

Using AR & VR in cultural and heritage sites

Viki Johnson @alittleredpanda

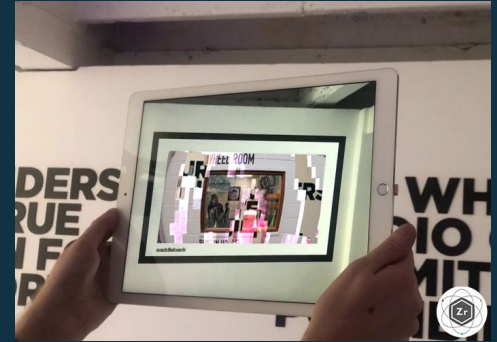
Augmented and Virtual Reality

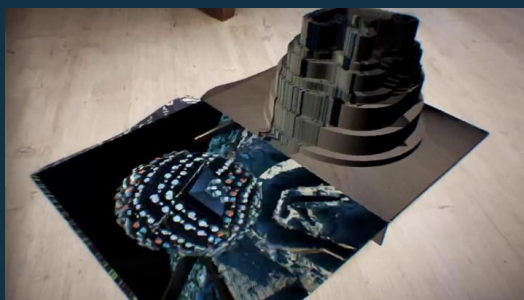
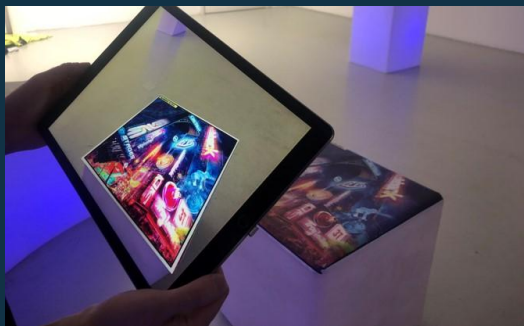


- VR is the term for software played through a headset, placing you in a computer generated or virtual world
- On one end of the scale, you get mobile phones in cardboard holders, typically for 360 videos with no interactivity, or very simple games
- On the other are headsets like the HTC Vive or Oculus Rift, which power AAA games. They support movement around a room and can be used with controllers

Augmented and Virtual Reality

- AR uses a device with a camera, like a mobile phone or tablet
- The user holds this device and, through the camera, sees digital models or effects overlaid on the real world.
- They can be huge experiences that take over a huge big room, animations that appear when your device looks at an image. Or they can be effects that attach to your face, like a Snapchat filter.





- From the start of 2018 I worked at Zubr VR, as an AR dev, and occasional VR dev.
- While there I created Facebook filters, to installations covering entire rooms, and everything in between
- Worked with Crack Magazine, The National Gallery, Bristol Old Vic Theatre, among others
- The projects mentioned in this talk were created while I worked for Zubr
- Check out zubrvr.co

- For the last couple of months I've worked at Fictioneers, on the new AR Wallace and Gromit story The Big Fix Up
- Fictioneers is a consortium of Potato, Sugar Creative and Tiny Rebel Games. Together with the University of South Wales as our research partner, funded by Innovate UK
- The Big Fix Up is an all-new Wallace & Gromit story that brings the characters to the bleeding edge of technology. Fictioneers are changing the very essence of storytelling by creating a new, rich and multi-layered storytelling platform, where YOU can become part of the story.
- Check out thebigfixup.com

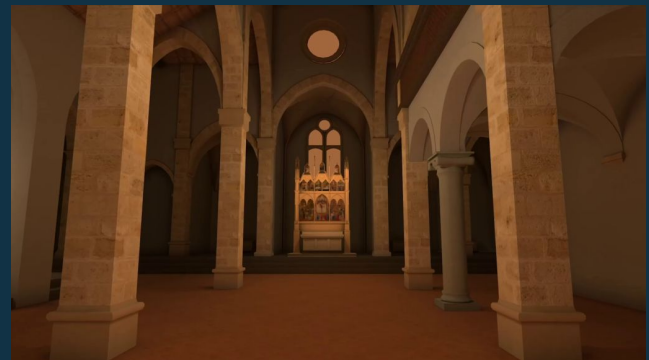


Why use AR & VR?

