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Digital Engagement and Examples for the Cultural Sector

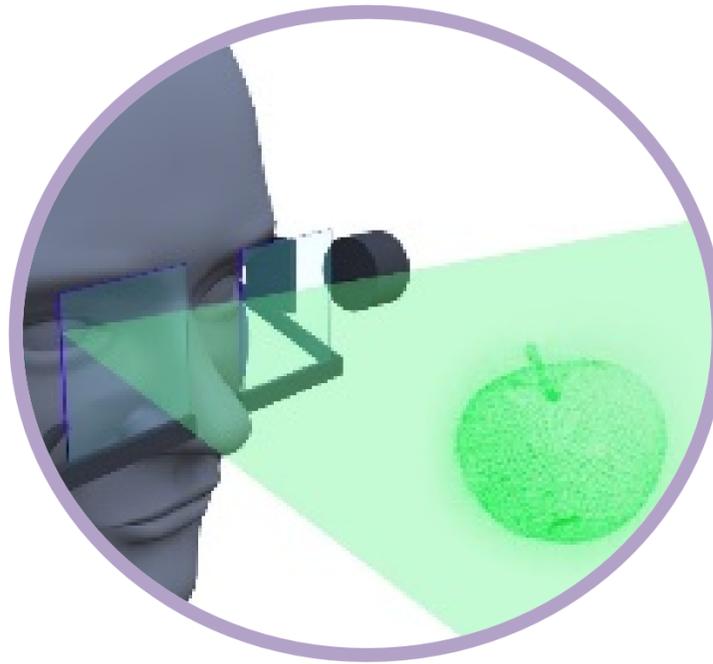
Dr Frank Guan
Assistant Professor
Singapore Institute of Technology

ABOUT THE WEBINAR

In this webinar, Dr Frank Guan will give an overview on the development of ICT technologies and their applications in various sectors. He then introduce some examples of technologies, such as Virtual Reality (VR), Augmented Reality (AR) and Gamification that can be used for digital engagement in the cultural sector. Dr Guan will also share his experience in creating accessible technologies for beginners and in translating digital engagement tools online.

ABOUT THE SPEAKER

Frank is currently an Assistant Professor at Singapore Institute of Technology (SIT). His research interests include Virtual Reality (VR), Augmented Reality (AR) and Artificial Intelligence (AI). Frank had been leading and conducting research in three large research centres with collaborations from both academics and industry. He currently sits on the editorial board for two international journals and serves on the advisory board of a local tech start-up.



Digital Engagement and Examples for Cultural Sector

Dr Frank Guan
Assistant Professor
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INTRODUCTION

