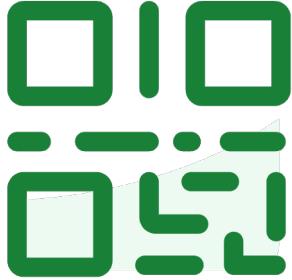


# Introduction

Notes for the SIT-DP module: **Developing Immersive Applications**  
Created by: Chek Tien TAN





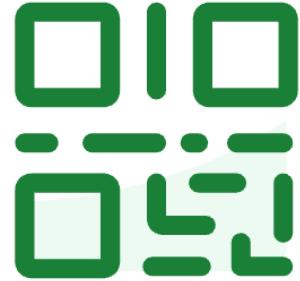
**slido**

Please download and install the  
Slido app on all computers you use



**Join at [slido.com](https://slido.com)  
#dia-week01-intro**

ⓘ Start presenting to display the joining instructions on this slide.



Join at [slido.com](https://slido.com)  
**#dia-week01-intro**

Use your **real full name** (or **SIT Student ID**)  
for ATTENDANCE

The Slido logo consists of the word "slido" in a lowercase, bold, sans-serif font, with a small teal square icon integrated into the letter "i".

Please download and install the  
Slido app on all computers you use



## What is your goal at the end of this module?

- ① Start presenting to display the poll results on this slide.



Please download and install the  
Slido app on all computers you use



**Roughly how many days a week do you use some form of XR? (VR on Quest, AR on mobile, XREAL screen augmentation, etc.)**

- ① Start presenting to display the poll results on this slide.

# The usual mambo jambo... (see GitHub)

- learning outcomes
- assessments
- weekly learning activities
- attendance taking

# What to expect...

- expect changes
- learning content is free and vast
- we're facilitators, not teachers
- is this a “coding” or “design” module?
  - what is unique about coding for VR, AR, etc...



# Changes based on feedback

- still a core module for your industry
- in-person with lecture notes
- more industry!
- revamped TP scope + deadline
- revamped nature of IPA

a lot of students burnt out this semester due to mixture of GAM and other modules that are very project based.

exposure to tools like WebXR means that my constraint of not having an XR-ready device at the ready for testing is mitigated

should be an elective rather than core module

more on-site lectures rather than using online zoom meeting

[what I find useful:]  
interviews with industry people...  
real world case studies



17% response rate...

# Who are we?

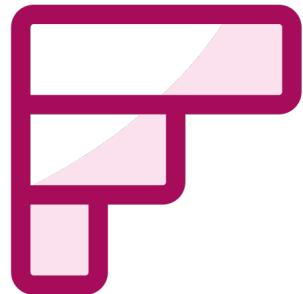
- Chek is a researcher in (Immersive) HCI

Centre for  
**IMMERSIFICATION**

- And forthcoming industry adjuncts ...

The Slido logo consists of the word "slido" in a lowercase, sans-serif font, with each letter having a thin black outline.

Please download and install the  
Slido app on all computers you use



**What do you feel will be most useful for learning in  
this module? Rank from the most useful to least  
useful element.**

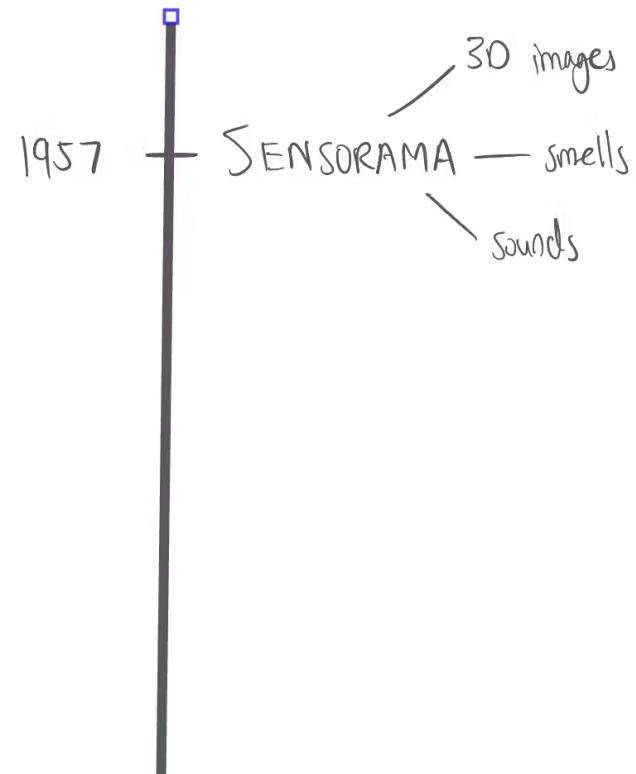
- ① Start presenting to display the poll results on this slide.

