



# **“Step Back in Time”: Digital Transformation with student engagement in collaborative learning**

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# External Collaborative Learning Practices



- External projects in the creative sectors in the area of museums, library, exhibition, and gallery.
- We aim to engage students to work with us to explore digital and emerging creative technology to design multi sensory, immersive, interactive narrative experiences

# “Step Back In Time”: Historic BBC Studio Recreation



Work in **partnership** with the department of learning and interpretation at the Alexandra Palace Trust.

Facilitate **students at UOW to get involved** in the historic BBC Studios in 1930 recreation project to restore and reopen the spaces; to inspire their visitors by providing a new, mixed media and creative technological approach to spread the story of Alexandra Palace to wider audiences.

# Digital Transformation with Student Engagement



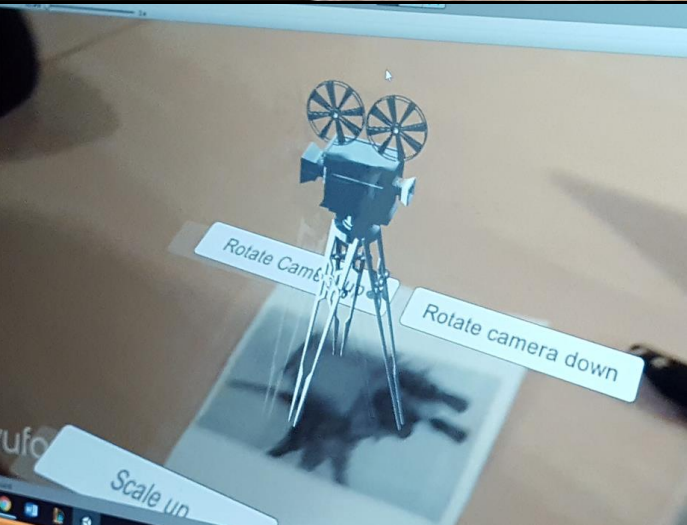
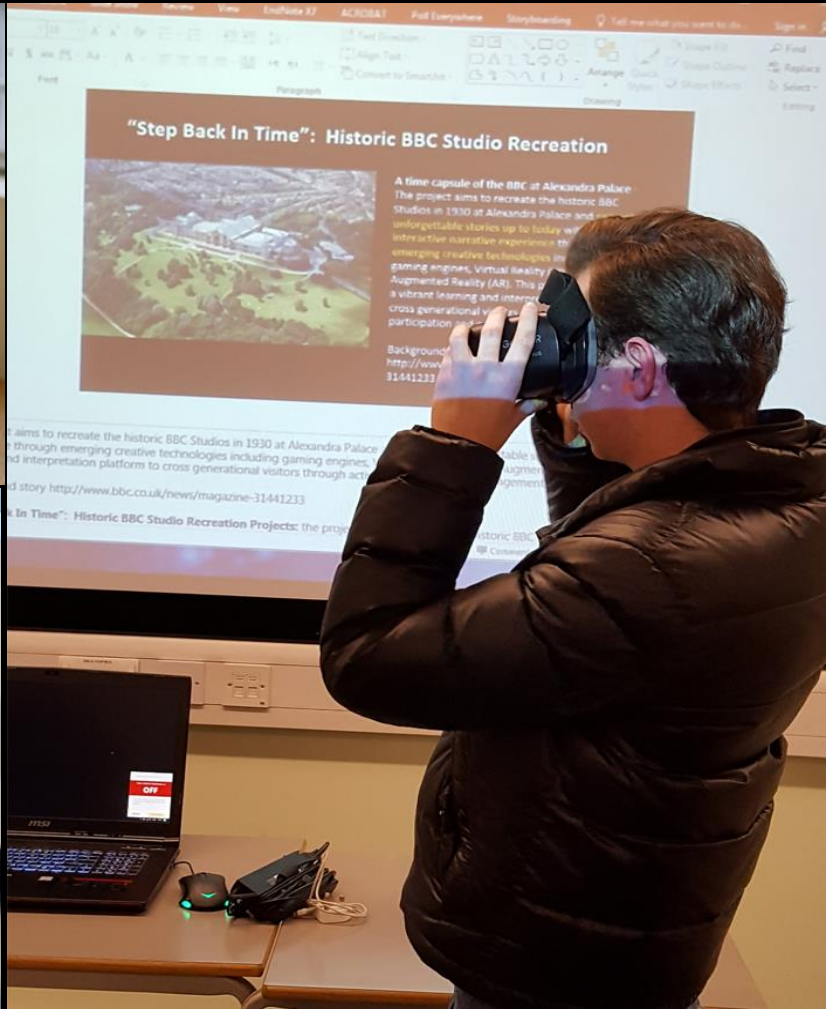
The collaboration with practical exercises, examples and case studies focus on:

**Digital transformation** with the agile project methodology for the design and development of creative projects;

Increasing relevance and public engagement through appropriate use of emerging technology;

Impacts and sustainability of symbiotic relationships created. This provides fresh perspectives and windows onto inaccessible histories, spaces and collections.