EXAMPLES

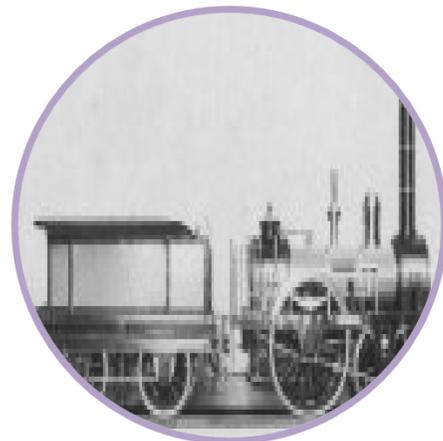
COLLABORATION

INTRODUCTION

EXAMPLES

COLLABORATION

Treasure the Past, Enrich the Future



Around 100 years

Around 70 years

Around 40 years

End of 18th Century

Water & Steam Power

Beginning of 20th Century

Electrical Power

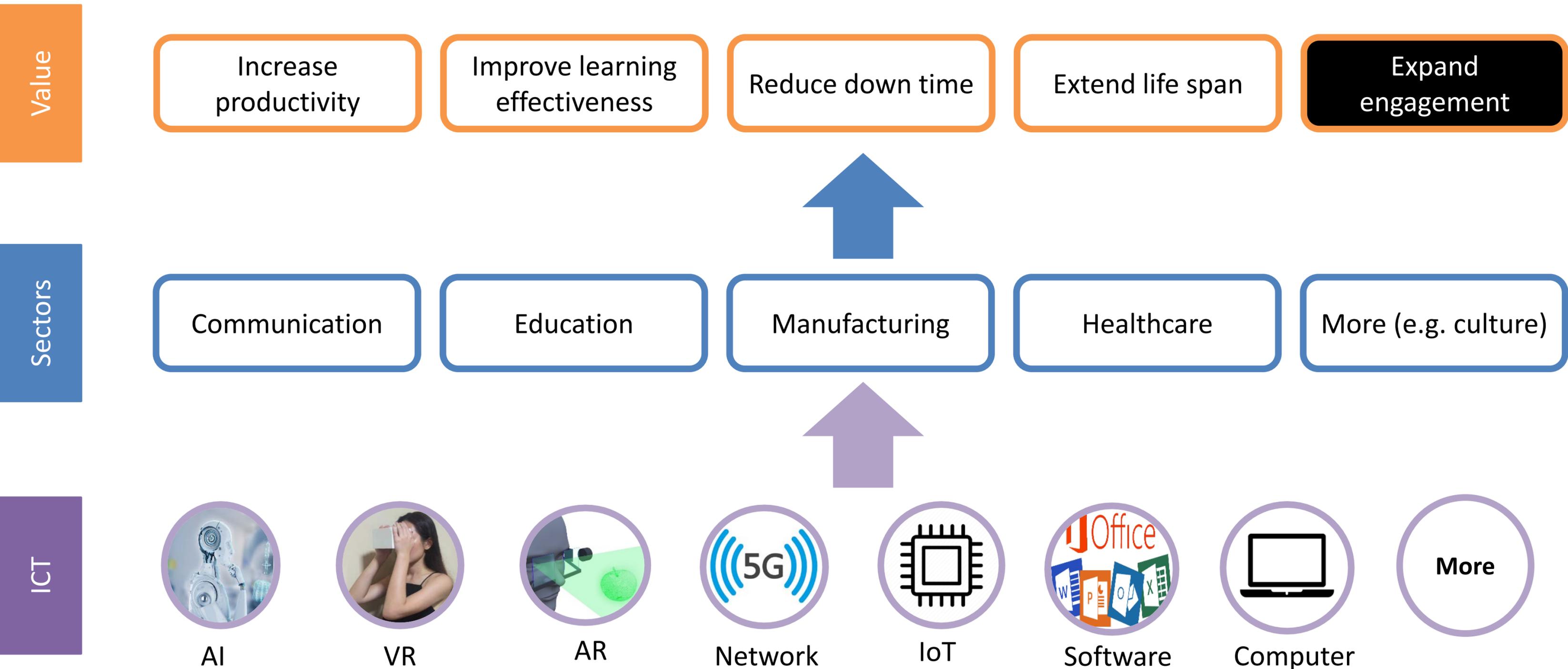
Early 1970

Electronics & Computer

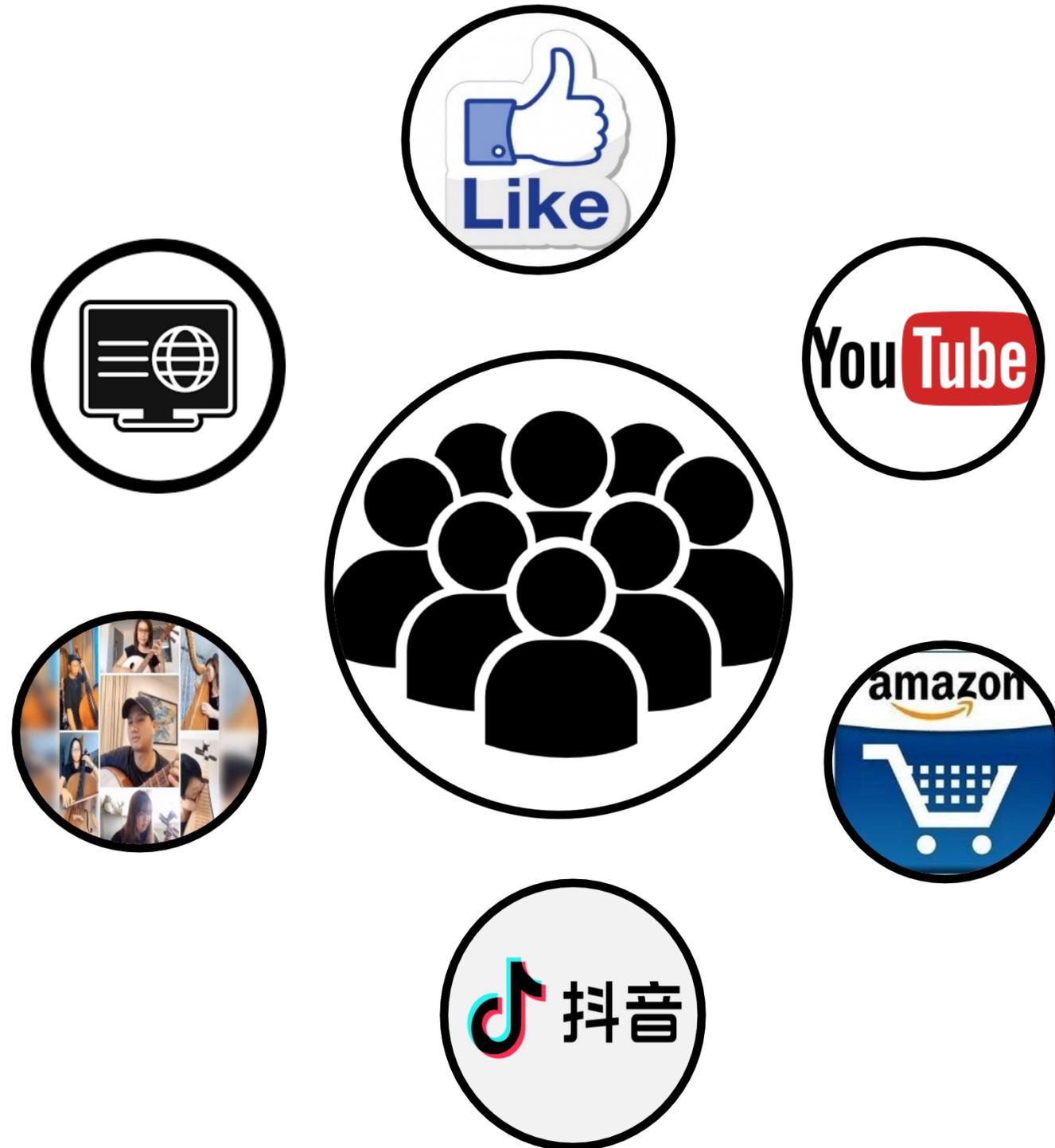
Today

AI, VR/AR, 5G, IoT, Cloud, etc

Overview of ICT Technologies



ICT Tools for Digital Engagement

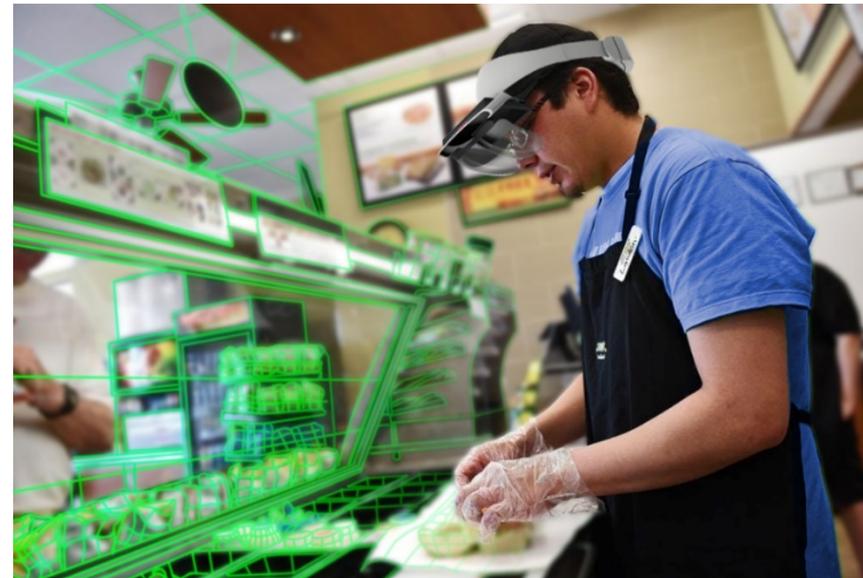


Digital Engagement for Cultural Sector

Novel Digital Technologies



Virtual Reality (VR)

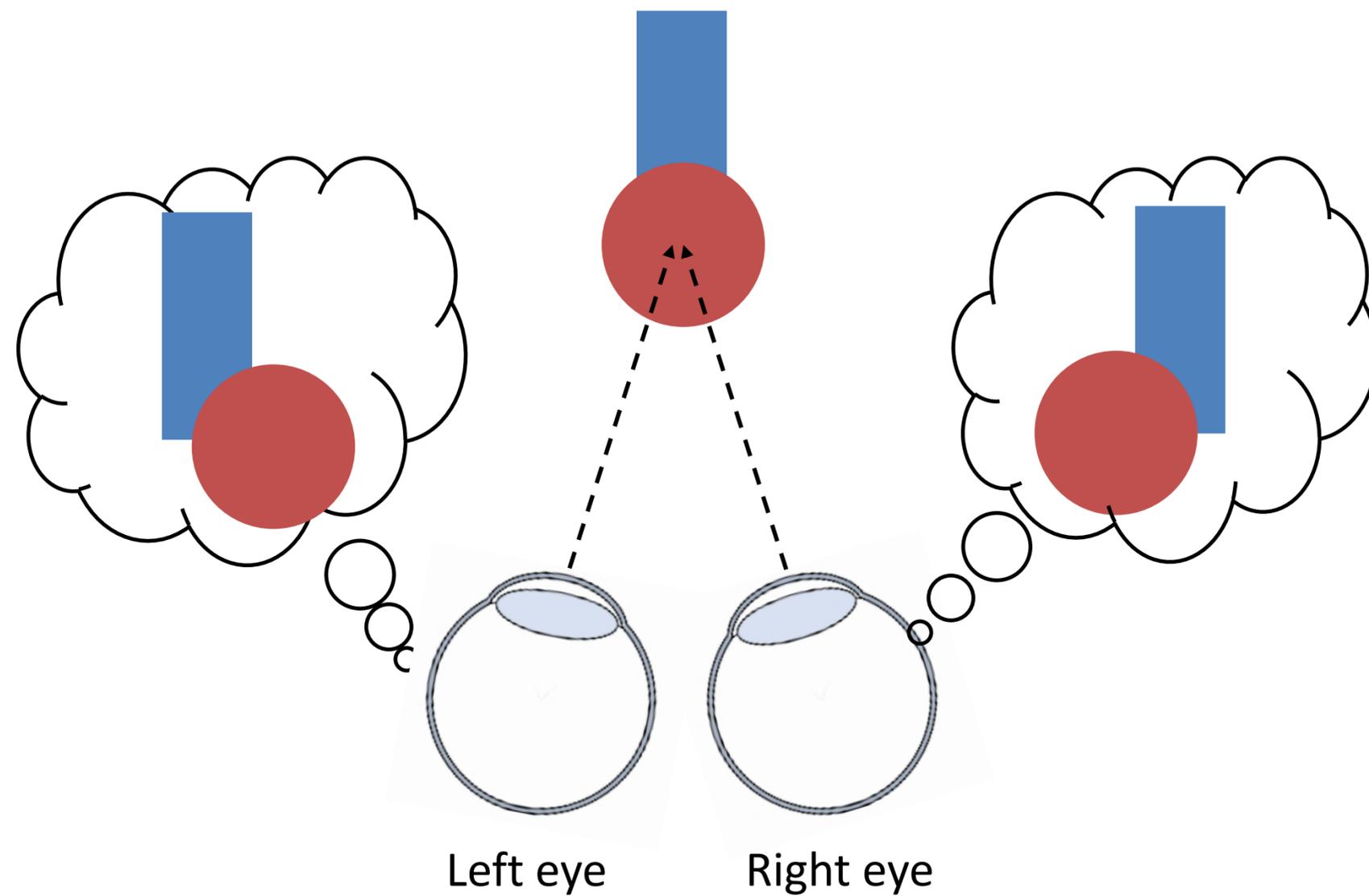


Augmented Reality (AR)



