both by us and by the KGM contacts) to speak to what they *know*; and they are history educators not technology experts, so perhaps inevitably we found them at interview to ground conversations on technology in their history teaching practices. As the invited KIE representative later conceded, “On technology, I am not very strong”; and KGM head, “We’re not very ambitious with technology”. Significantly, in other interviews for the study, we found Rwandan respondents who *are* technology experts to talk about history in connection to technology and the future in the same utterance and in a more nuanced way. These other respondents are also relatively younger; and we found that generational differences affected orientations to technology by the KIE representative and KGM head. For example, one of the younger KGM teachers acknowledged the following in response to the excerpts given above.

As technology is concerned with this programme, we all agree that technology can help. For example, if each and everybody can access Internet from wherever then they continue to learn about genocide.

We further found that the first topical ‘*shift to technology*’ represented in the linear structure diagram did not reflect the actual instance at interview when technology was reintroduced into conversation by one of the Rwandan KGM teachers. We found more instances of this phenomenon, and also found that the term ‘technology’ was not always used in reference to ICT. Our critical probing then signaled a concern that the diagram may serve to potentially obfuscate detail in the unfolding interactions at interview, with implications for the course of the analysis.

We also found topical *shifts* (indicated in the diagram) to reflect the participation of our education expert, who led the interview planning but was participating *remotely*; with poor, intermittent online connectivity, his ability to observe and make sense of the interactions taking place was inevitably constrained; and when interjecting he tended to keep to the interview schedule rather than flexibly responding to the emergent discussion. The physically present researchers felt obliged to defer to this expert as part of their facilitation role, especially given his limited connectivity. Significantly therefore, we found the ‘shift to technology’ to largely reflect our *practical constraints* on proceedings; and we found the logistics of remote participation to impact the interview discussions.

We also reflected on the second finding – the dynamic phenomenon of ‘consulting the past to look to the future’, as articulated in the literature about Rwandans’ dialogical relationship to the past. In other interviews, we found accounts that broadly *supported* this finding. Significant in the excerpt from the KGM director’s account to follow, is that his sense of valuing ‘future-orientation’ was connected explicitly to Vision 2020 and its plans for ICT-enabled development.

So it’s good to have development, and also to think about preserve the places [taps table] of history. So it’s what I’m committed to, to let people be questioned about it, because sometimes people forget it, to preserve actually different places. But the ‘Vision 2020’, it’s very important because everyone knows what ‘Vision 2020’ is about! I think the ‘Vision 2020’ have made clear the way we want to pass to go to achieve our dreams, as a country and as Rwandans.

In this account, memorialisation practices and specifically the ‘preservation’ of memory are situated within a broader, national context of development. In other interviews, however, we identified accounts that

reflected *alternative* representations of the dialogical relationship. One Rwandan respondent, a technology expert who was not in a strategic role at KGM, stressed that Rwandans, in his generation, “want to recover... they want to give a certain period to remember and then finish, go back to their lives... they are hungry for development and that’s their focus now, seriously”; arguably, this Rwandan conveyed wanting to ‘cut’ history when orientating to the future. From engaging with other accounts like this, we observed that Rwandan orientations to the past and the future were more complex and nuanced than first assumed and represented by the aforementioned cultural concepts.

Discussion

This paper set out to discuss a case study of empirical research we have been conducting in Rwanda, concerning the memorialisation of genocide victims and the organisational practices and digital interactions of a memorial centre in that context. Our specific aim in presenting this case was to discuss the methodological challenges that we encountered and our use and appropriation of a specific analytic methodology in doing our research. We tentatively argue that our methodological explorations will be of interest to others engaged in HCI research in ‘cross-cultural’ contexts.

