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Transformative Hospitality Education through Tech Abilities:

A blueprint for creating immersive (learning) experiences using VR/AR

Erasmus+   T DUBLIN OLLSCOIL TEICNEOLAÍOCHTA BHAILE ÁTHA CLIATH TECHNOLOGICAL UNIVERSITY DUBLIN   Haaga-Helia   HOTELSCHOOL THE HAGUE Hospitality Business School   UIB Universitat de les Illes Balears

LTTA HELSINKI
November 27th-29th

Learning outcomes

▶ Be able to plan and create a prototype (within WarpVR, Fectar & Matterport) as a team using the design-thinking template and necessary equipment (hardware and software)

▶ Understand the benefits and drawbacks of each medium understand how to think through the design of an immersive learning experience

▶ Learn how to develop rapid AR/VR prototypes for hospitality education (?) in a quick and dirty way

▶ Gain an overview of how to go about integrating AR/VR prototypes in your courses

Practical questions

- Wi-Fi – HaagaHeliaPublic – No password
- Moving around in campus
- Workshop hours

Helsinki event schedule

- **DAY 1 (Mon 27.11.2023)**
  9 - 10 XR opportunities in education - Jouko
  10 - 12 Army of examples - participants present their pre-assignments
  12 - 13 Lunch
  13 - 14 Experience session: Presentation of four prototypes - Che
  14 - 17 Prototype Workshop - Fectar in detail - Che

  DAY 2 (Tue 28.11.2023)
  9 - 12 Prototype Workshop - WarpVR in detail - Daniel
  12 - 13 Lunch
  13 – 15:30 Prototype Workshop - Matterport in detail - David
  15:30 – 16 Pasi

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  DAY 3 (Wed 29.11.2023)
  9 - 12 Polish one of your prototypes workshop - Che, Daniel, David & Jouko
  12 - 13 Lunch
  13 - 14 Presentation of participants' prototypes
  14 - 15 What happens after Helsinki. 7 credit course details.

		Monday Nov 27th	Tuesday Nov 28th	Wednesday 29th
	Sun Nov 26th	Haaga-Helia, Campus	Haaga-Helia Campus	Haaga-Helia Campus
Morning 9-12		**9:00** XR opportunities in education – Jouko, Room Osaamo **10:00** Army of examples - participants present their pre-assignments	**9:00** Prototype Workshop - WarpVR in detail - Daniel, Room Osaamo	**9:00** Polish one of your prototypes workshop Che, Daniel, David & Jouko, Classroom G-aisle
Lunch 12-13		Caffeli or Central Park, Hotel Haaga	Caffeli or Central Park, Hotel Haaga	Caffeli or Central Park, Hotel Haaga
Afternoon 13 ->		**13:00** Experience session: Presentation of four prototypes – Che Room Osaamo **14:00-17:00** Prototype Workshop - Fectar in detail - Che	**13:00-16:00** Prototype Workshop - Matterport in detail – David Room Osaamo 15:30 Pasi Tuominen thesis Room Noschis 3rd Floor	**13:00** Presentation of participants' prototypes, Classroom G-aisle **14:00-15:00** What happens after Helsinki, 7 credit course details
Dinner		Outside	Central Park, Hotel Haaga or outside	(Central Park, Hotel Haaga or outside)
Other	Arrival of participants	Visit to Oodi Central Library		Departure of participants

