Immersive experiences and difficult heritage: Past lessons / Challenges ahead

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Immersive experiences – a working definition

• All forms of perceptual and interactive use of technologies that blur the line between the physical world and a simulated or digital world

• Experiences in which the user “feels part of the experience as a whole, encompassing all spheres of attention:
  – Sensory immersion (audiovisual, olfactory, haptic elements)
  – Challenge-based immersion (interaction)
  – Imaginative immersion (narrative and interpretation)

• Experiences that are enabled by mixed/hybrid reality, through merging of real and virtual worlds to produce new environments and visualizations where physical and digital objects co-exist and interact in real time
Immersive experiences – perceptual types

- 3D (stereoscopic)
- 4D - Combination of 3D (stereoscopic) synchronized with physical effects and sensory inputs, e.g. olfactory effects; vibration; sprayed water
- Fulldome: One or more video projections onto a dome create an immersive experience to viewers within the dome.
- Holography: A hologram is a photographic recording of a light field, rather than of an image formed by a lens.
- Virtual Reality (VR) creates a digital simulated world that the user is fully immersed in from a visual perspective, generally through a Virtual Reality headset
Immersive experiences – perceptual types

• Augmented Reality (AR) blends virtual reality with the physical world. A user can see and interact with virtual objects in the real world with a special

• 3D audio and surround sound manipulate the sound a person can hear by placing and controlling the sound created from speakers places in various locations around the listener (e.g. in front, on top, behind and on the sides of the listener). Surround sound is an advanced version of 3D audio where sound is recorded and played through multiple audio channels from multiple speakers that surround the listener.

• Haptic technologies apply forces or vibrations to the user which create the sense of touch
Immersive experiences – interactive types

While the perceptive technologies provide input to the user, interactive technologies recognize the various outputs a user provides and respond to it accordingly

• Speech recognition technology (e.g. Siri, Amazon Alexa, Google Home) Motion gesture solutions (e.g. Playstation Move, Xbox Kinect)
• Omni-directional treadmills (that allow a user to move in multiple directions within a virtual reality)
• Brain-Computer Interface technologies, which provide a direct communication pathway between an enhanced or wired brain and an external device
The Scottish Heritage Partnership

SCOTTISH NATIONAL HERITAGE PARTNERSHIP
Principal Investigator Professor Murray Pittock

Immersive Experiences Showcase
AHRC Creative Economy Programme
4th December 2018

University of York
Department of Theatre, Film and Television
“Difficult Heritage”

“concerned with histories and pasts that do not easily fit with self-identities of the groups of whose pasts or histories they are part. Instead of affirming positive self-images, they potentially disrupt them or may threaten to open up social differences and conflicts. Difficult heritage deals with unsettling histories rather than the kinds of heroic or progressive histories with which museums and heritage sites have more traditionally been associated.”

(Sharon Macdonald, ICMAH Conference 2007)
How about terror?
Like, actual terror.

Like a VR experience,
but like,

"I'm actually gonna die." Like war.
The Day the World Changed

HIROSHIMA, 1945
The Gabelein Man
Virtual autopsy of the Gabelein Man, British Museum
The Battle of Bannockburn
Difficult Immersion: The Greek challenge
Block 15
The production will combine:

- Dramatic story-driven exploration of the concentration camp and important landmarks
- Interactive discovery of facts through narration and point-and-trigger actions and events
- Incorporation of authentic historical material
- Reconstruction of the original site based on historical and architectural facts
- Strictly non-commercial, free-to-use policy
Objectives and Expected Impact

As the first immersive experience focusing on a contested site in Greece - and one of the first across Europe - the production aims at creating impact on many different levels:

- enhancing understanding of and engagement in the functions of the building and the historical context
- renewing cultural identity of the region of Athens
- fostering civic participation of diverse socio-cultural groups
Further issues to consider

- Objectivity
- Re-interpretation
- Educational purposes
- Visitor experience
- Preservation
Thank you!

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