

Using Virtual Reality to Engage in Dementia Care

EUROPEAN AGEING NETWORK

CONFERENCE 2018

Dr Tanya Petrovich

**Business Innovation Manager
Centre for Dementia Learning
Dementia Australia**





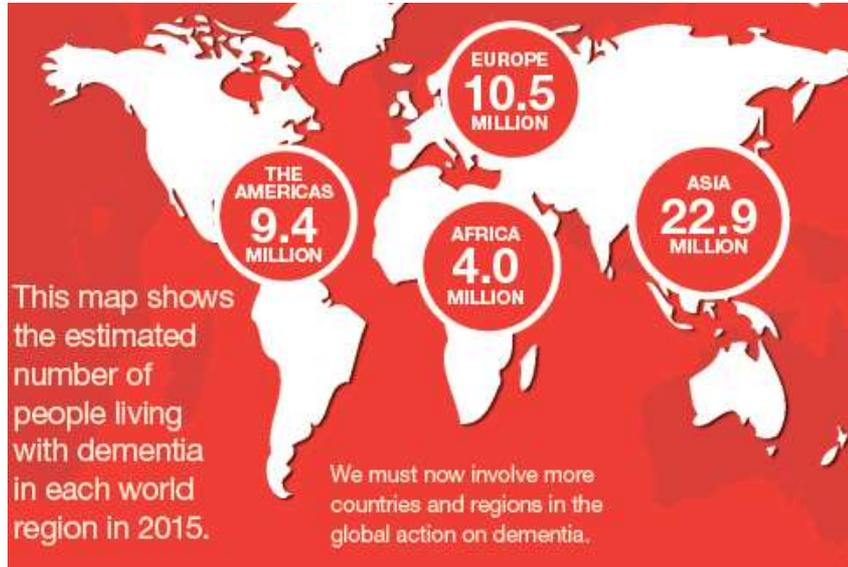
**dementia
australia™**

The new voice of Alzheimer's Australia

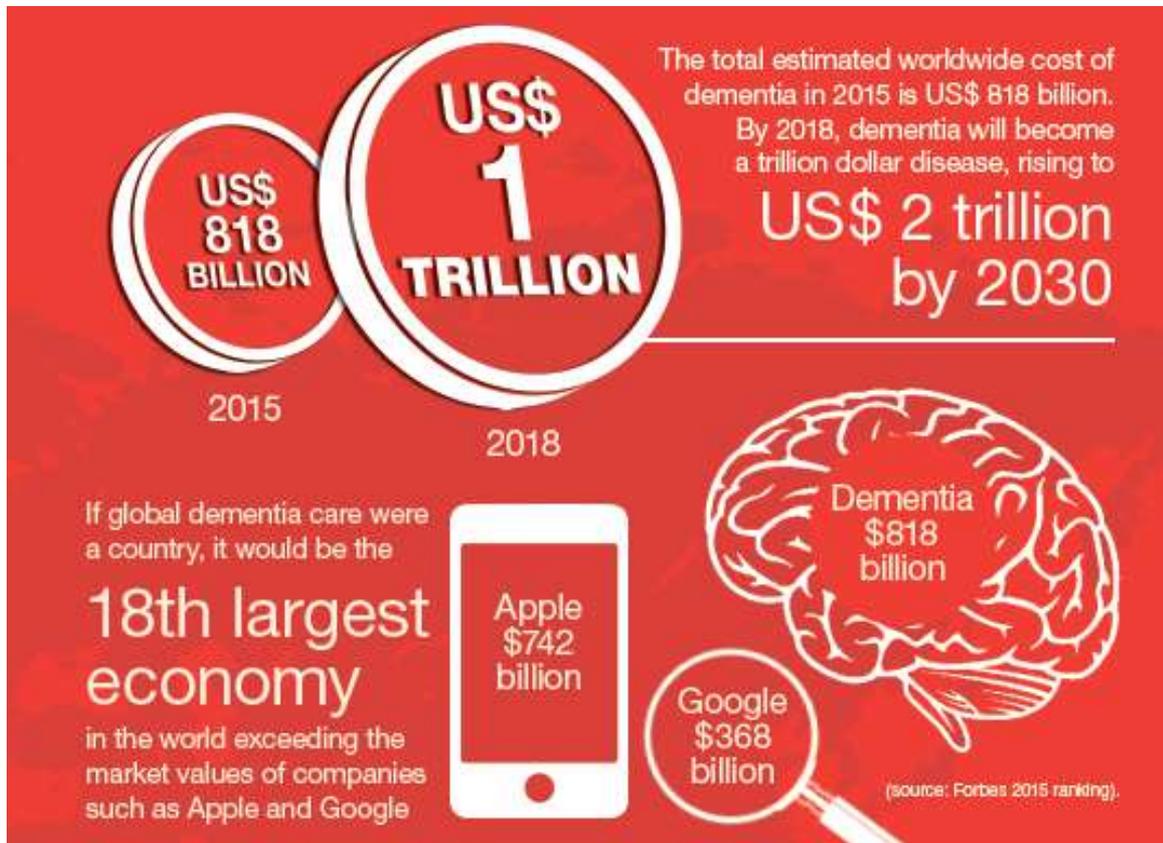
We have officially changed our name to Dementia Australia. With more than 100 types of dementia – Alzheimer's disease being one – our new name reflects that, as the peak body, we are here for people, of all ages, living with all forms of dementia, their families and carers.

