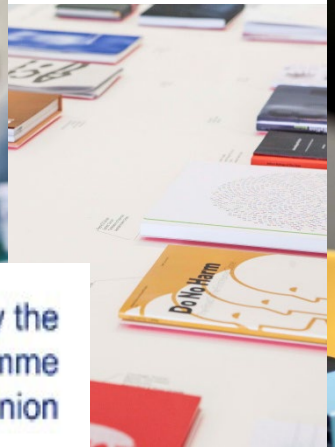
Immersive VR and AR technology – in Art, Design and Media education

Institute of Art, Design + Technology Dún Laoghaire

Thursday 10th October 2023 - IADT



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Some Case Studies from ACCELERATE

Institute of Art, Design + Technology Dún Laoghaire

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VR, AR and XR...

- VR: **Virtual Reality (VR):** The computer-generated simulation of a three-dimensional image or environment that can be interacted with in a seemingly real or physical way by a person using special electronic equipment, such as a helmet with a screen inside or gloves fitted with sensors.

- From: AR/VR Research Report, Institute of Art Design and Technology, Robert Griffin, Iva Bedzula Prebeg, Danijela Blazevic, 2020

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AR...

- **(AR) Augmented Reality** is an enhanced, interactive version of a real-world environment achieved through digital visual elements, sounds, and other sensory stimuli via technology. Augmented reality involves overlaying visual, auditory, or other sensory information onto the real world to enhance one's experience.

- From: https://dynamics.microsoft.com/en-us/mixed-reality/guides/what-is-augmented-reality-ar/#:~:text=Augmented%20reality%20is%20an%20enhanced,sensory%20stimuli%20via%20holographic%20technology

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XR...

- **XR - Extended reality** is a catch-all to refer to augmented reality (AR) and virtual reality (VR). Sometimes the acronym 'XR' is used in place. The technology is intended to combine or mirror the physical world with a "digital twin world" that is able to interact with each other.[1]
- The fields of virtual reality and augmented reality are rapidly growing and being applied in a wide range of ways, entertainment, marketing, real estate, training, and remote work.[2]

- https://en.wikipedia.org/wiki/Extended_reality

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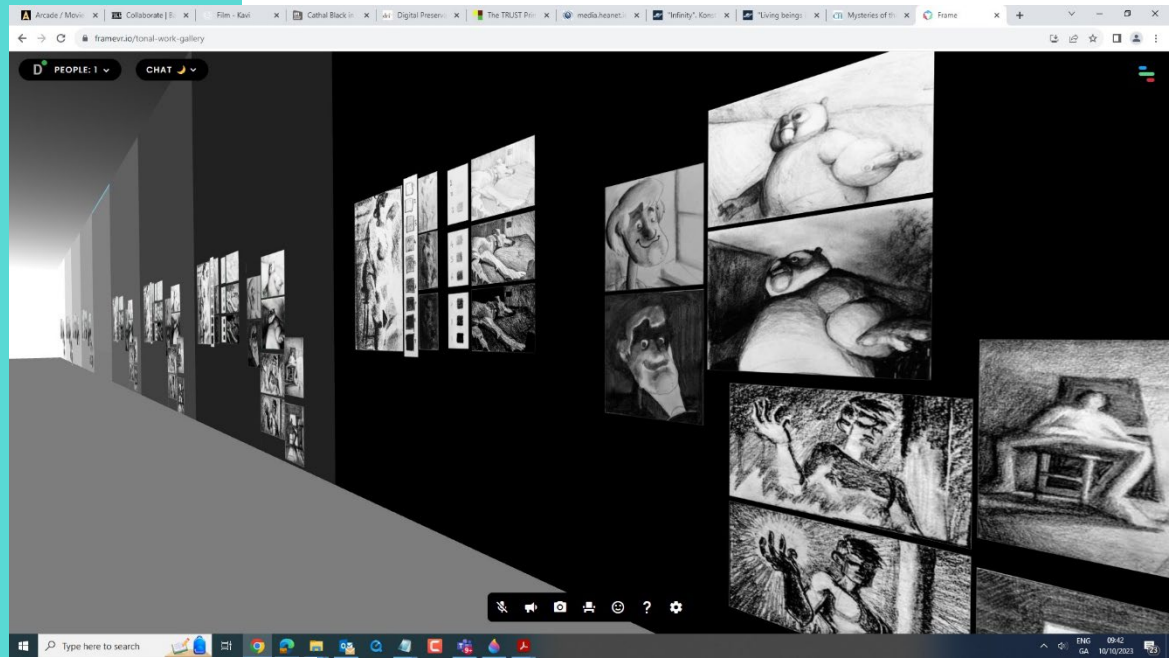
JURASSIC PARK

Immersive Potentials...

