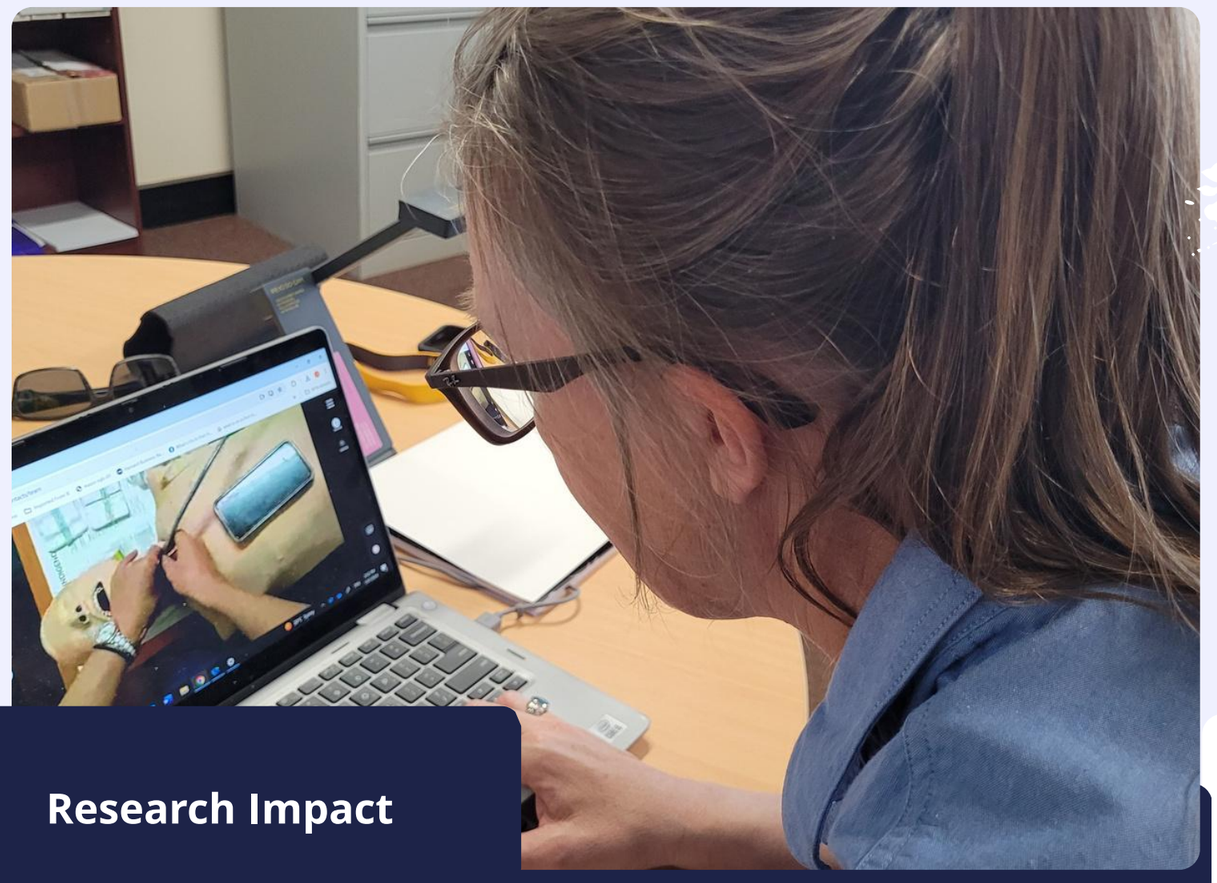
T: +61 1800 841 989 E
help@agili8.com W:
https://agili8.com

Smarter. Faster. Safer virtual care using XRAI Vision® smart glasses



Research Impact

- A remote hospital staff was saved from deadly infection & potential amputation in just 15min, saving at least AUD$64,554 surgery, 12 clinicians, 354 hours patient wait time & 1.3 tonnes of carbon footprint
- Using live “virtual hands -on” guidance through smart glasses overcomes the tyranny of distance, socio-cultural & language barriers, limited resources, costs and time constraints
- Co-designing with Aboriginal communities and clinicians resulted in 100% user acceptance & ease of use with minimal learning curve



Abstract

Clinical trial using XRAI Vision® smart glasses to close the gap for remote & Aboriginal patients with diabetic foot ulcers

Research Objectives

- To test XRAI Vision® advanced remote collaboration system using patented deeptech innovation
- To test network connectivity using mobile hotspots, Wifi & Starlink in 8 remote sites in the Pilbara
- To test smart glasses as a new modality of virtual care to expedite triage, diagnosis & intervention in remote areas

Method

Research Design Mixed-method approach combining quantitative and qualitative data

Participants

25 in the cohort, including Aboriginal & non-Aboriginal patients, frontliners in remote areas & metro virtual experts

Data Collection

- Time series
- Workshops
- Online surveys
- In-person interviews
- Peer reviews by clinicians

Data Analysis

Statistical analysis

Results Evaluation

Patients

Patients value time, expert opinion on-the-spot & costs savings the most, followed by Aboriginal patients feeling culturally safe with privacy maintained

Feedback

Patients’ consensus was that this solution is critical to close the gap for remote & isolated communities

Frontliners

Nurses, Aboriginal health workers & frontline doctors value expert opinion in real time the most, followed by time, convenience for patients, safety & privacy

Feedback

Involving a multi-disciplinary team in real time is important & applicable for multi-domains & industries

Experts

Offsite experts ranked connectivity, time & costs savings as most important, followed by enhanced safety & on-the-job training for juniors on real patients, not just VR play

Feedback

Live virtual hands on patients To guide frontliners made it an immersive experience & should be used beyond wound care

Challenges solved

- Lack of prompt accessibility to healthcare, hindered by vast distances, lack of specialists & travel costs in the Pilbara
- Increasing complex diseases with decreasing supply and high churn of skilled clinicians in Indigenous, rural & remote areas

Recommendations

- To extend XRAI Vision® to paramedics, urgent care, ICU & industrial health for faster emergency response to reduce ramping, adverse events and skills shortages
- To roll out this solution nationally & globally to improve health accessibility & equity for Indigenous, rural & remote communities

Conclusion

- Teleporting experts’ hands & tools enables frontliners wearing smart glasses to work handsfree on patients in real time under virtual guidance from offsite experts
- Proven to save significant time, money, human resources and carbon footprint while reducing misdiagnosis & adverse events with better patient outcomes

Research dissemination

- Innovation NationTV Episode5,airedon Channel 9 on 5 May 2024, available online: https://innovationnation.tv/story.php?id=au%20&id=43
- MTP Connect, “WA MTP Sector Spolight featuring Agili8” forum, presented at Harry Perkins Insitite of Medical Research on 15 Oct 2024
- Auscelerate, “Agili8 is bringing virtual “hands-on” care to patients – wherever they are”, 11 Feb 2025 published online https://auscelerate.org/agili8-is-bringing-virtual-hands-on-care-to-patients-wherever-they-are/

Project Lead Agili8
Trial Period Aug 2023 - Aug 2024
Researchers WA Royal Flying Doctors Service, WA Country Health Service, WA East Metro Health Service
Supported by Western Australian Department of Health through the Future Health Research & Innovation Fund with keystone partners Rio Tinto and BHP