# Emerging Creative Technology



# Digital Transformation with student engagement

To facilitate student engagement through collaborative learning practices with emerging creative technology through

Final year projects

Student Engagement workshops

Westminster Plus elective module





## Networking, Research, Field trip and Brainstorm...

The National Science and Media Museum  
Wimbledon Lawn Tennis Museum  
e.g. Emitron camera used from the beginning  
of the BBC's British Television



# Creative Project Methodology



## Agile working processes

The Agile approach refers to an iterative, incremental method of managing the design and development that aim to provide digital products or services in a **highly flexible** and **interactive** manner.

**Communication** and **collaboration** with partners is more important than standard procedures and tools.

Focus on **delivering a working application** and less focus on providing thorough documentation.

Be open to changes instead of freezing the scope of the work.



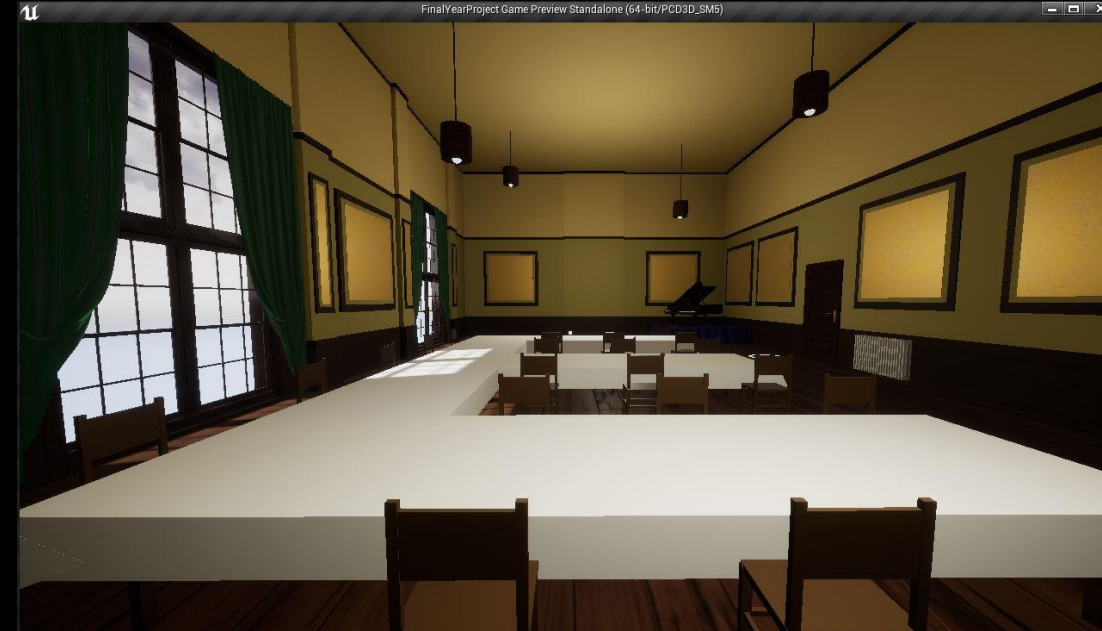
# Prototype: “Step Back in Time”

Student got involved in the external collaboration and further developed promising digital transformation projects.

**Emre Irmak** (Level 6 Computer Science) prototyped a mobile VR-based interactive tour app of historic BBC studio to let visitors step back in 1930.

The technical solution adopts the modern game engine, Unreal Game Engine 4 to develop an interactive game-like scenarios to bring visitors to experience a guide tour to the Victoria period, BBC studio 1930, and the future following by a controllable interactive timeline.

It also provides VR experience with the sense of immersiveness via Samsung Gear VR.



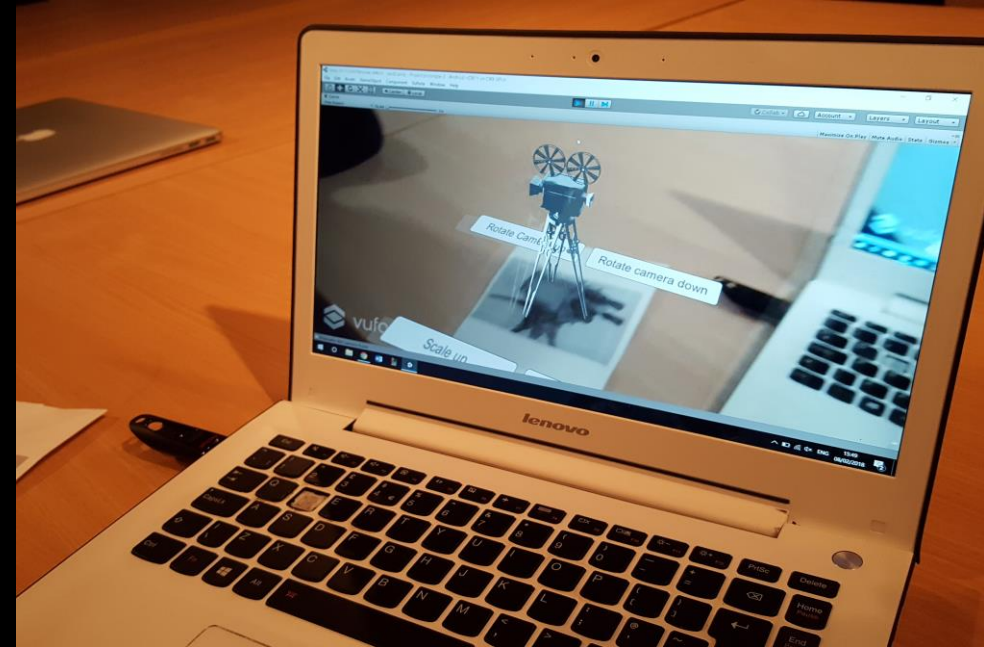
# Prototype: “Digital 3D Popup”