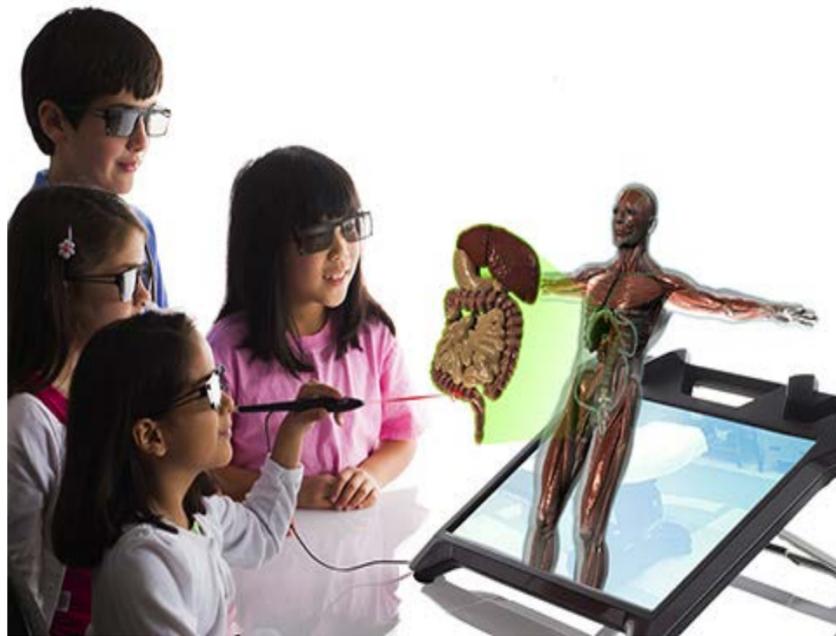
Gamification

Virtual Reality (VR)



Types of VR

Desktop



<https://digital.hbs.edu/platform-digit/submission/zspace-the-ultimate-learning-experience/>

CAVE



HMD

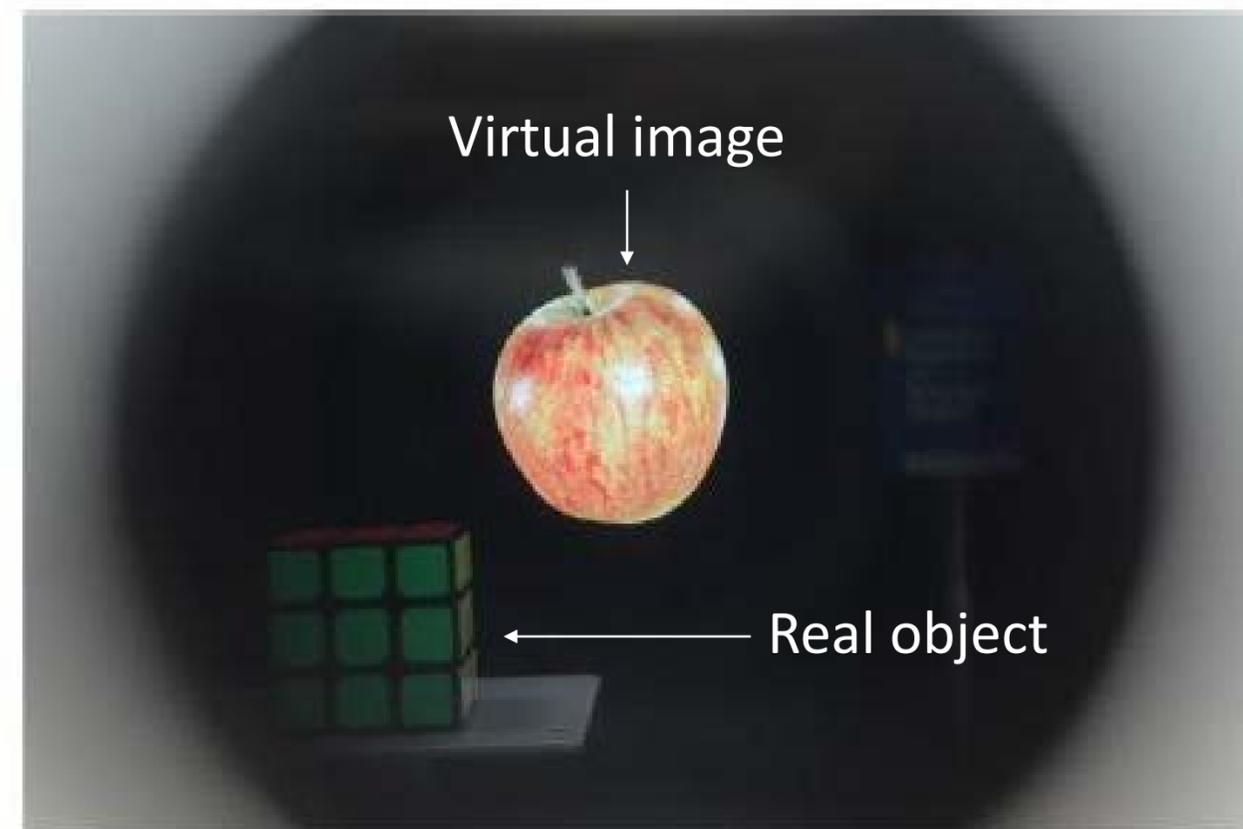
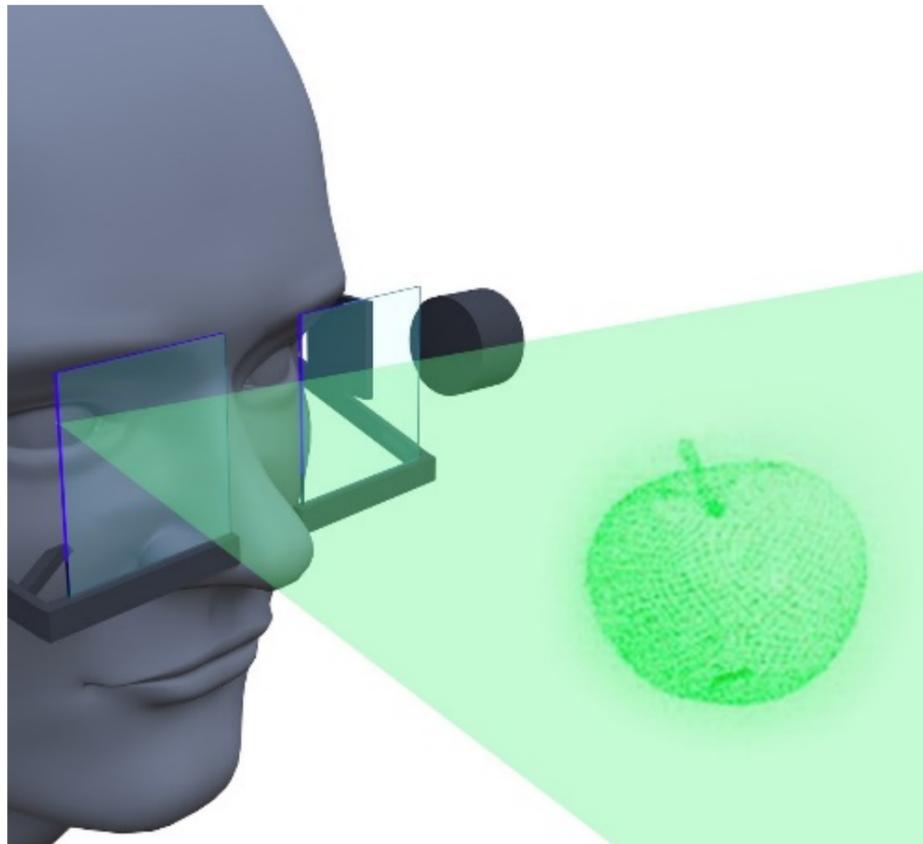