- These technologies have been teetering on the edge of popular interest and as tech has gotten better and smaller and much more powerful, it's all just become a lot more mainstream in the last few years.
- They can bring a lot to any exhibition or site. Can users be taken back in time? View delicate artefacts up close? Or be used as part of a performance piece?
- Combine game technology with fine art or National Trust properties to draw in a wider audience, through initial interest in the tech
- Appeal to people outside the typical demographic, either socially or geographically
- And digital exhibits can be shared easily with other sites, who may have less resources

The Downloadable App

- An app for download, that can bring other worlds to the user's home, is especially useful at the moment
- At Zubr, we worked with local app creators Calvium, and the National Gallery to create Hidden Florence. It can be used in the gallery, at home or in Florence to go back to where a particular painting once hung
- hiddenflorence.org



The Downloadable App

- Consider what phones you are promising your app to work on, so keep it small and simple. No PS4 graphics
- Will users have to download an app to use at your site? If so provide wifi. Not everyone can download easily, especially visitors from abroad. Same for apps requiring an internet connection
- You have a duty of care for people using the app. Don't encourage them to use it somewhere illegal or dangerous. For Hidden Florence, we had to warn people about standing in the centre of a busy Italian street
- People think that if an app tells them to do something, it must be ok

The Preloaded Device

- At Zubr we mostly created apps loaded onto devices owned or rented by the client. One of these is the app Bristol Old Vic: Window to the Past
- As part of the theatre's new restaurant, they wanted works to show the history of theatre, so users can see what various areas used to look like.
- It's used on their heritage tours, especially when kids visit from the local area.
- Also included a version that worked outside of the theatre. The heritage team could take the devices to local schools, to share the history with kids who may not have been able to see if otherwise.
- bristololdvic.org.uk/heritage/interpretation/window-to-the-past

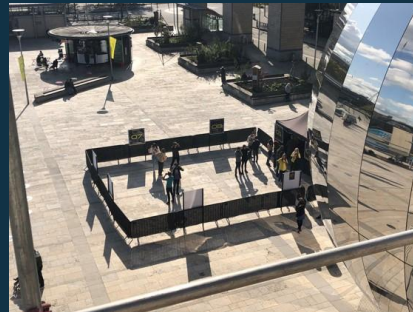


The Downloadable App

- If you lend devices out to the general public, make sure you keep track of them. And their chargers...
- Think about where it will be placed in. Will there be space for the app to be used? Is it near stairs or other hazards?
- Test the app early in the exact location and lighting conditions. Shiny floors, darkness, too much light, lifts, certain floorings can all affect the app

The Ticketed Event

- Last year at Zubr, we worked with Simple Things Music festival to create a VR music video for electronic artist Aisha Devi, and it was a big success.
- Users had to sign up in advance and turn up for their slot. Everyone was given a headset, and could walk around in a small area while they all watched the video together.
- We allowed half an hour for a ten minute video, giving us time to get people comfortable, and allow for technical difficulties
- We needed a lot of chargers, and a chance for the phones to cool down



The Ticketed Event

- Staff are super important at these events. At Simple Things we had about eight people to manage it.
- Make sure your staff know the tech and can explain it to people who have never used it
- At an event I worked on, some children got hold of the iPads and started playing games on them. Some more forceful staff would have been useful
- If you're in a slightly alternative location, make sure there are facilities for your users, such as toilets. People are sharing headsets they need to have clean hands!

Other considerations

Historic Accuracy & IP Guidelines

- My very first project like this was to recreate a Bronze Age settlement, while I was an university.
- Different historians we spoke to had different ideas of what the homes would have looked like. We had to compromise to make inaccurate light sources.
- We should have decided on how everything looked, and the levels of accuracy before we started. So that we didn't make three types of hut.
- This is also something to take into account when placing popular IPs or existing characters into the digital world



Set Dressing

- Think about ways to enhance the place your app is exhibited
- For a mini game app, commissioned by a luxury holiday company at Zubr, we made a phone holder out of a replica Derringer. So when they were shooting pirates in the games, they were physically holding this little gun
- I've heard about VR spaces being dressed up with soft furnishings and scents to immerse users even more in the experience



Make Content Shareable

- Social media is a pretty big deal. And you're making an app that already uses a camera.
- When I worked at Zubr, we made a lot of Facebook filters, including this one.
- The main app was a VR experience at the Eden Project, featuring extinct animals. So we made a filter to bring those animals into your home.



Communicate with your devs

Early and frequently!

More than in any other sector, people working within the culture and heritage are the most passionate about what they're working on. Some have been researching their area for years.

And as developers we're not always invested in the same way, so I think its important to always keep devs in the loop. We won't be able to make things the way you want without your feedback





Culture
in a time of
COVID-19



Arts and
Humanities
Research Council

AHRC - Boundless Creativity

Check out this panel to hear how The Big Fix Up, and other Audience of the Future grant winners are adapting in the current climate

vimeo.com/415086328/fd0edf5ff0