Zaid Esmail (Level 6 Computer Science) prototyped

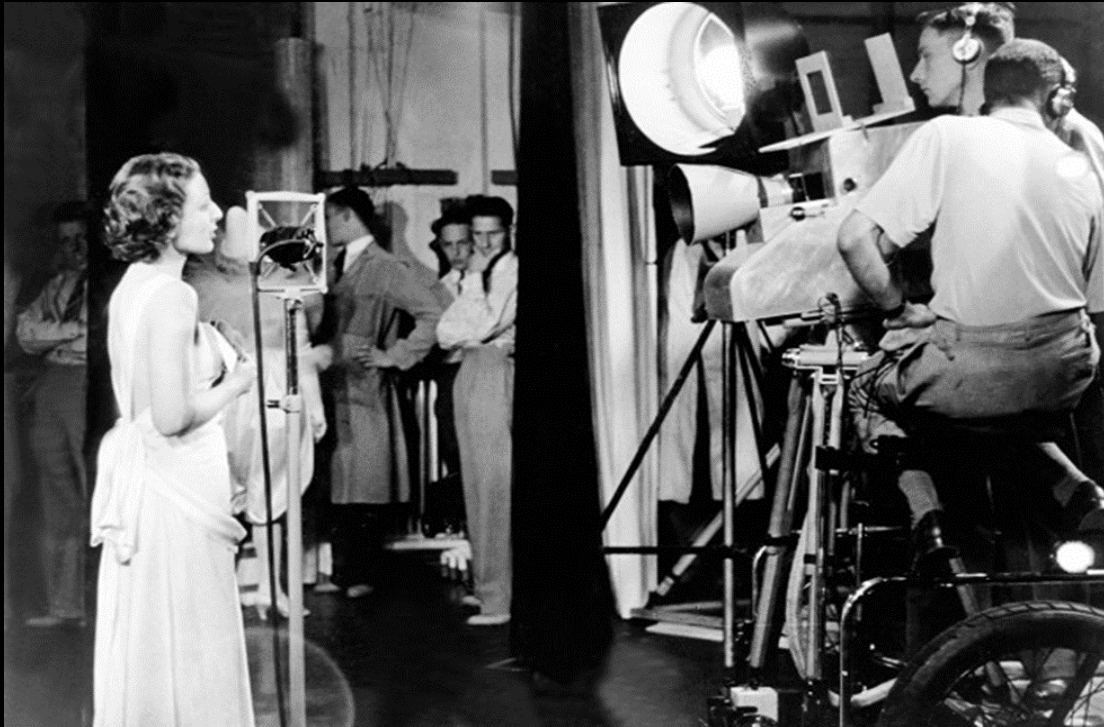
A mobile interactive **Augmented Reality** application to showcase 3D historical equipment of BBC studio e.g. Emitrons camera within a real surrounding environment to achieve mix reality experience.

The technical solution uses Vuforia AR SDK to track 2D images/photos of selected collections as makers to popup 3D models of equipment.

By exploiting the potential Augment Reality(AR) engagement with collections to enhance learning and interpretation and further incorporate story telling for memory triggering.



# Digital Transformation with Student Engagement



**Sharing resource** – the AP online exhibition the launch of television to get an impression of the images, videos and documents available:

<https://www.google.com/culturalinstitute/beta/exhibit/OgLiGoPtscXvLw>

**Transfer knowledge and skills** by exploring digital approaches to promote unforgettable stories up to today with an interactive narrative experience through emerging creative technologies including gaming engines, Virtual Reality (VR) and Augmented Reality (AR).

We have been invited to showcase the project outcomes in the upcoming Alexandra Palace summer fair on 18<sup>th</sup> August 2018.

# Digital Transformation with Student Engagement

The pilot pedagogical collaborative learning practices fosters innovation and creativity, inspired by TEL via student Engagement. It also support Alexandra Palace Trust to inspire their visitors and to help curators think beyond their current boundaries, providing a new technological approach to spread the story of Alexandra Palace to wider audiences.

**Next step** - further explore how to meaningfully engage with cross faculty students whose far reaching interests can often have a digital transformational impact on the cultural landscape and pedagogical impact on the wider communities.