Grounding our discussion in critical debates

One cross-cultural HCI research area of potential relevance to our work is HCI4D. Ho et al. rather broadly characterise HCI4D by suggesting it is a form of research which “addresses the needs or aspirations of people in developing regions, or that addresses specific social, cultural, and infrastructural challenges of developing regions” [9, p.2]. HCI4D projects are motivated to address technology issues in contexts that

are particularly underdeveloped and are characterised by a *pragmatic* development agenda that has real-world impact. Research projects in these areas often focus on issues of literacy, language, and infrastructure, and are known for applying variations of user-centered design, ethnographically inspired, or participatory processes [9,28] in empirical, design-oriented studies. For example, within Rwanda, previous HCI research has largely focused on designing technologies to support post-genocide reconstruction and explicit programmes of conflict resolution [8].

We make no allusions to doing HCI4D research per se given that our broader project and research questions did not address development activities; rather, we have been focused explicitly on memorialisation practices and engaged multiple communities (some not in ‘developing’ nations). However, we recognise that aspects of our research in Rwanda may offer empirical insights to inform such an agenda. Specifically, HCI4D projects are maturing in their contributions to discourse, moving beyond reports on project impact, successes and failures, and increasingly addressing critical reflection on practice [1,9,14,22,31] and methodological contribution and critique [6,7,25,34].

Equally, another subfield of HCI research to which our work might speak, Transnational HCI, has been at the centre of theoretical critiques of some HCI4D approaches. Challenges have been put forward to suggest that HCI4D can tend towards defining singular cultures or locations presenting them as existing in a vacuum. Transnational HCI alternatively argues for focus on interaction across borders and between cultures. Taylor critiques both HCI4D and Transnational HCI positions as ‘exoticising’ difference-making in

relation to culture and imposing network theories in relation to the transnational [31]. Such critiques are symptomatic of the perceived complexity of designing technology in cross-cultural contexts. There has been much discussion about complexity (in general) [31], methods [1,6,7,12,34], and constraints [22] for HCI projects that traverse cultures and national borders. To date, contributions have grappled with the difficulty of positioning the researcher as an 'outsider' or being preoccupied with cultural difference, as Taylor reflects.

Herein, we point to Transnational HCI and HCI4D to highlight the challenges faced within HCI more broadly for bringing together *critical-reflective* and *pragmatic* concerns in cross-cultural and transnational research. In conducting our case study analysis and appropriating Briggs' framework, we have taken small steps to put critical reflection into practice. In methodological terms, the framework in use encouraged our research team to be rigorously critical and reflective whilst working within the practical constraints of the empirical engagement. This meant, for example, making use of 'communicative blunders' as analytic insights. We thus contribute to HCI a worked case example of pragmatic-reflexive practice, significant for real-world projects. Accordingly, we speculate that the framework could have much to offer the HCI community in speaking to pragmatic, dialogical [17], critical-reflective [29], postcolonial [14], and feminist [2] approaches.

Significantly, the analysis has helped us address our overarching research objectives. We tentatively propose that identifying and reflecting on cultural values and orientations elucidated in analysis has helped us better understand our partners and participants. It has led us to understand that, in this

specific context, elements of Rwandan culture may be manifest by a dialogical relationship with history, and that history remains hugely significant. In turn, this insight has helped us understand the memorialisation practices within the KGM organisation and, more broadly, Rwandan national context. It has also helped us in pragmatic terms understand *how to engage with our partners and setting* in ongoing and future research; specifically, the analysis has sensitised us to the cultural and political significance of the term 'history' in our empirical engagement in Rwanda.

Insights on Rwandan respondents' orientations to the future, associated with technology, have also informed our study. We have learned that the design and adoption of ICT at KGM is potentially shaped by past orientations to history in the Rwandan national culture and in the cultures of the KGM organisation. Moreover, we have learned that these cultures may orientate towards ICT in a way that is in *tension* with or 'cut' from their orientation to history and to the past. The analysis suggested a tendency for ICT to seem future-oriented. In sum, these findings sensitised us to the potential cultural tensions at play in using and valuing ICT amongst other technologies to support KGM work practices, in relation to education alongside other organisational concerns. For instance, 'Consulting the past with aspirations for the future' informed our interpretations of talk at the Education interview about ICT applications for education to support the 'opening' and 'freeing' of students' minds to the world, whilst preserving memories and traditions.

