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"You feel, in that moment, you are sitting next to them!": exploring audience responses to virtual reality nonfiction in the home

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Between 2017 and 2020 our interdisciplinary research team has explored the potential of virtual reality for documentary within the Virtual Realities: Immersive Documentary Encounters project. [Link] Drawing on Computer Science, Documentary Studies and Experimental Psychology, we have conducted a series of quantitative and qualitative studies; we've created an online mediography which offers a snapshot of the themes, teams and extent of English language VR work between 2012 and 2018; and we've commissioned three path-finding VR projects.

In seeking to understand the potential of VR for documentary, audience research has been central to our project. Our experimental lab-based studies have explored Empathy, Prejudice and Prosocial Behaviour [link], Viewer Synchrony & Co-Presence, and the effect of user posture on emotional impact in one of the commissions.

We have also undertaken a major study to explore how audiences experience VR nonfiction in sociocultural context. In order to gain an understanding of how VR might fit into people's wider media useage we designed a qualitative audience study, and set out to establish a diverse cohort of households in Bristol. We posted a call online for volunteers [http://vrhouseholds.co.uk/] and, wanting to include the perspectives of participants who are poorly reflected in research into emerging media technology, we also worked with two community organisations; Knowle West Media Centre, an arts centre based in a lower-middle income area of Bristol, and Refugee Women of Bristol, a "multi-ethnic, multi-faith organisation which targets the needs of refugee women in Bristol." In partnership with these two groups, we co-hosted six informal VR experience days where people could drop in and try VR - often for the first time. After following up with people who showed an interest in the project, to talk through the approach and process, we settled on 12 households including 35 participants; a mixed group socioeconomically, culturally, and in terms of gender and age.

We gave each household an *Oculus Go* pre-loaded with 46 pieces of curated VR nonfiction content. We selected eight of the most popular themes revealed by our mediography work – Space, Human Migration, Art & History, World Cultures, among them. We spread the study out over several months to gain insight into what participants made of VR beyond their initial impression, and to explore whether they formed habits in relation to this new platform. Each week for two months we encouraged study subjects to engage with content around a new theme. (We defined a minimum study duration of 10 weeks: 8 weeks of structured usage which included a 2 week 'pause' over the Christmas period.)

We talked to participants about their experiences in two in-depth semi-structured group interviews – the first when we delivered the equipment, and another at the end of the study. Additionally, prompts encouraged participants to feedback via What's App or through the website. We transcribed the interviews and conducted an inductive thematic analysis of the data.

Responses to VR Nonfiction

Participants from all households, across all demographics, saw positive potential in virtual encounters with real people and places in VR. They made clear connections between the affordances of VR for immersion and presence and their sense of engagement with nonfiction themes.

"It didn't matter where I went, I felt like I was in it, you know? On Valens Reef I'd find myself holding my breath, because it felt underwater."

"In the story of water in Pakistan, where the community were gathering outside of their house and they were kind of coming up with different ideas of how to clean the water. You feel - in that moment you are sitting next to them."

Participants felt that that their understanding of factual subject matter was enhanced by the feeling of virtual proximity to people and places in VR, and by the perspective taking allowed by 360 degree media.

"I think you get a lot more from VR. Being able to understand the person's story - like the blind guy in [Notes on Blindness: Into

Darkness]... It just gives you more of a sense of what he's feeling. You wouldn't get that watching a documentary on a flat screen."

"VR helps you understand real world problems. You see it from their perspective. You can understand them."

Research participants made frequent comparisons between VR and TV in which they drew out the value of immersion for conveying a vivid sense of real-world scenes.

"It's better in VR because you can look up at the buildings, you can see the sky; you can turn around. Whereas you wouldn't get that watching TV."

"360° immersion in the rubble somewhere in Syria hits home a lot harder than it does watching on a 48" TV, because it's all there, around you."

We were interested to note how the values that participants highlighted in these VR experiences resonated with currents within the documentary tradition – in particular the quality of experience prized within Observational Cinema and which Direct Cinema pioneer Richard Leacock called, the "feeling of being there".

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Alongside these positives, participants also expressed a number of pertinent reservations about nonfiction VR. Some had concerns about the emotional and persuasive power of the medium. Others worried that presence had the potential to amplify the impact of distressing or intense content, with implications for vulnerable users.

"I have had to flee... I have had to run for my life. I don't know if that would trigger a memory."

"I'd be careful about showing it to people on drugs, or if they've got mental illness, because I think it could be very confusing" Some participants mused about VR's persuasiveness, and wondered about its potential for manipulation.

"Actually, I trusted the content in the VR more... because I was in it. So I think it could be really persuasive, which is interesting."

"I suppose - in that it had the potential for a person to empathize more deeply with a subject - that's like the currency of propaganda."

Others noticed how, while presence endowed content with a compelling veracity, it also obscured the mediated nature of the content – the director's choices and point-of-view.

"It's not the same, because you feel immersed in it - you feel like you've been somewhere, and you feel like you know about it; but actually, you just know one person - one filmmaker's - perspective."

While they offered these valuable insights, participants also expressed reservations about VR as a medium at home, and demonstrated those through a lack of sustained engagement. Seven out of the twelve households stopped engaging after one or two weeks. For three others, it was a more gradual tapering. Only two households persevered until the end of the study, and they conceded that doing so was out of a sense of duty to the research project. The headset was the problem. Most felt VR to be unsociable when others were at home, and they felt vulnerable if they used it when they were home alone.

More research will be needed to understand immersive media's potential for nonfiction in a domestic setting. Perhaps augmented or mixed reality platforms might deliver some of what participants valued in VR, without the sense of dislocation from other people and the physical environment. However, participants' wish for sociality led them to speculate on the potential of VR for social connection. Some wished that they could jointly experience the VR content that was made available within the study. Others mused on VR's potential for co-presence with others who they were separated from. With Covid-19 now enforcing social distancing, and people turning to virtual reality as a platform for connection rather than isolation, their insights take on particular relevance and poignancy, and suggest that sociality ought to be a central concern within future VR nonfiction research and production.

You can read a full analysis of the Household Study in Convergence: https://journals.sagepub.com/doi/10.1177/1354856520979966