



**Zoe**  
Nursing  
graduate

# AR/VR and AI in Nursing Education

Skye Giannino RN, MHPE, Cert IV  
TAE

Educational Team Leader Clinical  
Labs, Tafe Queensland, Gold  
Coast



## Mixed reality

A blend of virtual and augmented reality where real world and computer-generated elements can interact.

Creates a truly immersive experience for learners





The need for MR in Nursing training

# Application of MR in Nursing education

- Virtual patient simulations
- Interactive anatomy lessons
- Emergency response training
- Guaranteed exposure to pathologies and scenarios
- Developing Clinical decision-making
- Communication training





# Holographic Healthcare Training

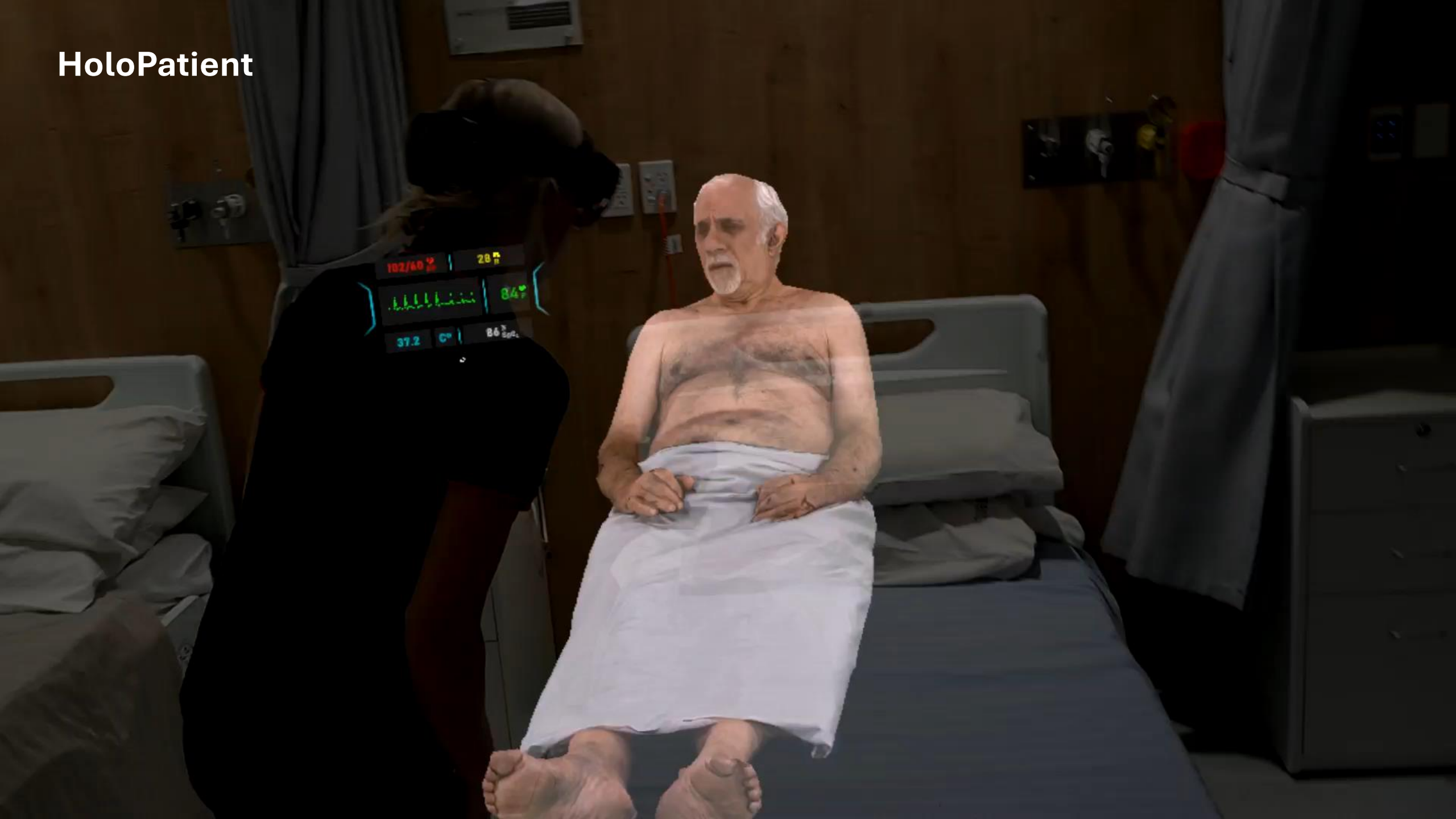
## Applications used by Tafe Queensland

- **HoloPatient:** Simulated holographic patients for **clinical assessment and diagnosis**
- **HoloHuman:** Interactive anatomy lessons using **mixed reality**
- **HoloScenarios:** Real-world clinical training modules for **decision-making and emergency response**



# GigXR

# HoloPatient



HoloHuman





# Benefits of MR

---

**Improves engagement and motivation = improved knowledge retention**

**Enhances critical thinking and clinical judgment for clinical decision making**

**Provides safe-to-fail environments for students**

**Improved skill proficiency**

**Flexible delivery modes**





# Feedback

## Students

*"It feels very realistic"*

*"I could really see and feel what a real patient situation would be like....I felt like a real nurse!"*

*"Great learning experience"*

## Teachers

*"The visual impact of the HoloPatient is equal to 1000 describing words"*

*"Listening and watching the students problem solve while using the platform, and seeing their 'light bulb' moments is extremely rewarding."*

*"This is the future of education!"*





What's next?



# Thank you and questions

## References

- Frost, J., Delaney, L., & Fitzgerald, R. (2020) Exploring the application of mixed reality in nurse education. *BMJ Simulation and Technology Enhanced Learning*, 6(4), pp. 214-219. <https://eprints.qut.edu.au/197199/>
- GigXR. (2022). *Holographic healthcare training*. <https://www.gigxr.com/>
- Microsoft.(n.d). *Microsoft Hololens2x education*. <https://www.microsoft.com/en-us/hololens/industry-education>
- Verkuyl, M., Violato, E., Harder, N., Southam, T., Lavoie-Tremblay, M., Goldsworthy, S., ... & Atack, L. (2024). Virtual simulation in healthcare education: a multi-professional, pan-Canadian evaluation. *Advances in Simulation*, 9(1), 1-10. <https://advancesinsimulation.biomedcentral.com/articles/10.1186/s41077-023-00276-x>