Being in the scene, rather than LOOKING AT the scene…

- The Tone Zone
- https://framevr.io/tonal-work-gallery



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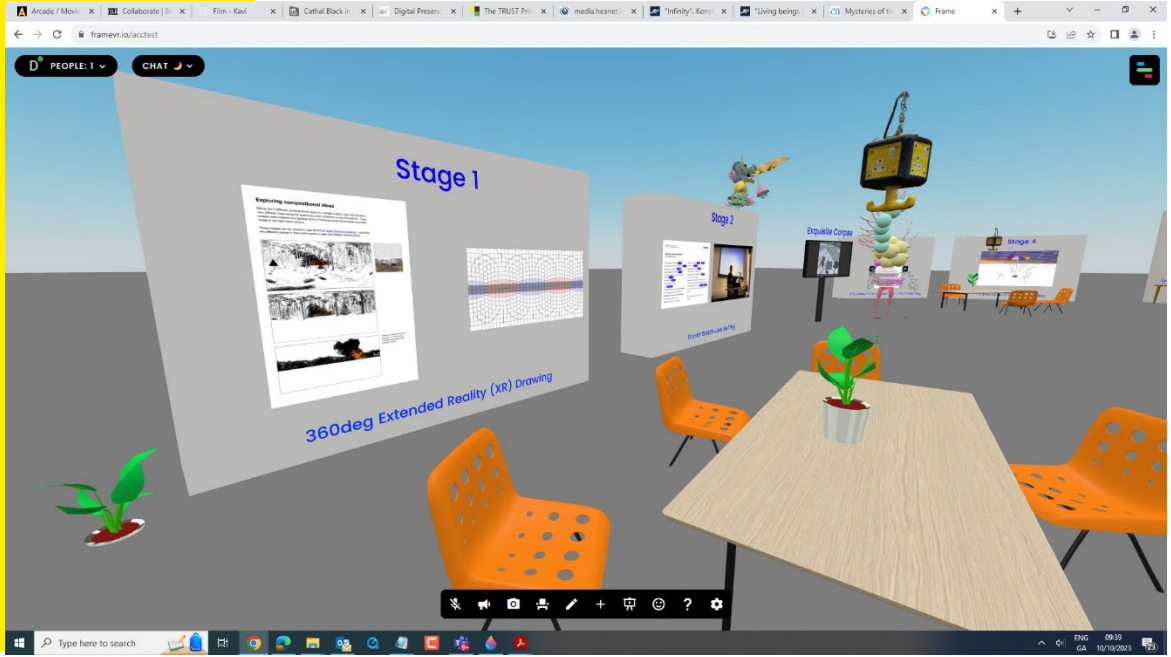
UAL

- University of The Arts London created a project space for staff and students.

