

2020

The Visit VR. An immersive experience to counteract stigma about dementia.

Volker Kuchelmeister

UNSW University of New South Wales Sydney, kuchel@unsw.edu.au

Jill Bennett

UNSW, j.bennett@unsw.edu.au

Gail Kenning

UNSW, gail.kenning@unsw.edu.au

Natasha Ginnivan

UNSW, n.ginnivan@unsw.edu.au

Melissa Neidorf

UNSW, m.neidorf@unsw.edu.au

Follow this and additional works at: <https://scholarworks.rit.edu/frameless>



Part of the [Interactive Arts Commons](#), and the [Interdisciplinary Arts and Media Commons](#)

Recommended Citation

Kuchelmeister, Volker; Bennett, Jill; Kenning, Gail; Ginnivan, Natasha; and Neidorf, Melissa (2020) "The Visit VR. An immersive experience to counteract stigma about dementia.," *Frameless*: Vol. 3 : Iss. 1 , Article 6.

Available at: <https://scholarworks.rit.edu/frameless/vol3/iss1/6>

This Research Abstract is brought to you for free and open access by RIT Scholar Works. It has been accepted for inclusion in *Frameless* by an authorized editor of RIT Scholar Works. For more information, please contact ritscholarworks@rit.edu.

The Visit VR. An Immersive Experience to Counteract Stigma about Dementia

Volker Kuchelmeister

University of New South Wales Sydney

Jill Bennett

Rochester Institute of Technology

Gail Kenning

Rochester Institute of Technology

Natasha Ginnivan

Rochester Institute of Technology

Melissa Neidorf

Rochester Institute of Technology

The Visit is an interactive 6-dof real-time Virtual Reality experience, developed from an interdisciplinary research project conducted by artists and psychologists working with women living with dementia. Visitors are invited to sit with Viv, a life-sized, realistic and responsive character whose dialogue is created largely from verbatim interviews, drawing us into a world of perceptual uncertainty, while at the same time confounding stereotypes and confronting fears about dementia. The characterisation has scientific validity but also the qualities of a rich, emotion-driven film narrative. The point of the work is to draw the viewer into the emotional/perceptual world of Viv.

RESEARCH BACKGROUND

This project investigates the affective potential of immersive technologies and content from in-depth qualitative research with people with lived experience of living with dementia. The ageing population and dementia are key issues facing society in the 21st Century. Bio medical,



Fig. 1. Digital human character Viv in her home, a 3D reconstruction of one of our participants former residence.

social science, and neurological perspectives are increasingly well-documented. What is not understood well is the lived experience. The project develops new methodologies for engaging with people living with dementia to understand their experiences and uses immersive technologies to embed the audience as a visitor into Viv's world.

DESIGN

The character's movements are driven by motion capture and her facial expression and speech

synchronised with the script delivery. But she also exhibits a level of autonomy and responsiveness. Viv is semi-aware of the presence in her home. The system analyses the viewers' attention by examining the gaze direction. This allows the character to respond in a more natural way. She makes eye-contact and sometimes smiles if the viewer looks at her. The viewer's role shifts from a passive observer to an active participant in the story. The narrative supports this notion, the viewer takes up the role of a (imaginary) visitor, represented as a disembodied hallucination. This approach has the potential to increase the level presence and engagement with the character and a heightened empathetic response.

Originally developed as an interactive video installation, *The Visit* was subsequently ported to Oculus Quest VR and is also available as an app for mobile devices.



Fig. 2. Dynamic facial expressions.

CONCLUSION

This project investigates how the audience, through the use of technology, become immersed in the visit with Viv. In doing so they become aware of their own responses to the character and the condition and, as evaluation has shown, increase empathy, and decrease emotional distance. *The Visit* VR has been invited to be shown to Dementia Australia CEO and staff in Melbourne and Sydney. Audience members commented on the experience with Viv

suggesting “It has definitely opened my eyes to the creative ways we can express or translate mental health research to make it more applicable to the general population”.

Keywords—*Virtual Reality, Dementia, Expressive Digital Human, Performance Capture, Experience Design*

REFERENCES

Kuchelmeister, V. 2020. The Visit project website. <https://kuchelmeister.net/portfolio/the-visit/>

Kuchelmeister, V. 2020. Virtual Production and Realtime Filmmaking technologies for the independent filmmakers. FKT, Vol 74, Berlin.