Level of Immersion

Low

High

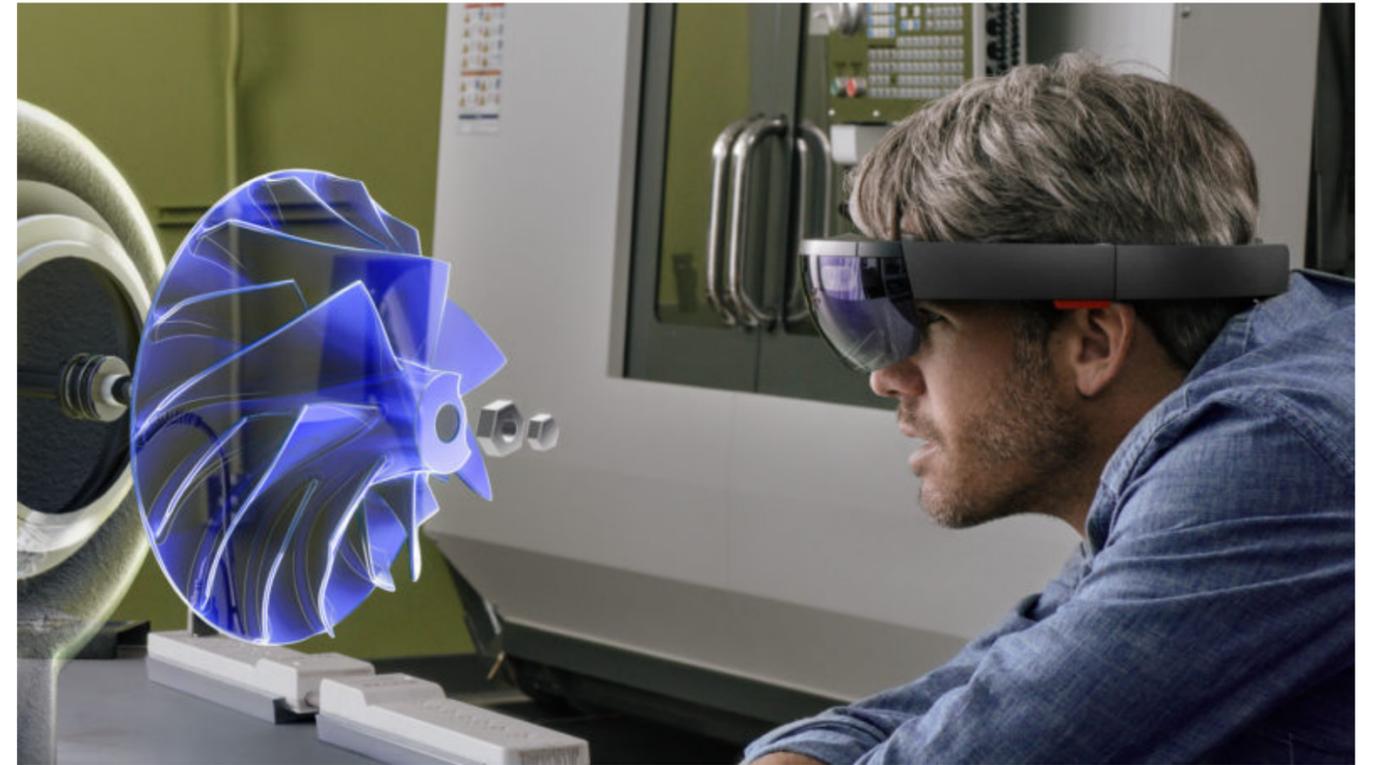
Augmented Reality (AR)