- https://framevr.io/acctest



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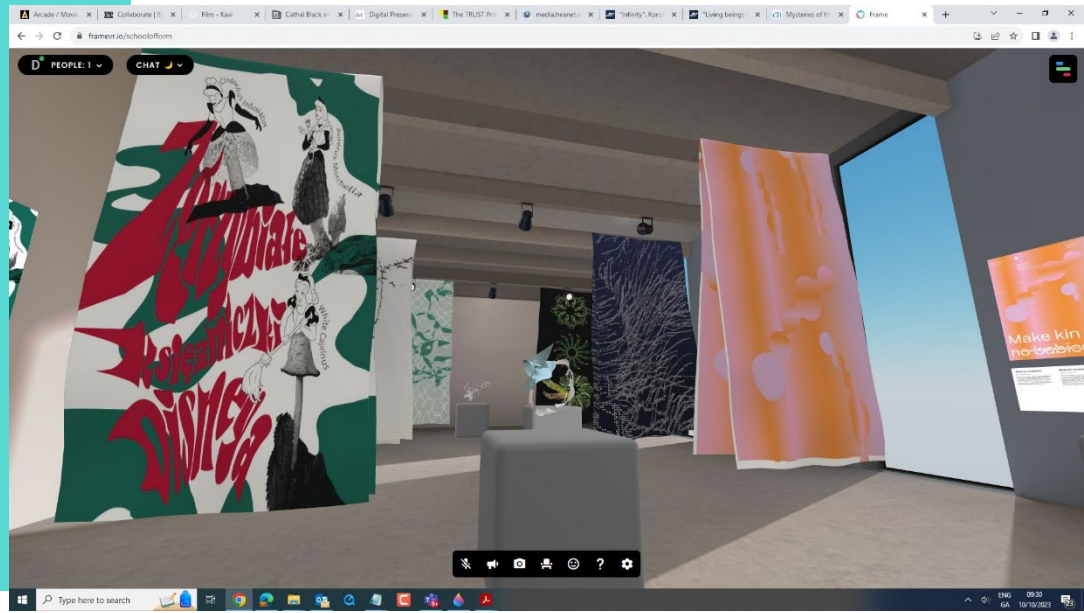
SWPS…

- SWPS in Warsaw created a print-based VR exhibition space
- https://framevr.io/schoolofform-1



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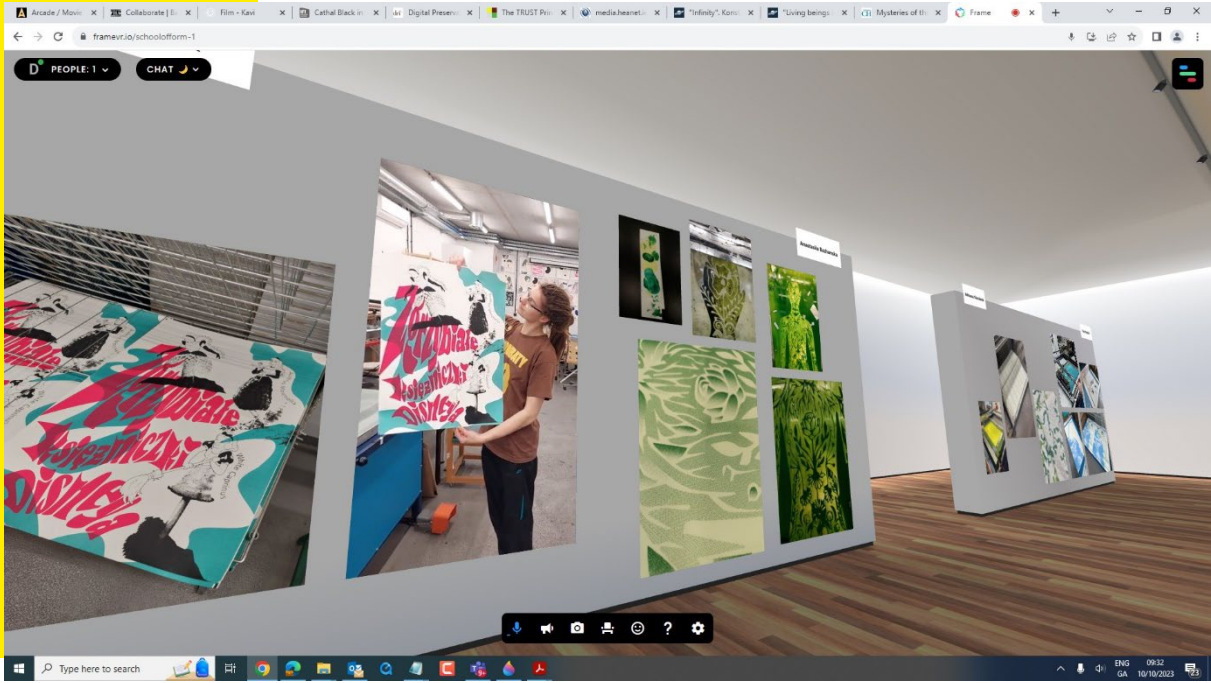
SWPS

