

## xR HEAD

# eXtended Reality Health Economic Acceleration and Development



## CareGiVR: Building Self-Efficacy in Dementia Care Through Immersive Education

### PROJECT FAST FACTS

**PARTNERS:** Red Iron Labs Ltd. and Lethbridge College

**AWARD:** \$250,000

## THE PROBLEM

*Training professional and informal caregivers through new and creative approaches that are effective and accessible has become essential. This is especially true for a disease such as dementia where patients may show aggressive behavior, which in turn leads to high stress for caregivers and compromises the health and wellness for both caregiver and patient alike. Current training for caregivers is mostly limited to workshop delivery relying on traditional teaching methods with limited opportunity to develop competence through repetition.*

## THE SOLUTION

*The CareGiVR project will create a VR training platform for caregivers allowing them to interact with virtual patients who demonstrate a thorough range of emotions produced through Artificial Intelligence and performance (motion & facial) capture. Users will have the ability to observe and experience multiple caregiver roles, and characters are recognizable and relatable. Virtual beings are designed to exhibit signs of anxiety and aggressive behaviour and offer a cross-section of society with varied genders, ages, and ethnicity. Through this platform, Caregivers can practice responses in a variety of scenarios, receive immediate performance feedback and repeat as necessary for ongoing iterative learning without the costs and logistical challenges of a facilitated workshop.*

Increased self-efficacy (the belief in our ability to meet challenges) has been linked to the reduction of caregiver stress. Caregiver stress affects not only caregivers but patients, employers and the health system. Self-efficacy improves resiliency in caregivers leading to improved patient-caregiver interactions, enhanced continuity of care and economic benefits for the health care system.

## PROJECT OBJECTIVES

- Increased ability for caregivers to meet the challenges in managing aggressive behaviour associated with dementia
- To lower healthcare systems expenditures for dementia care through lower disability claims, lower stress-related caregiver hospitalizations, less staff turnover, and lower training costs over time.

## ABOUT xR HEAD

*In partnership with the Alberta Chapter of the Virtual Reality / Augmented Reality Association (VRARA), Alberta Innovates is proud to announce the eXtended Reality Health Economic Acceleration and Development (xR HEAD) program. This program will be a first-of-its-kind opportunity for stakeholders in Alberta's virtual, mixed, and augmented-reality (collectively 'xR') health innovation ecosystem to come together in a coordinated way to jointly develop xR innovations that can enhance patient care or support the training of health professionals. These opportunities will be co-identified and co-developed by health innovation stakeholders and will align to Alberta Innovates' four research and innovation priorities, the Alberta Research and Innovation Framework (ARIF), and will create economic and health system economic value.*

*Learn how*

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