# Use of Augmented/Virtual Reality to Enhance Teaching and Learning

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#### INTRODUCTION

This learning community comprises faculty members, teaching support staff, and NUS IT staff from different faculties, departments, and units. One key aim is to learn collaboratively about Augmented/Virtual Reality (AVR) technologies to keep up to speed about its uses in higher education from established literature. We also aim to share practices among ourselves who have used AVR in our teaching and learning activities and understand the best practices in the context of NUS. We also hope to reach out to colleagues and students to share and hear from them about AVR. Ultimately, the goal is to curate a body of knowledge around AVR in among our teaching and learning community and support the use of AVR to enhance our teaching and learning in NUS.

#### SHARING BY MEMBERS

### **Community Formation & Meetings:**

2024

8<sup>th</sup> Aug

2024

24 Feb

2025

Best practices for AR/VR course implementation and logistics

Cost analysis and budgeting strategies

18<sup>th</sup> April

Vendor collaboration experiences and project management insights

Solutions for common implementation challenges

 Knowledge sharing from multiple departments including Biochemistry, Nursing and Psychology Medicine

Research into AR/VR educational applications

Engaged research assistant to spearhead acceptance survey

Initiated comprehensive literature review on AR/VR trends in education

Planning to launch student and staff perception survey study

Planning collaborative research documentation for potential publication

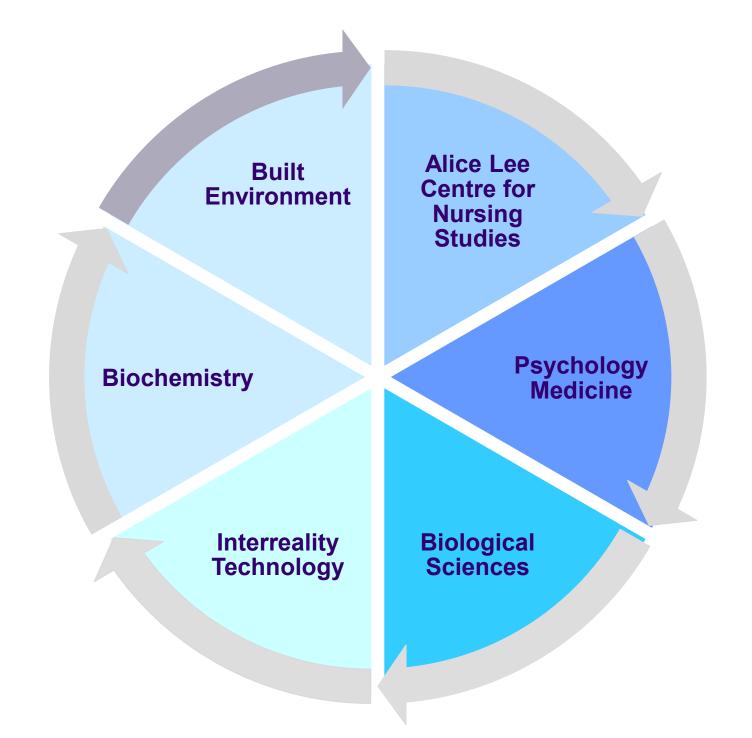
# REFLECTIONS FROM OUR LEARNINGS THUS FAR

# Interdisciplinary Collaboration

- Focus on sharing successful AR/VR implementations across disciplines.
- Themes that emerged:
  - Course integration of AR/VR technologies
  - Development and implementation of AR/VR learning experiences
  - Research into AR/VR educational applications

# **Key Challenges Identified**

- Understanding Different Disciplines: Lack of disciplinary knowledge about other colleagues' fields can lead to difficulties in understanding each other's application of VR.
- Scheduling Conflicts: The busy schedules of participating members made it difficult to maintain a consistent meeting schedule, with some members failing to attend despite confirming their availability. Efforts will be made to improve the scheduling process.
- Staffing Changes: One of the co-leads recently resigned, and in the period before his departure, he was often traveling and disengaged from organizing meetings. Although he had recruited two members from his department, they also stopped participating in meetings after his resignation.



#### **Opportunities Identified**

**Development of** showcase applications and testing protocols

**External speaker** and vendor engagement plans

**Potential** presentations at **HECS** 

Continuous evaluation of **AR/VR** teaching effectiveness

**Understanding** perceptions of VR/use of VR in different disciplines

#### **Acknowledgements**