- SWPS also created a screenprint ‘how to’ exhibition

- https://framevr.io/schoolofform



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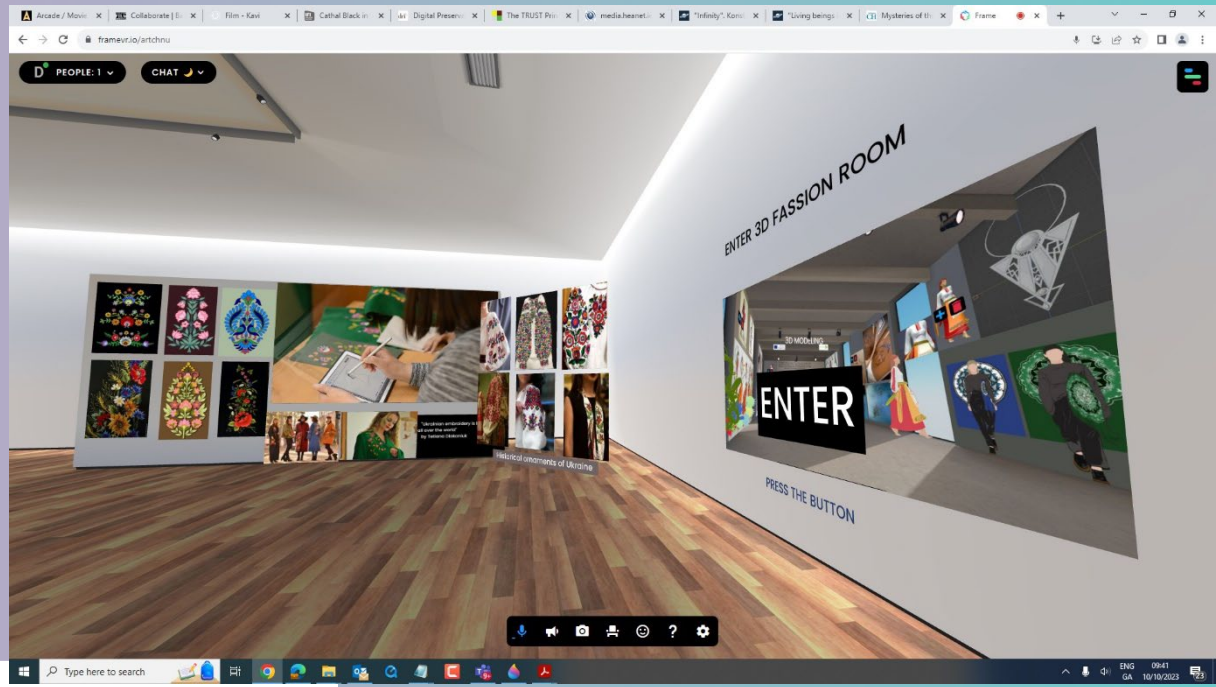
Chernivtsi National University Ukraina...

- Chernivtsi created an exhibition of student work…

- https://framevr.io/artchnu



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Plus sides…

- PLUS SIDES. VR can be an incredibly immersive experience.
- Some VR platforms (Gravity Sketch (for example)) can be quite intuitive/quick to LEARN – much less about complicated than their screen-based equivalents (heavy GUIs etc)

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Down sides…

- A major DOWNSIDE to VR technology is cost.
- TECHNICAL INSTABILITY (VR technology is changing ALL the time. It's very hard to keep up with the changes and with 'current' practice).
- TECHNICAL REQUIREMENTS (VR requires very capable high bandwidth broadband communications, powerful computers to create VR assets and content and headsets which can be difficult to set up and use.

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Downsides…

- TECHNICAL BARRIERS (VR technology is NOT technically EASY TO LEARN, especially for ordinary art, design and media teachers AND THEIR STUDENTS.
- This is especially true where we're talking about the difference between CONSUMING and CREATING – CONSUMING VR content can be quite easy.
- CREATING VR content is not easy and requires a lot of technical learning.

