Immersive Learning and Virtual Reality @UWTSD

Chris Rees

Executive Head of Digital Creativity and Learning

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Where Higher Education Began in Wales

www.uwtsd.ac.uk

The University

22,664
Students on UK campuses across the UWTSD Group

6
UK Based Campuses

1375
Members of staff

2021 Digital Strategy
Digital Connectivity
Digital Productivity
Digital Learning
Digital Inclusion
Digital Capabilities
Digital Innovation

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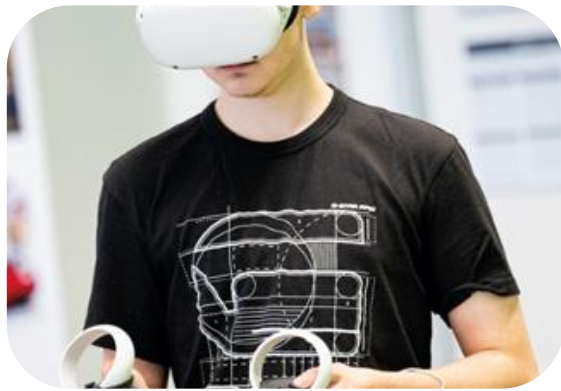Y Drindod Dewi Sant
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Immersive Learning

Virtual Reality

What started our current approach?

Projects

Students

ATIC

CWIC

Avanade / MADE

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Three main focuses........

Simulating Environments

Providing Virtual Experiences

Gamification

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Immersive Learning - VR Approach

100 + Oculus Devices
Management tool – ArborXR

Current Team – 1 x VR/AR Developer
                          2 x VFX Developers

Service Desk Support to ensure correct technical management

Training available general use (Skills Advisors) and pedagogical approaches (Digital Learning Team)

Engagement sessions on new technologies

Procurement of Equipment	Management
Centralised Approach	
Content Creation	Training
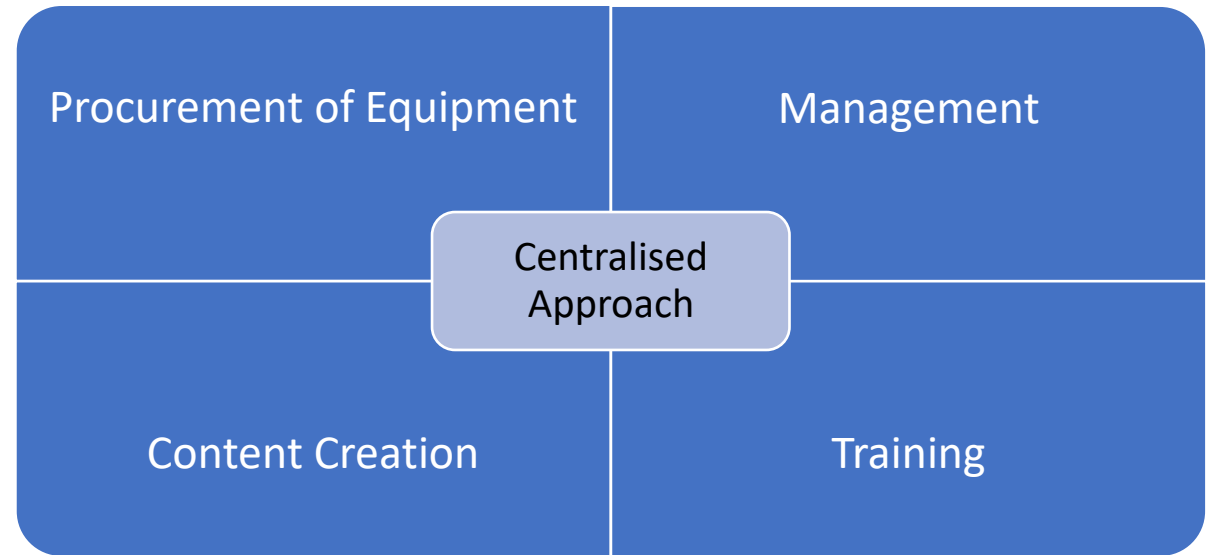
Immersive Learning - Rooms

Two Immersive Rooms circa £1.2m

16m x 2.7m LED Walls across 3 walls

Igloo immersive software able to recreate VR experience with a collaborative approach to Teaching and Learning

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Our Strategic Approach

Phase 1 – Engagement and Review

Engagement Sessions with Staff

Staff Demonstrations

Loaning/Use of Equipment and Rooms

Providing expertise for trial use

Providing Custom content

Providing list of "Off the shelf Content"

Evaluation of use

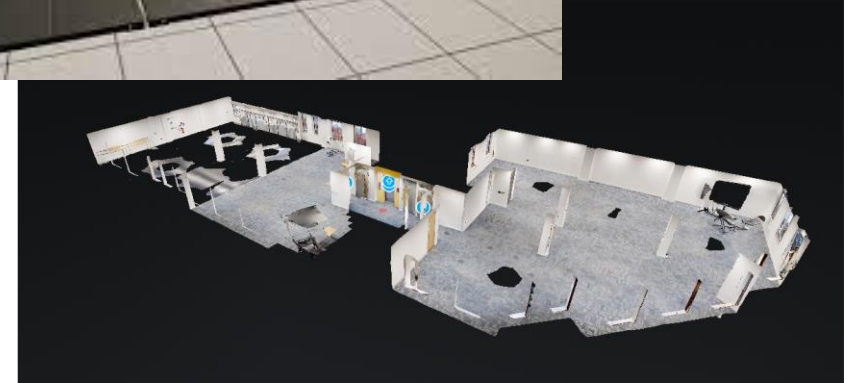**Phase 2 – Use development and Academic Attainment Study**

Evaluation Reviews

Development of Pedagogical content and Learning Design Packages

Academic Attainment Study with Academic office – "Has the use of VR/Immersive Learning had an effect on attainment?"

Content Creation

Ideation and Planning

- Engagement with Academic Staff
- Content Goals
- Target Audience
- Market Research – Is there anything "off the shelf"
- Content Brief

Creation

- Research and Storyboard
- Choose tool – Unreal Engine / VFX /Animation
- Create Drafts
- Produce Proof of Concept

Finalisation and Optimisation

- Student testing
- Optimising performance
- Evaluating against project outcomes
- **Evaluating against learning outcomes**

Further development – Learning Package

Current Immersive Learning Projects

- Virtual Reality Gym
- Engineering and Manufacturing
- Policing – Virtual Crime Scenes and Simulated Environments
- Health and Safety
- Virtual Art Galleries
- Sustainability
- Virtual tours of Campus – including Neurodivergent
- Fears
- Architectural Walk throughs

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Neurodivergent learners

Some of our Neurodivergent learning have expressed concerns about using VR Headsets but are happier using the immersive room.

Projects –

Campus tours for Neurodivergent learners

Pre-trips for younger learners

Student Involvement

Student Testing

Student Project use

Possible Content Creation

Future Developments

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