Types of AR

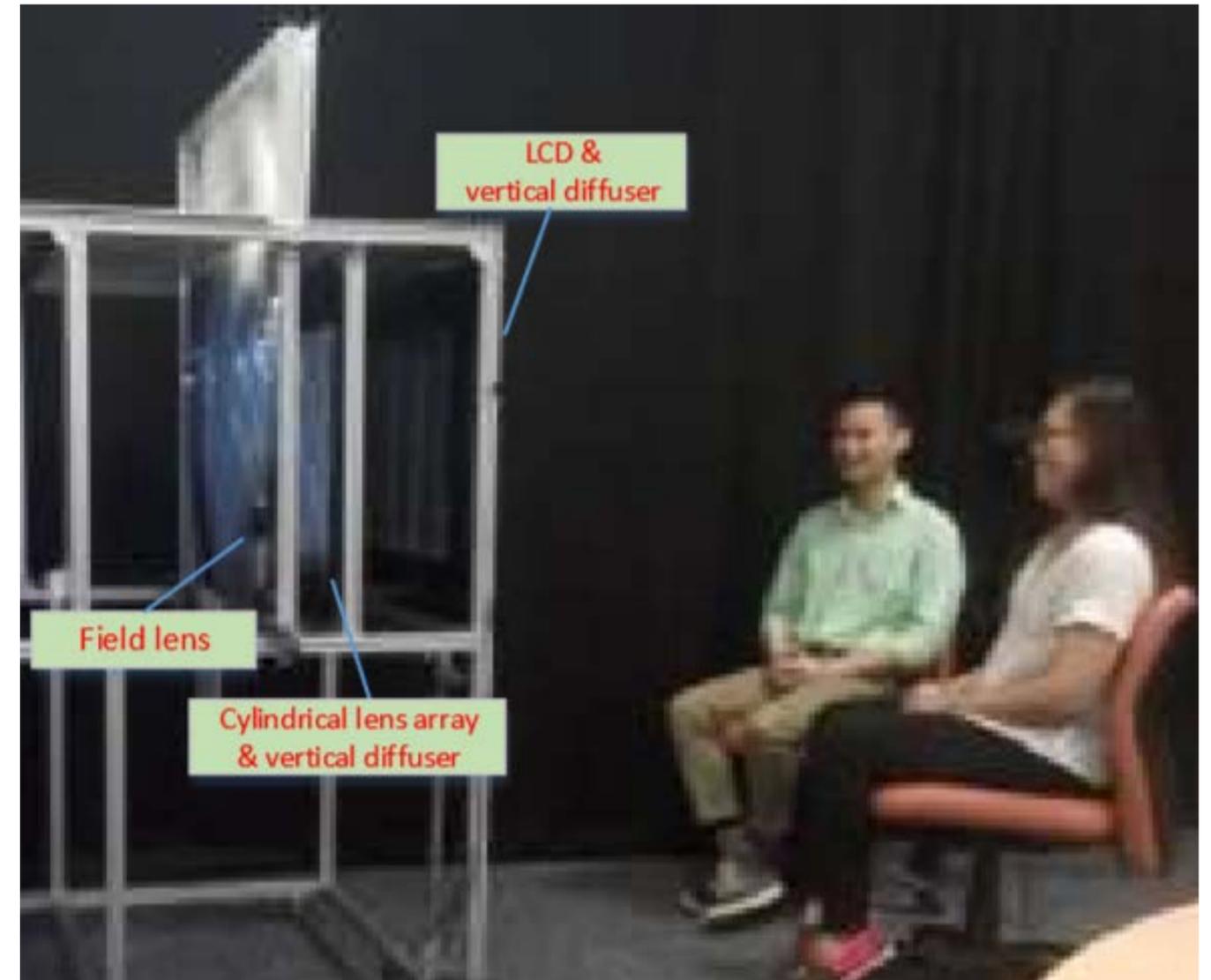


Video-see-through AR



Optical-see-through AR

Glass-free 3D Display



INTRODUCTION

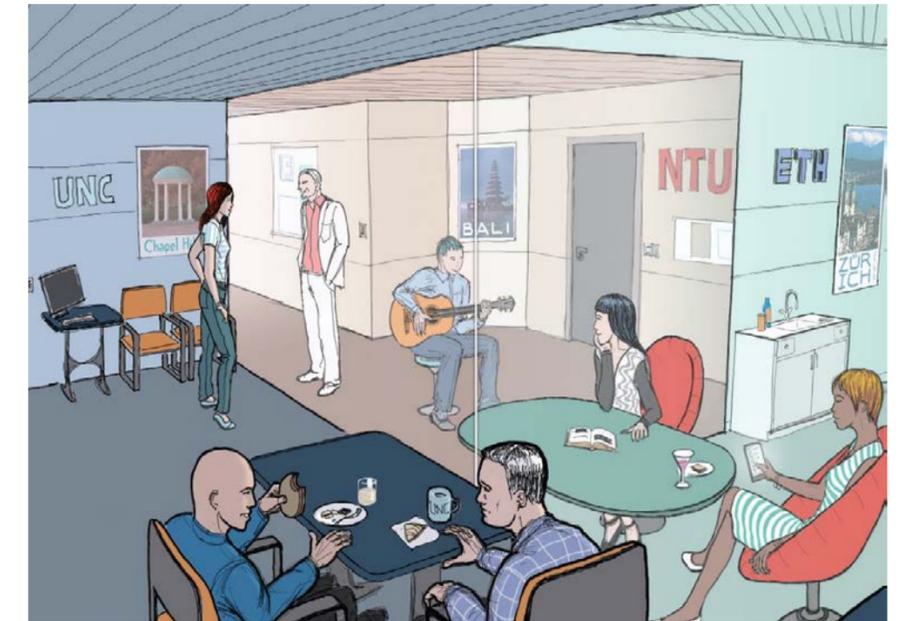
EXAMPLES

COLLABORATION

3D Telepresence (BeingThere Centre, S\$23M)



Channel 8, MediaCorp, 2011

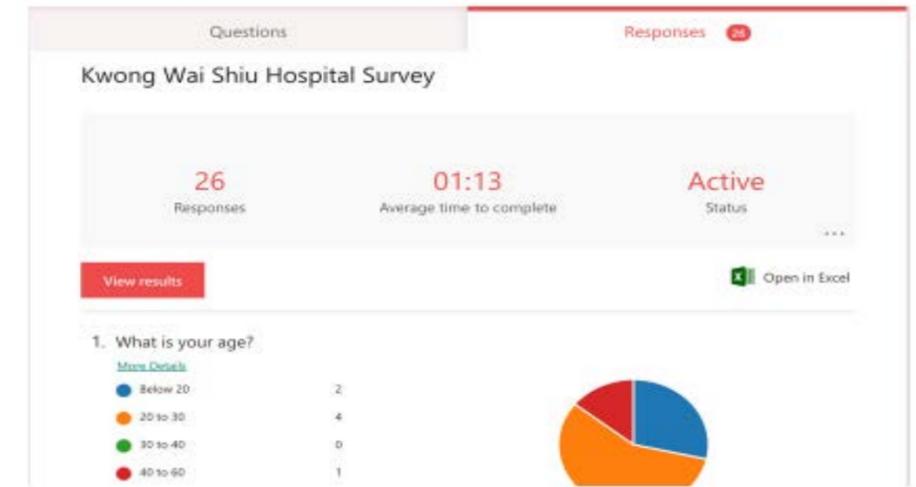
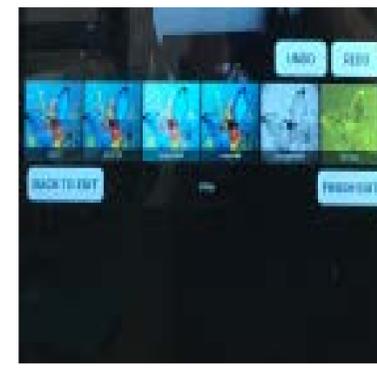
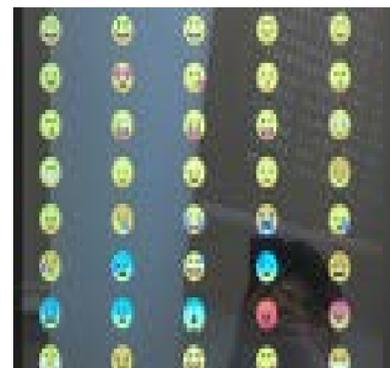
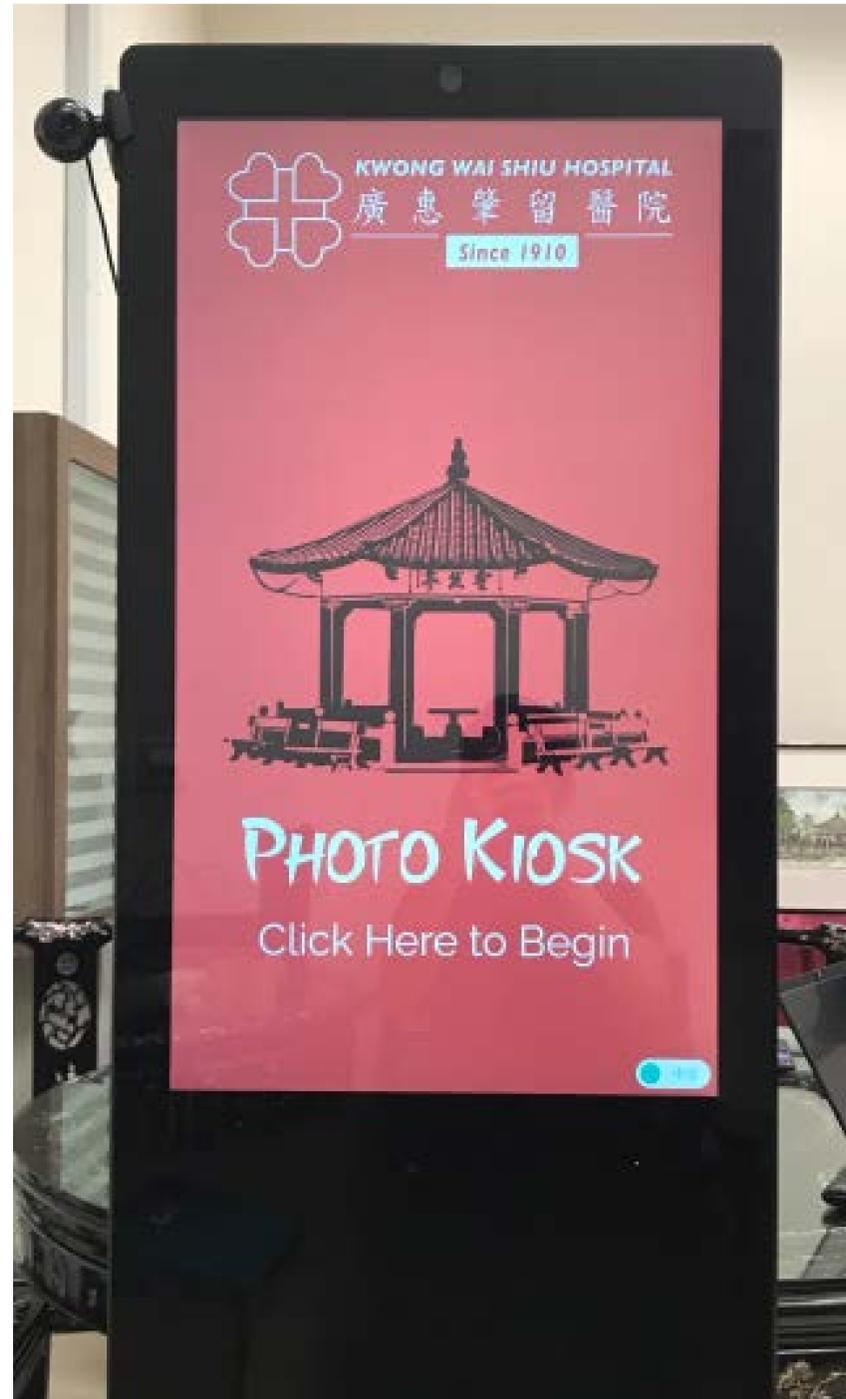