# Some suggestions on learning strategy...

- focus on translating design to code, and not focus on code
- make the best of learning a Web stack
  - we have no affiliations with WebXR or BabylonJS
  - it provides accessibility: 230+ students
  - XR does not require VR or AR headsets
- interact with us (and others)
- find the right motivation to learn



# HISTORY XR

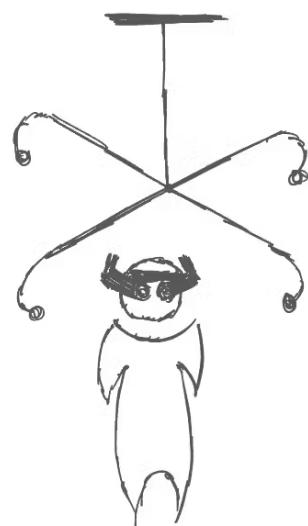


<https://youtu.be/zf61nlyBC3M>

1968

THE SWORD OF DAMOCLES

THE FIRST HMD



<https://youtu.be/AFqXGxKsM3w>

1987 -

EYEPHONE + DATA GLOVE

"Virtual Reality" coined  
by Jaron Lanier, VPL Research



<https://youtu.be/wSomPwfH5eQ>

1991 -

VIRTUALITY 1000  
by the Virtual Group

stereoscopic 3D

multiplayer

1993 -

SEGA VR  
1st goggles-styled

head tracking

stereo sound  
LCD screen

1994 -

SEGA VR-1  
Arcade in  
Segaworld

3D polygon graphics

motion simulator



<https://youtu.be/ojutHp6RnPU>

1995

NINTENDO VIRTUAL BOY  
1st portable stereoscopic 3D  
game console



<https://youtu.be/17euo2DzBZI>



<https://www.nintendo.com>

2012 - Oculus RIFT DK1  
by Palmer Luckey  
/ \  
lightweight good stereo 3D



<https://youtu.be/DhcOMOWRMnA>

The Slido logo, which consists of the word "slido" in a lowercase, bold, sans-serif font.

Please download and install the  
Slido app on all computers you use



## Guess the price of the original Oculus DK1?

- ⓘ Start presenting to display the poll results on this slide.

2014 - GOOGLE CARDBOARD  
(and FB purchased Oculus)

/  
cheap

\  
use existing  
smartphones



<https://youtu.be/SxAj2lyX4oU>

2015 - SAMSUNG GEAR VR

2016 -  
HTC VIVE  
OCULUS RIFT  
PLAYSTATION VR  
:  
:



<https://youtu.be/i1r76omNeI8>

WHAT R?



VR



AR



MR

XR?

The Slido logo consists of the word "slido" in a lowercase, bold, sans-serif font, with a small teal square icon integrated into the letter "i".

Please download and install the  
Slido app on all computers you use



**Describe briefly, what is the  
difference between AR and MR?**

- ① Start presenting to display the poll results on this slide.



extended reality definition



All

Images

News

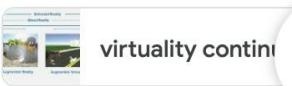
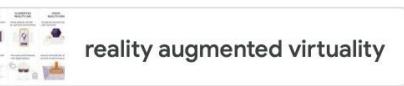
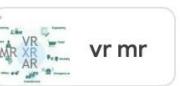
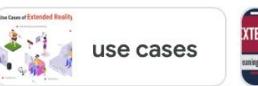
Shopping

Books

More

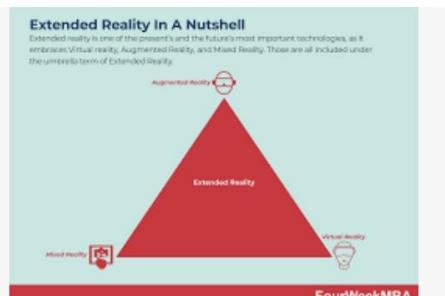
Tools

Collections SafeSearch ▾



envision-is.com

envision-is.com/wp-content/uploads/202...



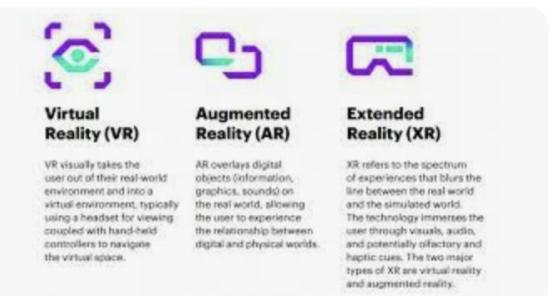
FourWeekMBA

Extended Reality: Definition, Use Cases ...



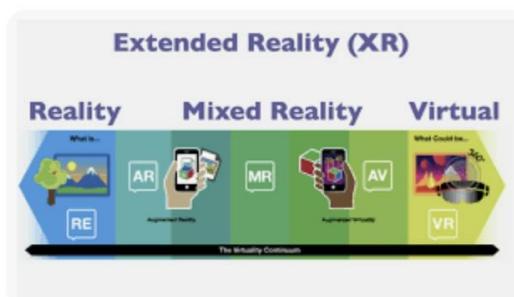
SaM Solutions

XR (Extended Reality) and Its Use Cases ...