“Is there a future for long term care in Europe?”

Dementia in Europe



Impact of Dementia



No Cure for Dementia



Centre for Dementia Learning

Our aim:

To create unique learning experiences which touch, move and inspire participants and organisations to transform their dementia practice.



Traditional Training



A woman in a white dress stands with her back to the camera, gesturing towards a large, glowing red hand-shaped light fixture on the wall. She is addressing a group of people seated in a room with a dark ceiling featuring several large, circular, glowing red lights. The room has a vintage aesthetic with a striped armchair, a lamp, and windows. The overall lighting is warm and red-toned.

Perc Walkley Dementia Learning Centre

A person is standing in a dark room, looking at a large projection screen. The screen displays a bright, glowing scene, possibly a virtual environment. The person is wearing a dark t-shirt and pants. The room has a dark ceiling with several circular recessed lights. A large teal circle is overlaid on the left side of the image, containing the text "Virtual Dementia™ Experience".

Virtual
Dementia™
Experience

Multi-Sensory
Environment

“ Came with a bit of a negative attitude, left with a can’t wait to get to work and try and implement a lot of things..... Made you think about how someone with dementia sees the world!”

Course Participant

Health Awards

2015 Microsoft Imagine Cup-



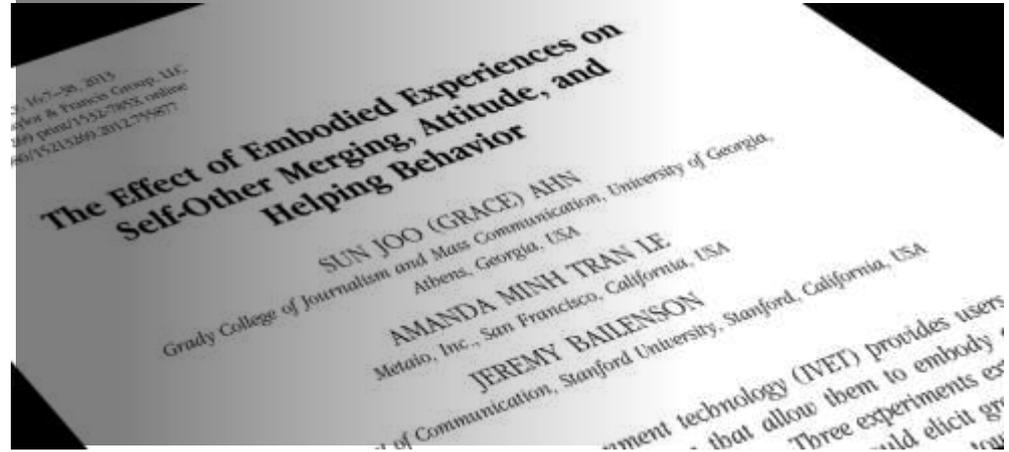
i-Awards - 2014



MEDIA INTEREST



Does VR work?