HoloPortation

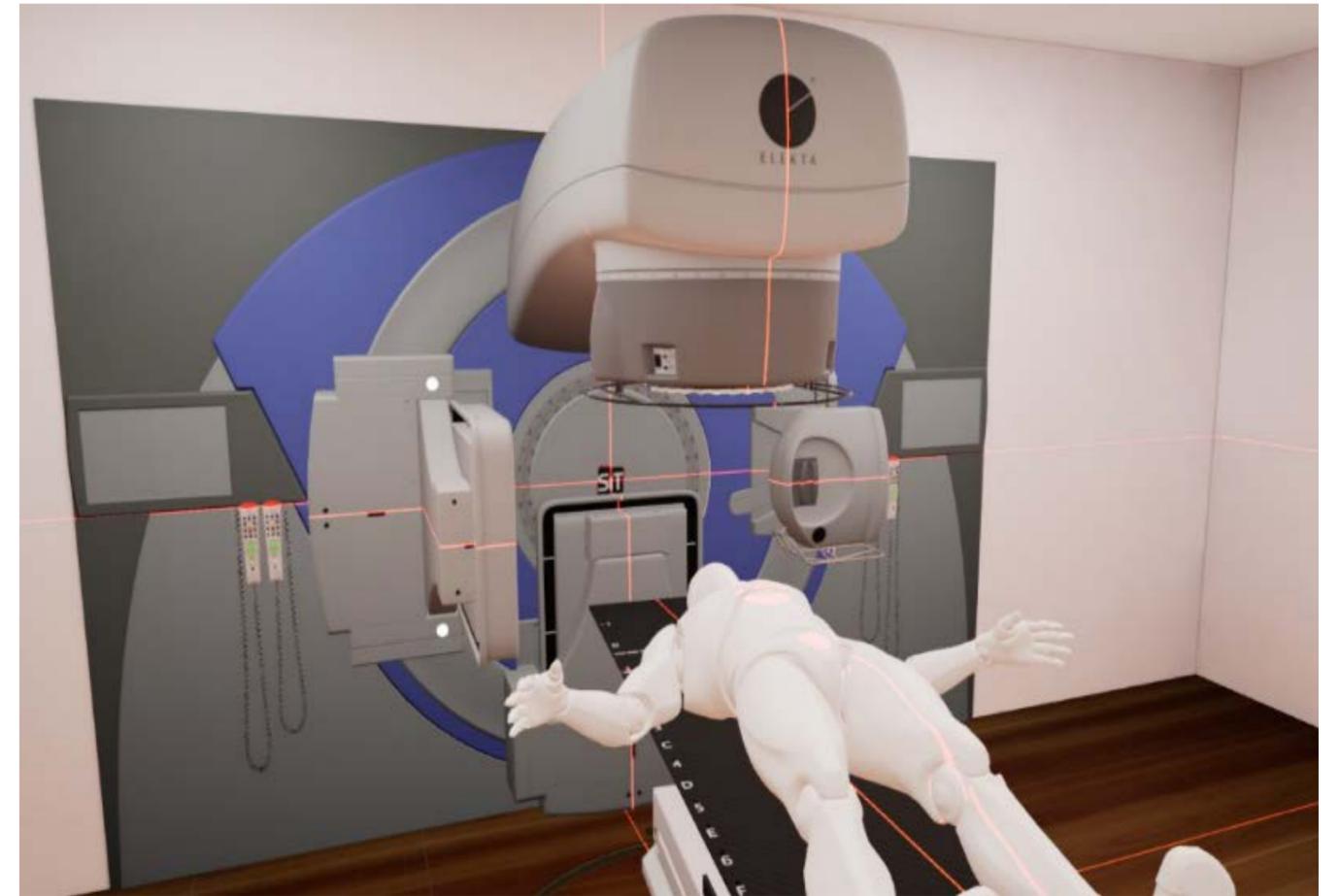
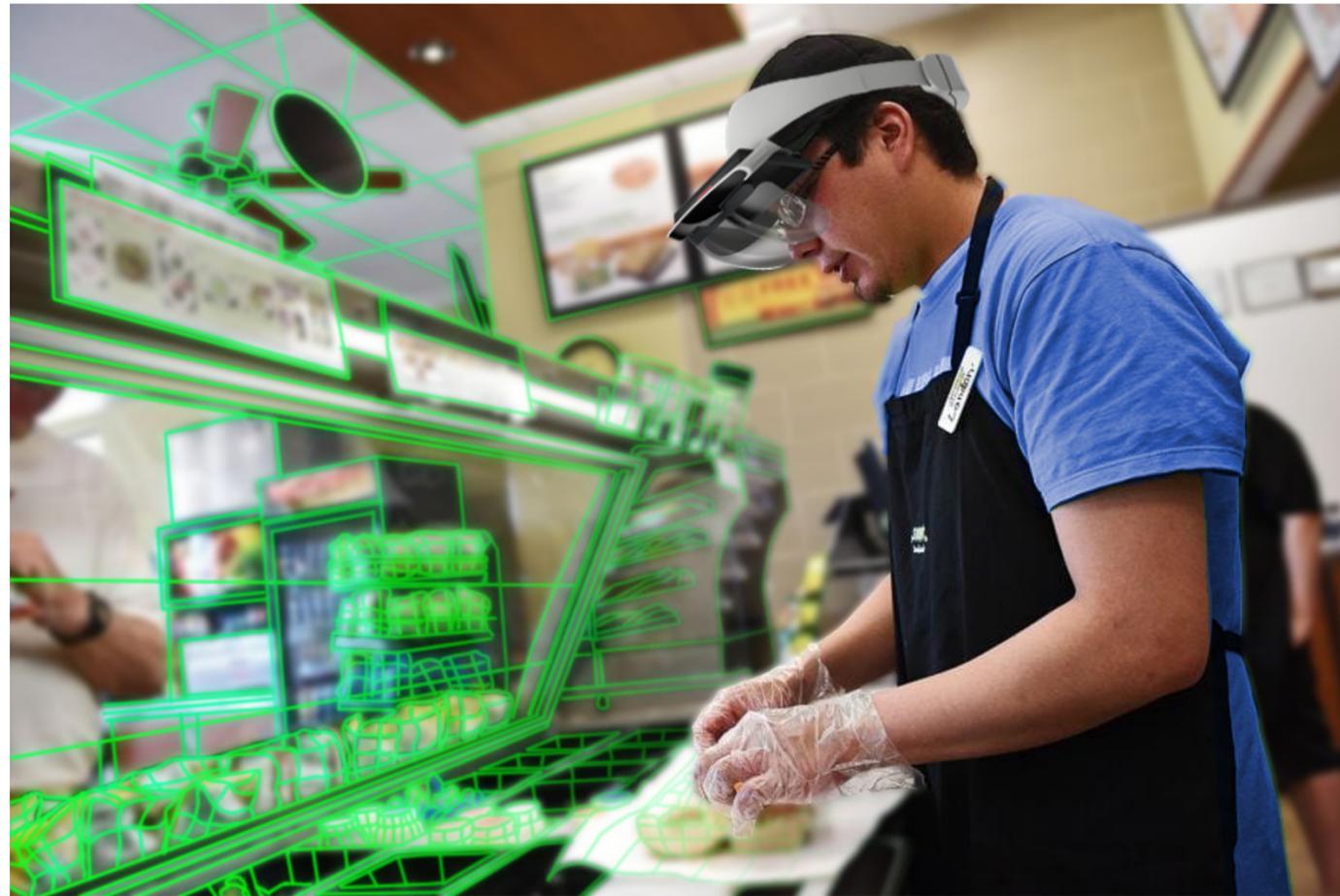


