On Research Ethics and Representation in Virtual Reality

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ABSTRACT

This position paper approaches issues in the ethics of virtual reality particularly around notions of art as academic research, collaborative ethnographic media production, consent, and representation. These issues are explored through examples of research with the Yong community in Thailand, investigating the use of 360° video for cultural documentation and preservation. Possible ways of addressing some of the ethical issues in virtual reality are suggested, drawing upon collaborative ethnography, collaborative media production, and Value-Sensitive Design.

Keywords: 360° video, virtual reality, ethics, ethnography, Value Sensitive Design.

Index Terms: • Human-centered computing~ Virtual reality • Computing methodologies~ Virtual reality • Social and professional topics~ Codes of ethics

1 INTRODUCTION

Virtual reality (VR) and 360° video is an increasing popular research topic and artistic medium. As VR content rapidly expands in creation and consumption, practitioners and researchers are increasingly identifying related ethical issues [1, 2] and the need for an ethical framework as this IEEEVR Ethics Workshop calls for.

We do not have to start from scratch, however, and we can certainly draw on approaches from related fields in terms of art and research ethics in general and ethics of representation in particular. In this paper we discuss a project using 360° video for cultural documentation and preservation in rural Thailand and highlight the ethical considerations this project raised. We then introduce some approaches from collaborative ethnography, collaborative and participatory media production, and Value-Sensitive Design that might be useful to apply towards a VR ethical framework.

2 CONTEXT

Before moving into an example of a 360° research project and the ethical considerations that arose, it is important to understand the context under which this project developed.

Reese Muntean is a graduate student in the School of Interactive Arts and Technology at Simon Fraser University, and a research assistant in the Making Culture Lab under the supervision of Dr. Kate Hennessy. The lab explores the collaborative development of culturally specific new media applications for communities, museums, and public spaces. The lab has a strong emphasis on media making, artistic practices, and participatory production and design methodologies [3]. These values fostered by the research lab are evident in our approach to our research and collaborations. In this paper, in particular we will draw upon collaborative ethnography, understood broadly as the collaboration between researchers and subjects on ethnographic text or research outputs [4], and collaborative media production, in which researchers work with participants to create a video or photographic project together [5, 6, 7]. These collaborations can occur in many different ways and for diverse research outcomes.

The work of our lab has also been shaped through collaborations with Dr. Alexandra Denes and Linina Phuttitarn, with whom Hennessy worked with in organization and instruction for the Intangible Cultural Heritage and Museums Field School in Lamphun, Thailand, from 2009-2011 [8, 9]. The discussion we present here emerges from that collaboration and new opportunities to work in Lamphun with 360° and drone videography.

3 360° VIDEO IN THE FIELD: LAMPHUN, THAILAND

In 2017 Muntean received a fellowship from the Society for Visual Anthropology to work with Denes at Chiang Mai University to incorporate 360° video and drone documentation in their ongoing work in safeguarding the Salak Yom tradition of Yong minority in Thailand. Their work has a strong collaborative dimension, extending from relationships developed in the course of the Intangible Heritage and Museums Field School.

Salak Yom is a Buddhist festival in Lamphun in which community members and organizations make offerings to the local monks, and some of these offerings take the form of large, colorful, and elaborately decorated structures. The 360° video filming was conducted with Phuttitarn, a Thai researcher who has been documenting the Salak Yom festival for years. We began our work by meeting with local officials, monks, documentarians, and community members. We discussed the technology and identified how they thought it could be used, what important aspects of the festival they wished to document, and what issues might arise in the filming process.

During the days of preparation leading up to the festival as well as the festival days themselves, we would approach people who were hand making decorations, building the towering offerings, or counting the rolls of paper that would be used in the lottery to distribute the offerings. Through Phuttitarn's interpretation, we would explain our work, conduct informal interviews, ask permission to photograph and film, and discuss the importance of what they were doing. After taking some photographs, we would set up the 360° video camera (Ricoh Theta V) and audio recorder.

We realized right away that we needed to explain the technology further to ensure they could provide informed consent. One moment we would be filming a tech-savvy monk who uses Facebook Live to give dharma talks, and right after we would film aunties who are still a bit befuddled by smart phones. This meant asking people if we could film them using the 360° camera required more time and effort to make sure they really understood what the outcome would be. To ensure that people truly understood what and who would be captured in the video, we would take a short video clip, transfer the file to a smart phone, and watch the preview of the video together – allowing them to see all that was being filmed.

We also discovered that how easy it was for participants to forget that they were being filmed. The Ricoh Theta V is quite

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Figure 1: 360° Filming of Salak Yom. Image courtesy Reese Muntean.

small, so when we set it up it is not that different from someone's phone being on a table. Furthermore, in some instances it was necessary for us to set up the camera and leave the area during recording. When someone is photographing or filming in 2D, it is more difficult to forget that you are being filmed when someone is in your face with a camera (this issue has also been raised in interviews in regards to 360° journalism as part of a study in progress).

Phuttitarn later returned to Lamphun for a small screening of some of the 360° videos clips and to gather feedback from the community examine their views on our use of 360° video in documenting and safeguarding their intangible cultural heritage. The community felt that 360° video was especially useful in documenting and presenting the Salak Yom Festival in a respectful and inclusive manner. Compared to conventional cameras, they felt 360° video to be advantageous in simultaneously capturing various cultural elements, both tangible and intangible, including the cultural space, people, and processes of the festive event from all angles. This was an important point because the community believed that the festival should be presented in its entirety without de-contextualizing one element from one another or placing a greater emphasis on certain participants over others just because one was in the video and the others were not.