Haaga-Helia in videos Campuses and Labs

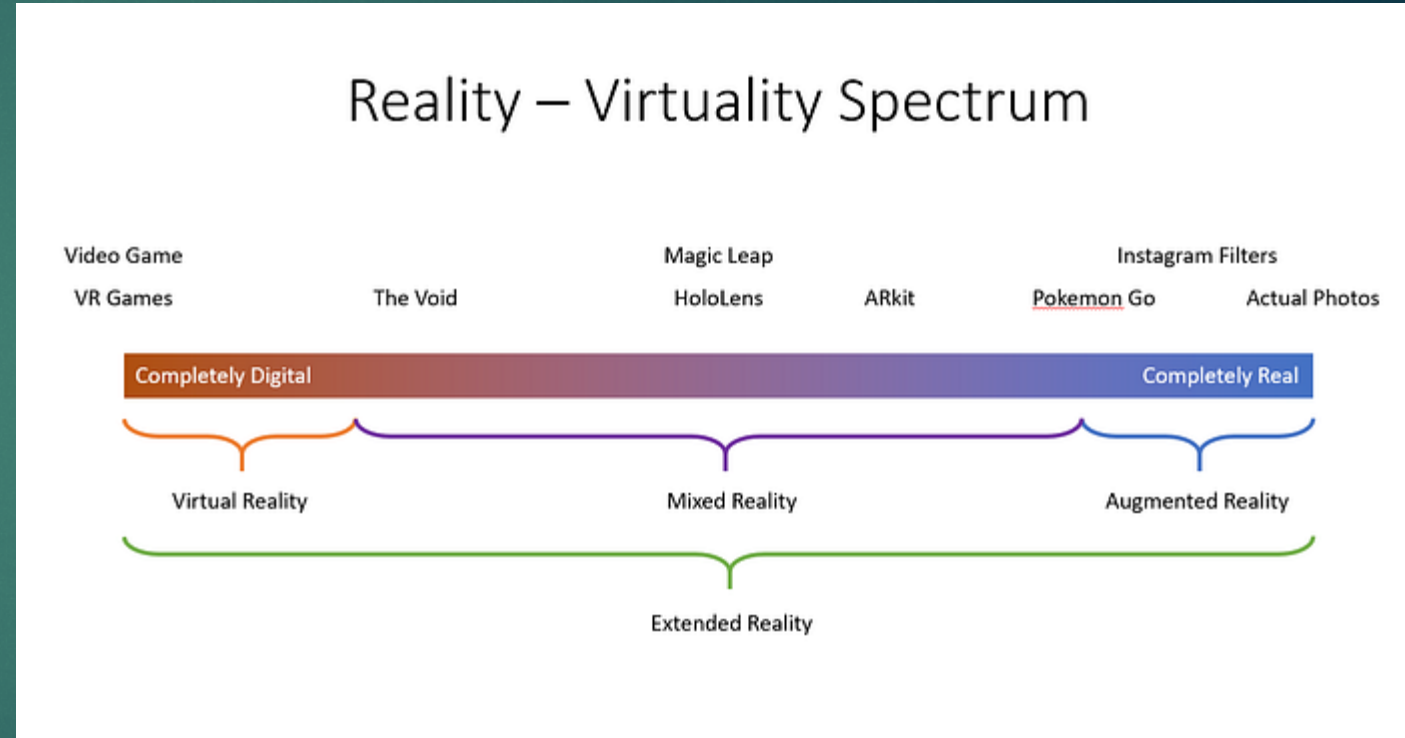https://www.youtube.com/watch?v=eF6VP2kr3xg&list=PLv2-rjpkcTb7qiI2wAnhswCHmWSc-yxuC

Tutki, kehitä ja opi innovatiivisissa HH-labeissa | Explore, develop and learn in innovative HH Labs - YouTube

Student presentations

- ▶ An army of examples how to use XR in teaching.

XR Overview

- Extended Reality (XR) is an umbrella term that encompasses a spectrum of immersive technologies, including Augmented Reality (AR), Virtual Reality (VR), and Mixed Reality (MR).
- These technologies blend the physical and digital worlds, creating interactive and immersive experiences.

https://medium.com/@dmsteele89/the-present-state-of-the-virtuality-reality-continuum-96ed4e94d32e

Virtual Reality (VR) Examples

▶ Virtual field trips

▶ Anatomy and medical training

▶ Historical reconstructions

▶ Soft skill training

Augmented Reality (AR) Examples

- ▶ Interactive text books
- ▶ Geography and maps
- ▶ Historical augmentation

XR Applications in Education

▶ Enhanced Learning Experiences

▶ Engagement and Motivation

▶ Accessibility and Inclusivity

▶ Global Collaboration

▶ Practical Training and Skill Development

▶ Real-world Application

Empowering teachers to create their own XR materials

▶ Customization for curriculum alignment

▶ Engagement and relevance

▶ Subject-specific content

▶ Promoting creativity and innovation

▶ Incorporation of real-world context

▶ Continuous improvement

Challenges and considerations

▶ Technical skill requirements

▶ Time-consuming process

▶ Resource constraints

▶ Lack of standardization

▶ Accessibility issues

▶ Integration with curriculum

Future Trends in XR and Education

- 5G Technology
- Immersive learning platforms
- Haptic feedback and sensory integration
- AI and machine learning integration
- Spatial computing
- WebXR
- Extended Collaboration Tools
- Eye-Tracking Technology
- AR Cloud
- Gesture recognition

Welcome, tervetuloa!