‘This sense of self-other merging in the virtual environment transfers to the physical world and translates into actual helping behaviour, even when the other person is a complete stranger.’ S.J. Ahn et al.

SWIN BUR NE

SWINBURNE
UNIVERSITY OF
TECHNOLOGY

Faculty of Health, Arts and Design

**FIGHT ALZHEIMER'S
SAVE AUSTRALIA**



**Evaluation of the Virtual
Dementia Experience**
Report

Prepared for
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Liam McGuire
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17 June 2018

Swinburne University of Technology Research Intern
Learning Evaluation

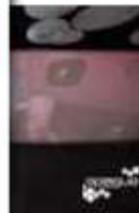
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Evaluation Approach:

- 96 participants
- 40- VDE; 56- Workshop
- 2hrs- same room, facilitator
- 86 Females, 10 males
- Average age 46
- 7 years in aged care
- 54% Australian born- 19 other nationalities

Results

1. Knowledge of Dementia Enabling Environments- VDE participants identified more dementia-friendly changes
2. VDE participants showed a 3 fold increase in Empathy
3. Both groups reflected on care practice and training
But, VDE participants responded from the perspective of a person living with dementia

Virtual Dementia Experience - for Medical and Pharmacy Students



MONASH
University

Article

Qualitative evaluation of how a virtual dementia experience impacts medical and pharmacy students' self-reported knowledge and attitudes towards people with dementia

Julia F-M Gilmartin-Thomas

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John McNeil

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Dementia
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Impact of a Virtual Dementia Experience on Medical and Pharmacy Students' Knowledge and Attitudes Toward People with Dementia: A Controlled Study

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Mobile Tech

Oculus Gear and Cardboard



2016

ENABLING

EDIE™



EDIE Evaluation

- AAV Training sessions – 180 Participants
 - Enabling EDIE – headset VR which
 - VDE™ – wall-based VR -sensory experience of dementia
 - Standard training — classroom based education
- Procedure
 - Pre-test, post-test, follow up design.
 - Short structured interviews at post test and follow up -Self report questionnaires.
- Does EDIE improve:
 - knowledge of dementia, attitudes towards dementia, empathy and understanding of care needs of people living with dementia?
- Results available shortly