Given that 360° video is relatively new technology to the community, not everybody has the capability to best view the 360° videos we produced together, but they still welcome it as a potentially powerful cultural safeguarding tool. This project is ongoing, and we plan to return to the community for further collaboration, consultation, and exploration of issues such as enhancing their practical access to the footage, which would maximize the benefits of our work for the community.

4 Discussion

Our experience filming the Salak Yom festival in 360° video brought up a number of questions relating to documentary and research ethics as well as issues of representation. These are not new issues in using documentary technologies in cultural heritage research, but reflecting on these issues in relation to VR allows us as practitioners and researchers to reevaluate and reinterpret best practices from media and visual research.

4.1 Research Ethics

Research ethics is one area that we can revisit with VR in mind, though the issue here is with visual art in general as research practice [10]. As researchers, media producers, and artists, we are regularly creating works of art as part of our research. The Salak Yom project is an example of this kind of art-led research. There is a tension here, in that the production of art does not necessarily require the ethics approval process; however research does. It seems as though one must divide work into art and research, when in practice – when out in the field as a creative producer making art that will in some way impact academic research – that divide is not so clear cut. Indeed, in writing on participatory media research, Chalfen notes that the ethical dimensions of the work are still problematic and that existing ethics were created with word-based researchers in mind [5].

In terms of communicating research that has a strong artistic basis or component, some conferences have started incorporating pictorials and image-based papers, as well as video and demonstration tracks. On some level researchers are recognizing that the system of traditional papers and journal articles is limiting; it excludes research that is image-based or better communicated in a visual way. If this is an indication of transformation in knowledge transfer and translation, perhaps there should be similar shifts in ethics and research preparation.

One possible approach to address this issue could be the incorporation of documents of engagement into participatory production and research processes, though this may require a shift in practices and policies of research ethics boards. Rather than, or in conjunction with, deciding upon all research questions and instruments before collaboration begins, a document of engagement could allow all parties to outline the ground rules for working together in a way that is more appropriately flexible when working on long term collaborative media production research [4, 11]. This approach might also be useful as a way to revisit informed consent (which can be easily muddied by different translations, understanding, and potential uses [12]) and approval processes in case imagery collected might be used in a different way than originally intended.

4.2 Representation

In our work with the Yong community, we drew on collaborative ethnography and media production methods [4, 6, 7] in an attempt to represent the community members, festival, and cultural heritage in a way that could serve the community's goal of safeguarding their tangible and intangible cultural heritage. To this end, the audience for our work is largely the community itself. This project was filmed in a particular context with a particular aim, but we drew on practices of collaborative ethnography and participatory media production to attempt to address issues of representation (of 360° researchers, filmmakers, and subjects) in VR in general.

In regard to the representation of researchers and filmmakers in 360°, we can first refer to ethnographic film from the 1960s that sought to include context in the film visuals by showing filmmakers' tools like lights, microphones, or even the filmmakers themselves [6]. While it may not be appropriate to include the researchers in all 360° video projects, this is something that Muntean and Phuttitarn experimented with during the Salak Yom festival, placing themselves as researchers in the documentation of the events. More contemporary practices in visual anthropology use the filmmaking and review process itself to generate discussion with subjects about issues of representation and social justice [13]. Projects are created based on community direction to shape the methodological approach and detailed content of the work, including showing the production process and documentation of collaboration in the final work itself [14, 15].

The way events or points of view are filmed and depicted should also be carefully considered. During the Salak Yom

festival, Muntean and Phuttitarn discussed with monks and officials what would be important to film and what might be an issue. For example, in certain parts of the Salak Yom Buddhist rituals, customary gender practices must be respected. In these instances, we were able to set up the camera and operate it from a distance, documenting the rituals without disrupting the traditional setting or causing any discomfort to the ecclesiastical body. Through our discussions, it was clear that while we as women should not be in certain areas of the rituals, it would be okay for the camera (and all future viewers of the footage) to be positioned areas we ourselves could not be during the filming process. Officials and monks also suggested to place the camera near to the counting of the lots that occurs to distribute the offerings, a part of the event that many people do not have access to. Communities may have different concerns for what is shown or shared, as Hennessy noted from her previous work in Lamphun [16], so a collaborative process can ensure that the events or points of view are appropriate.

Figure 2: Screenshot from 360° video of counting lots. Image courtesy Reese Muntean.

Thought should also be given to how subjects and participants are represented in 360°. With the claim that VR is the "ultimate empathy machine" [17], researchers are investigating the effects of VR on people's perceptions and attitudes towards marginalized groups. While researchers may have the best of intentions, it is not always clear from the research if and how issues of representation are being addressed. Who is representing whom and for whom?

Working closely with members of the group being represented is one way to address this issue. Perhaps this is being done, but not well communicated in the research literature. If this is the case, we can look to practitioners furthering the field of Value-Sensitive Design [18], who call for a strengthening of voices of participants and collaborators in collaborations and in writing as well as for making the voices and values of researchers clear [19].

5 Conclusion

In our discussions and attempts to identify and address ethical issues in VR for cultural heritage research, we have looked to existing best practices and evolving guidance from related fields of research. From our research backgrounds in an interdisciplinary collaborative media lab and our experiences of conducting fieldwork with 360° video, we see great value in practices of collaborative ethnography, participatory media production, and Value-Sensitive Design. We have argued here that these practices are helpful for VR researchers and content creators as we collectively strive for ethical practices that both build on legacies of visual ethics research and practices while addressing the challenges that new documentary technologies present.

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