Critical evaluation of the analysis

Our critical evaluation of the Briggs' method within the analytic procedure produced further methodological

insights. Firstly, in appropriating the method, we found the focus on culture and cultural difference to be somewhat disruptive in obfuscating or bracketing off some of the data, in particular through abstracting binary oppositions and categorising topical shifts. The visibility of certain interactional exchanges was lost in the process, along with aspects of organisational communities of practice, and practical politics - *realpolitik*, including, for example, the Rwandan educators political foregrounding of the term 'history' at interview, the interviewers' deference to their education expert, and the featuring of technology-related content in conversation by Rwandans. This critique of the procedure is not a critique of the Briggs' method per se; rather, for our purposes herein, we note the shortcomings of *our appropriation*, highlighting the need for researchers to consider carefully how to ground further appropriations of the method in relation to theories, including cultural theories.

When we say 'obfuscating', we are considering how the analysis helped us address our case study research objectives. We reiterate that our pragmatic-reflexive approach determined our interest in ICT-enabled work practices to contribute *both* critical and constructional understandings of ICT development and use within the global DE. To this end, our study design focused on communities of practice at KGM – including, by example herein, the Education team. With our research objectives in mind, the critical, reflective phase of our analysis led us to question the use of concepts such as past- and future-orientation in broadly articulating 'culture' rather than thinking about how past- and future-orientation may be located within the organisational practices of KGM and other stakeholder organisations engaged at interview. We build on this

insight herein to emphasise the importance of notions of 'community' alongside 'culture' in analysing our case.

On reflection, the aforementioned anthropological perspectives led us, usefully, to locate such phenomena as *dynamic cultural properties* within 'communities of practice'. By recognising *communities* in this way, we then highlighted the *practical* concerns and expertise of teachers, historians, technology experts and others working together and in parallel in the various KGM departments. It also became apparent how these communities overlap and how participation in multiple communities exists; for instance, survivor communities are served by KGM, and yet many KGM staff members are also survivors; and survivors work at KIE, a strategic contact for KGM. Thus, by *embracing community alongside culture* in appropriating Briggs', we have gained a more nuanced view of the particular research setting and population we are engaging.

Insights for HCI4D and Transnational HCI

Researchers in the HCI field value context and cultural norms when conducting cross-cultural studies. Recent methodological trends in such studies advocate (and perhaps require) lengthy field studies, and ambiguously encourage reflective practices and critical methods. To date, most attempts to attend to and account for those research qualities occur in the study design and data collection phases. We argue in this paper that critical, reflective practices prioritising context and cultural dynamics *can* and *should* be incorporated into the analytic research phases *as well*; and we argue that their incorporation may perhaps address more comprehensively the practical constraints within the overall research process. Acknowledging that the transnational HCI or HCI4D project is not simply a

complex case of typical HCI projects but, rather, a growing norm in HCI work as technology globalises, we highlight the importance to HCI communities of recognising the constraints of time and resources differently. Through our exploration of a novel analytic framework, we contribute a useful tool that flexibly handles such constraints and puts critical – and cross-cultural – reflection into practice in a real-world case.

Conclusion

Moving beyond “taxonomic models of culture” towards understanding “cultural change and dynamics” has been suggested within postcolonial computing discourse in HCI [13, pp.249-251]. Progressing from that notion, in this paper we have contributed a worked case example that demonstrates an empirical process of understanding dynamic cultural phenomena as they are located in particular communities of practice. These phenomena relate centrally to the cultural role of history in Rwanda as an important dialogical construct through which memorialisation practices can be better understood by researchers. Finally, we have presented findings as ‘sensitising concepts’ and emphasised their potential utility in developing the work of HCI4D and Transnational HCI. In concluding, we highlight the additional value of methodological tools that promote and sustain reflexivity in research given the ethically and politically sensitive subject matter of our case.

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