EDIE Awards

Simulation Australasia 2017
Project Innovation Awards

ITAC 2017

Best Aged Care Software
Development and/or deployment



Dementia Friendly Home- 2016



THE DEMENTIA- FRIENDLY HOME

Tap anywhere to begin

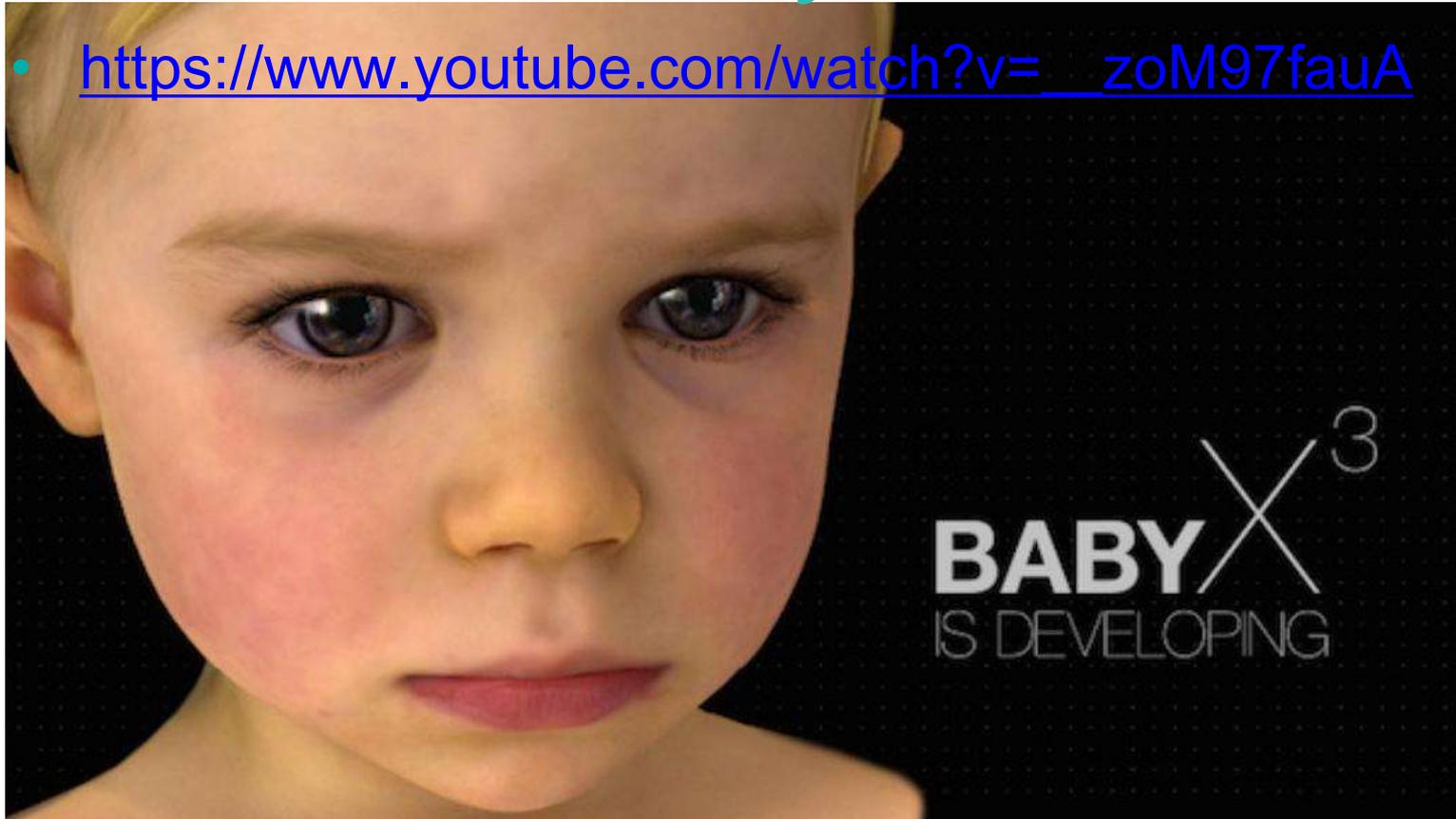


Jim the AVATAR 2017



AI AVATAR: Baby X

- https://www.youtube.com/watch?v=__zoM97fauA



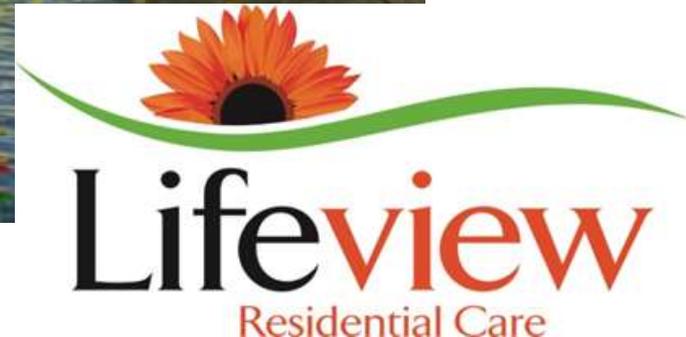


**Tech To
Engage &
Assist People
Living with
Dementia**

2014 - AVED- Applying Virtual Environments for the person living with Dementia



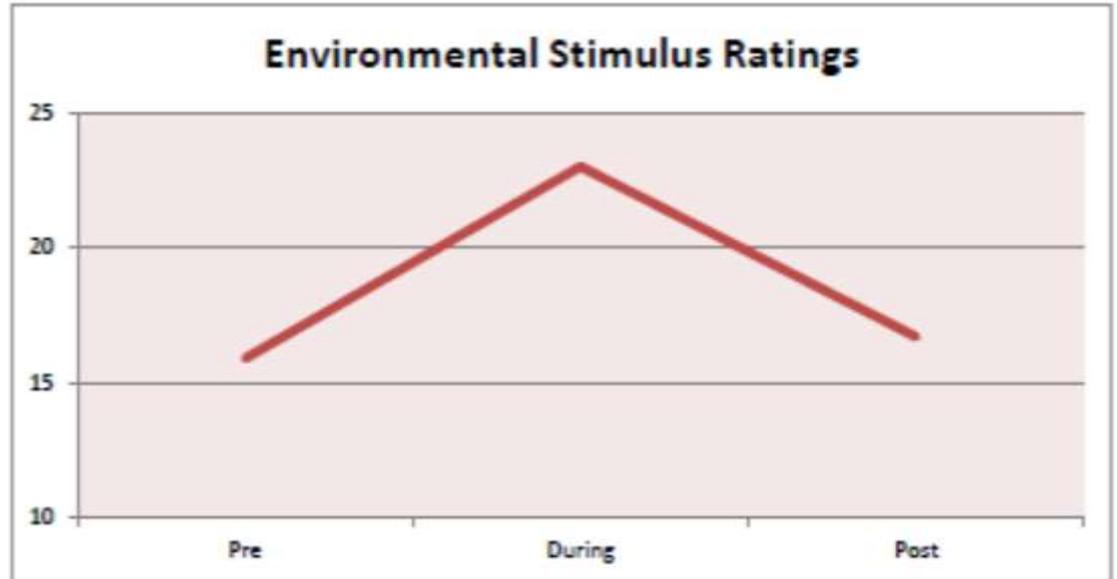
The Virtual Forest - 2016



The Forest — Enviro Stimulus rating

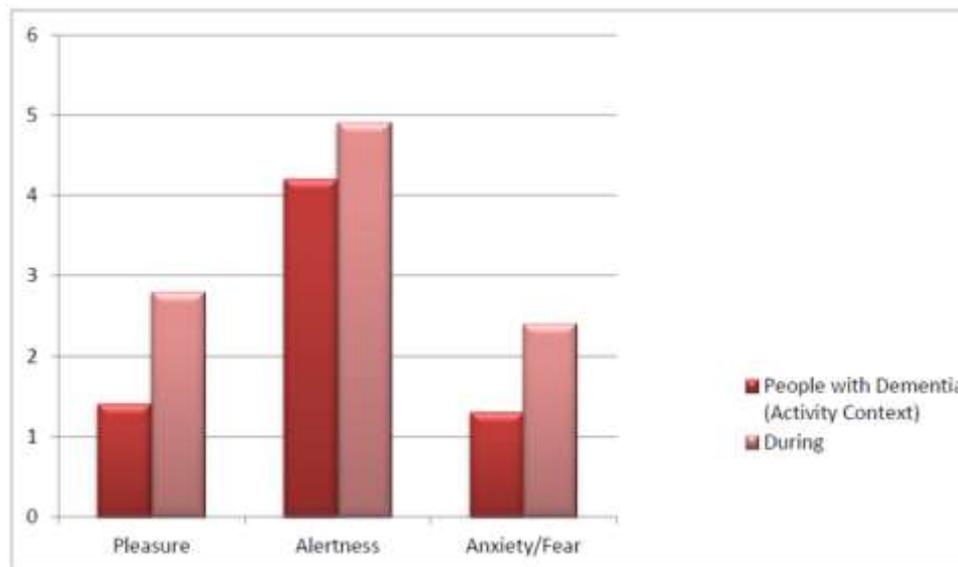
Main Objectives:

- Engagement
- Enjoyment



The Forest – Observed Emotions

- **Pleasure** ↑
- **Alertness** ↑
- **Anxiety** ↑



A Better Visit

Develop a tablet based program designed to ensure family visits are interactive and meaningful for both parties



Co-creation and investigation of social interactions



Augmented Reality

Virtual Reality – an artificial world, mock scenes that mimics real life

Augmented Reality – existing world with layers of computer-generated visual and/or audial information applied in real time

Augmented Reality



Thank you



**dementia
australia™**



dementia.org.au

National Dementia Helpline

1800 100 500



For language assistance
call 131 450