<https://www.youtube.com/watch?v=7d5906cfaM0>

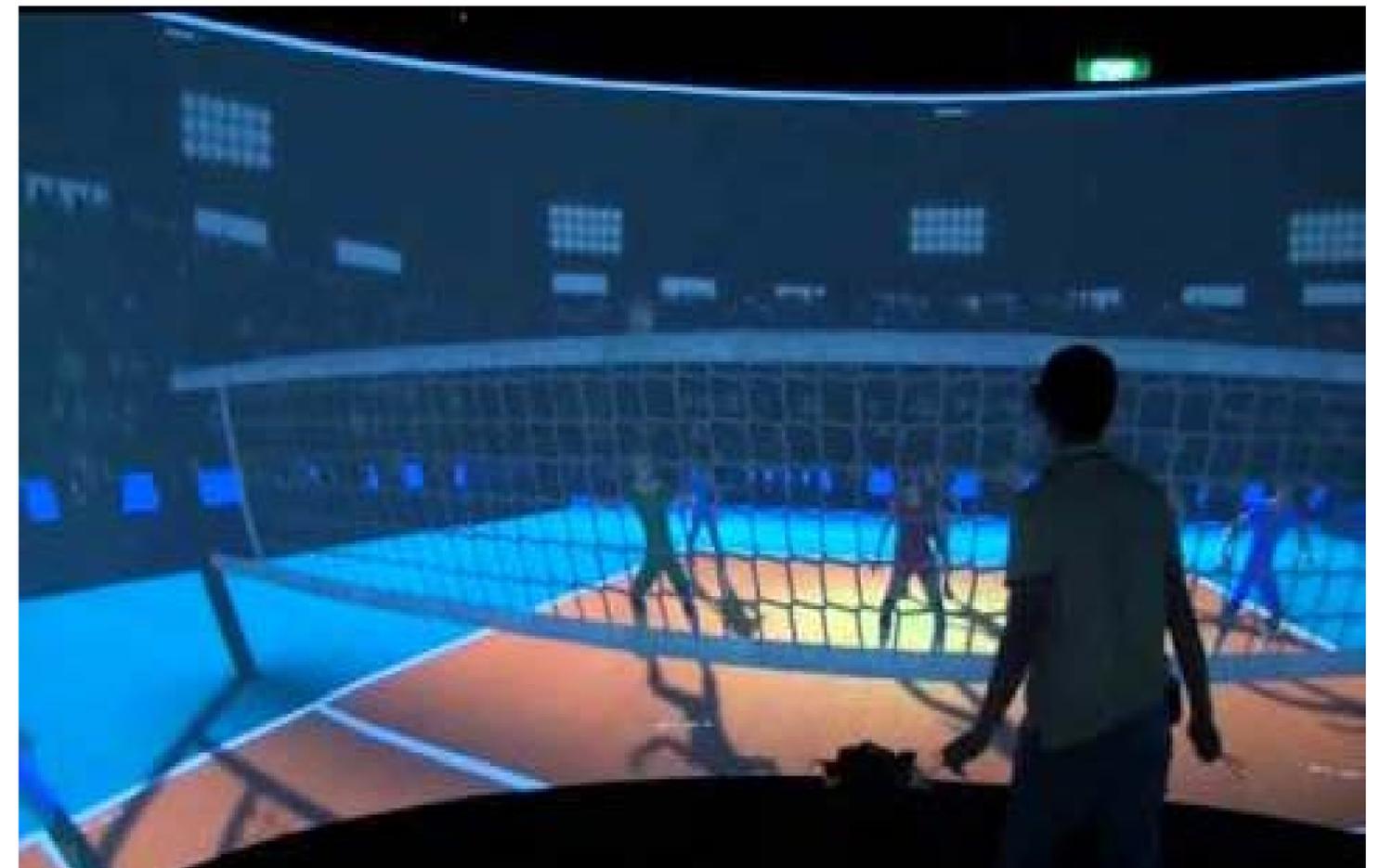
AR Photo Kiosk (ITP Project with KWSH)