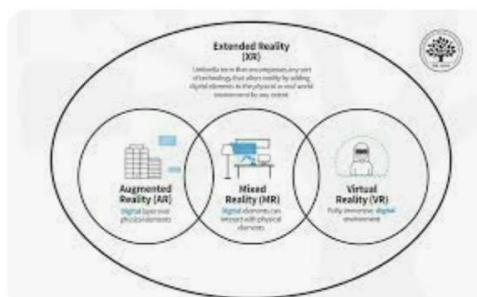
Accenture

The wonders of Extended Reality ...



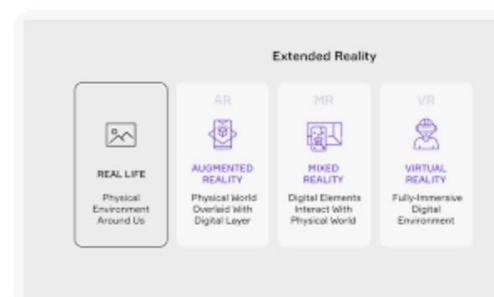
XR PEDAGOGY

XR PEDAGOGY - What is XR?



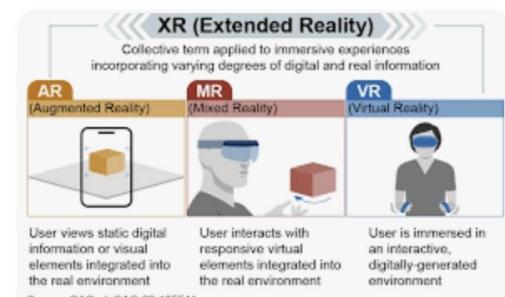
Interaction Design Foundation

What is Extended Reality (XR)? | IxDF



Sensorium

What Is Extended Reality - XR Explained



Government Accountability Office

Extended Reality Technologies ...

# Immersive Media

[About](#)    [Unlocking Possibilities](#)    [Augmenting Training Outcomes](#)    [Putting the Fun in Education](#)    [Visualising Ideas and Realising Concepts](#)    [Bringing Stories to Life](#)    [Featured Immersive Media companies](#)



Share:

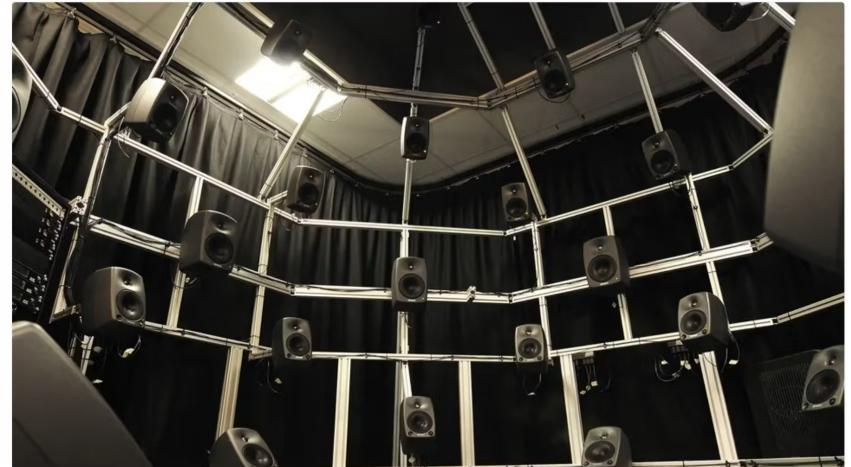


# So what is XR again?

- means to communicate
- convergence of consumer devices
- BUT there is much more to immersive experiences...

## New Technique Could Enhance Films for Visually Impaired

News Published: November 2, 2021 | [Original story from the University of York](#)



The Immersive Audio Dome at the University of York Audiolab is key to developing the 3D audio strategy. Credit: University of York/Department of Theatre, Film, Television and Interactive Media

# CENTRE FOR IMMERSIFICATION

[home](#)  
[jobs](#)  
[projects](#)  
[about](#)  
[contact](#)  
[team](#)



We are hiring

A proud entity of the  
Singapore Institute of  
Technology

VR



# Immersification – a fresh dimension to learning design

Many online courses can benefit from immersive technologies to enhance student learning experiences. Here Chek Tien Tan and May Lim outline their innovative method for ensuring that the technology chosen supports the desired learning outcomes

[Edtech](#)[Course design and delivery](#)[Asia](#)[Feature article](#)**Chek Tien Tan, May Lim**

Singapore Institute of Technology

🕒 23 Dec 2020



0

[Top of page](#)[Main text](#)[Transcript](#)[Additional Links](#)[More on this topic](#)

Help us improve by sharing



Different requirements  $\Rightarrow$  different implementations