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More Plus sides…

- VR platforms allowed us to come together from Ireland, United Kingdom, Poland, Ukraine to visit exhibitions and to work as a project team.
- Recorded online classes can become wonderful asynchronous learning resources, which students can access at a time of their choosing. Students can also watch sections of online classes repeatedly.
- Students can visit VR spaces when they want, when they need, to access the resources at a time of their choosing
- VR (and FrameVR) do ONLINE exhibitions very well…

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– https://framevr.io/accelerate-advanced

Basic pedagogy and online pedagogy?

- Online pedagogy largely comes back to basic pedagogy
- **WHY** am I using this technology?
- **How** am I organising my VR class? *Using VR does force us to consider technical aspects.*
- **How** does my VR class fit into the overall module (and how does it relate to the Module Learning Outcomes)?
- **How** do I KNOW the students are learning what they NEED to learn in the VR learning space?

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Lesson Plan Checklist…

- Lesson Plan Checklist…
- WHY are you doing this?
- WHAT platform will you use?
- WHAT do you want to accomplish?
- WHAT will the outcomes be for your STUDENTS?
- HOW will you know what worked, what didn't work?

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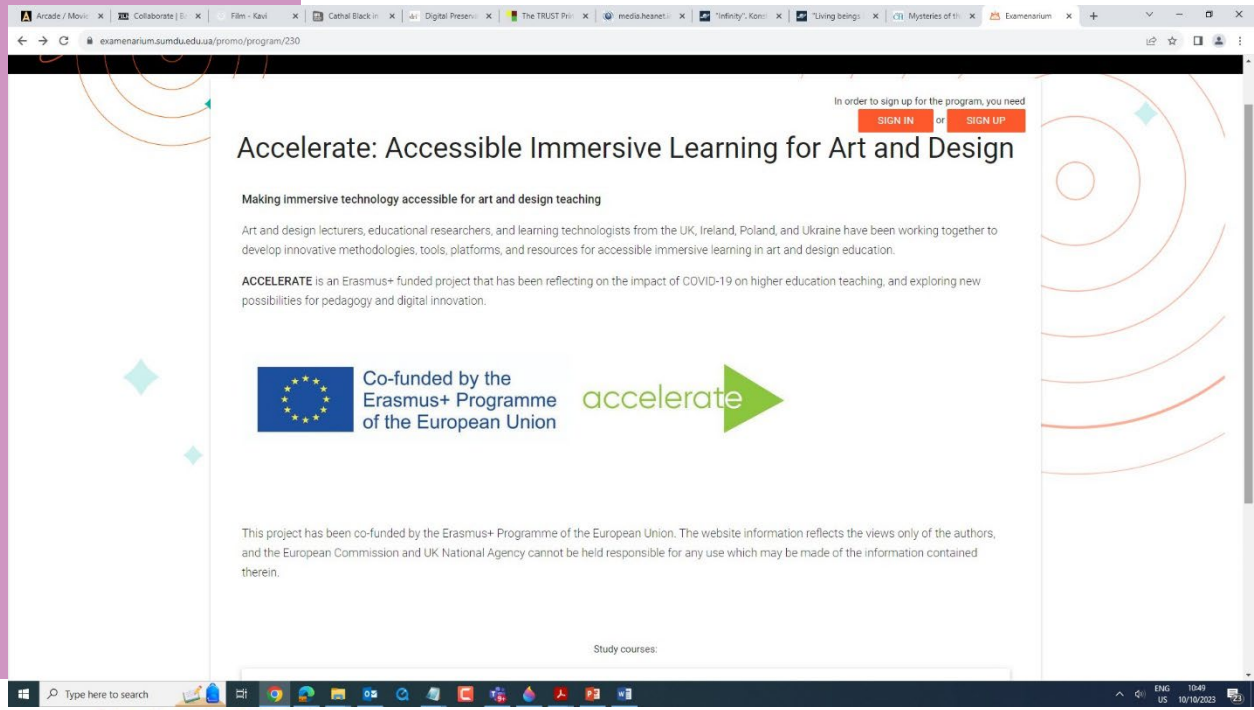
ACCELERATE ONLINE COURSE…

– https://new.examenarium.sumdu.edu.ua/promo/program/230



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Questions?

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