AR/VR for Convocational Training



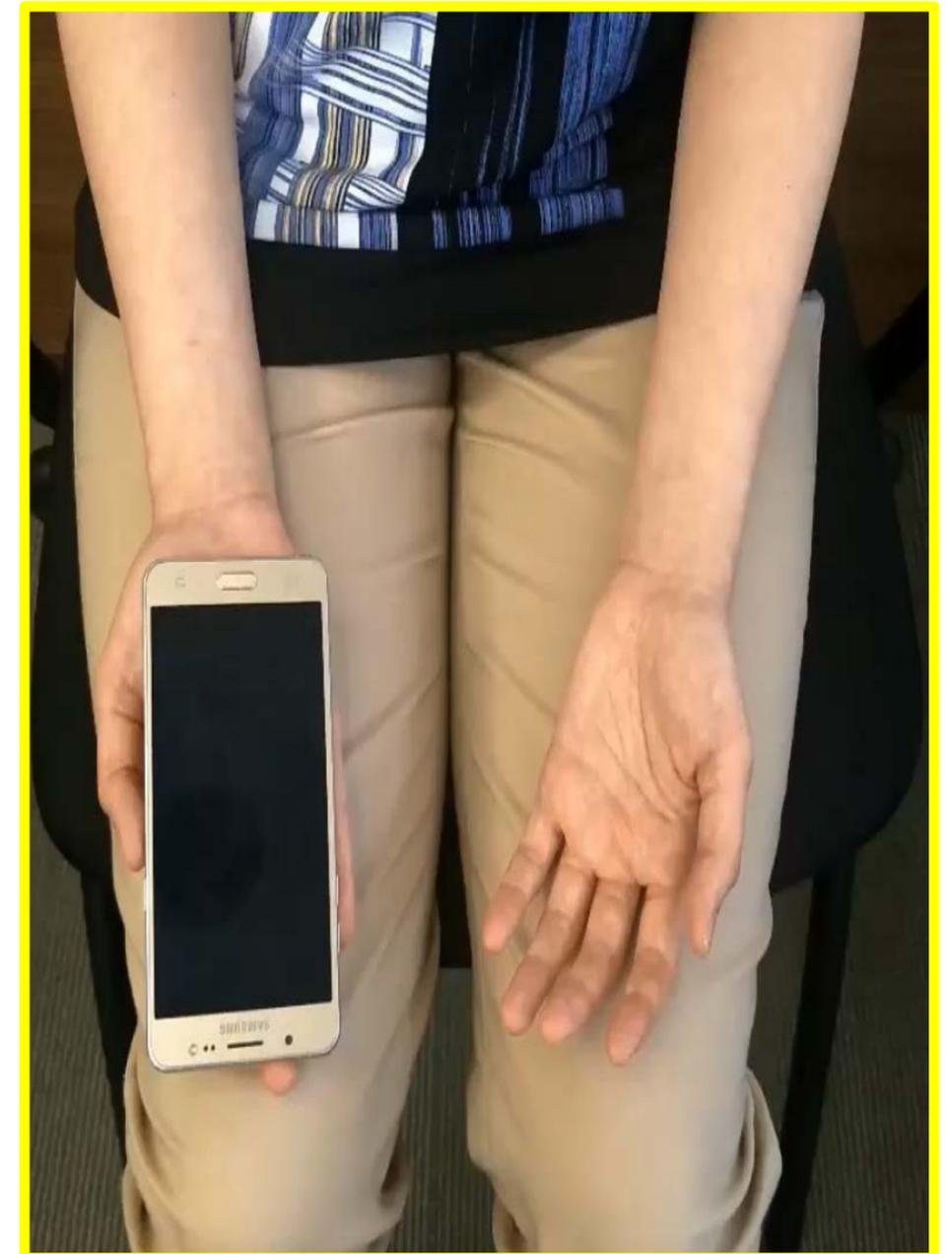
VR for Art and Sport



Gamification for Senior Citizens



Gamification for Medical Rehabilitation



3D Capturing for Online Virtual Museum Tour



Matterport

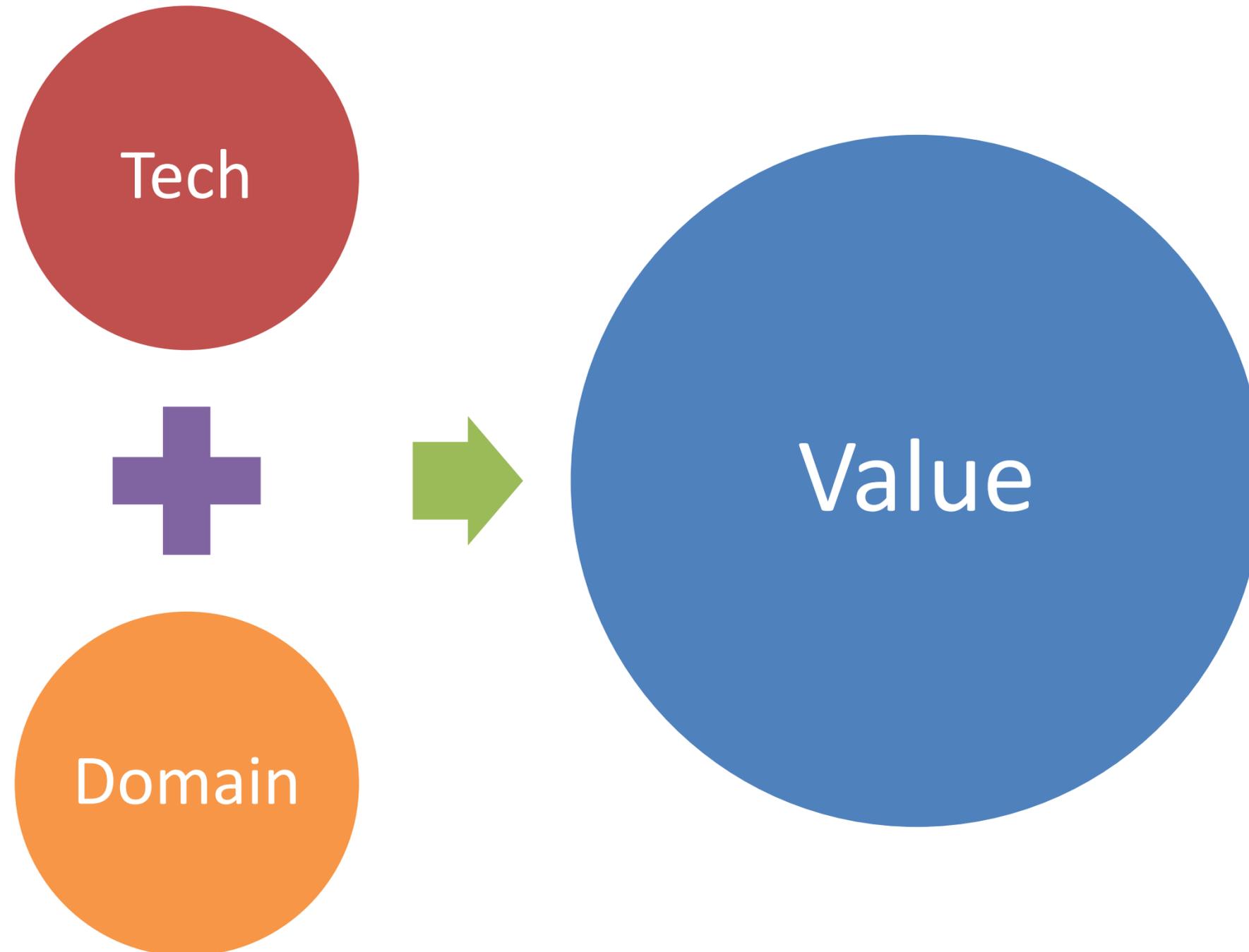


INTRODUCTION

EXAMPLES

COLLABORATION

$$1 + 1 > 2$$



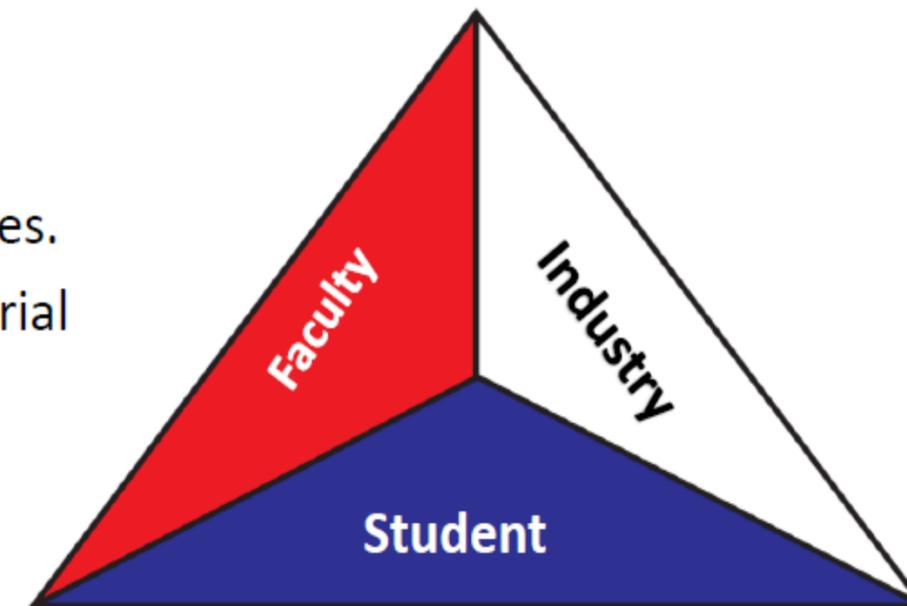
SIT Ignition Grant

SIT

- Provides **early-stage funding** support for SIT's faculty to embark on industry projects involving students and industry partners.
- Proof-Of-Concept (POC) Project co-created with Industry.
- Below \$\$250,000 funding (not paid to industry)
- Fundable items: Manpower, Equipment & Materials and consumables.
- Milestone: Development of prototype/concept/solution with industrial partnership.

Industry Partner

- Provides "Letter of Support" with contributions stated.
- Minimum contribution of 30% of project value in cash and/or in-kind.



Tripartite relationship -
Student, Faculty & industry

SIT IWSP & ITP

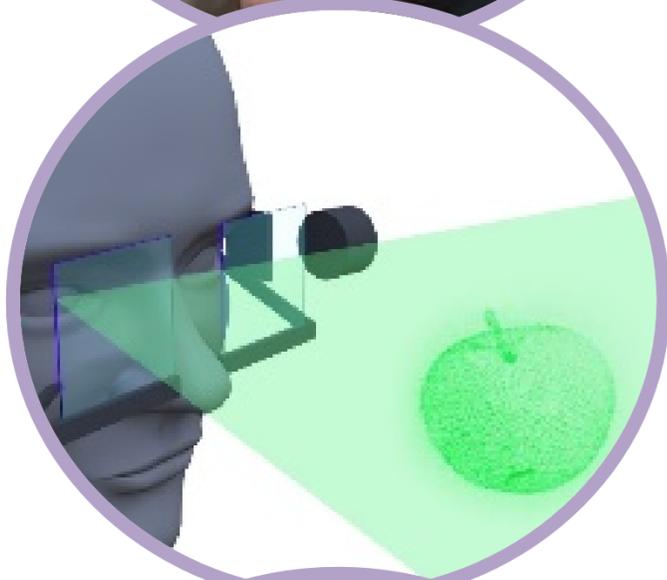


Engage work-ready candidates today.
Secure your talents for tomorrow.

**INTEGRATED
WORK
STUDY
PROGRAMME**



ITP



THANK YOU!

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