# Changing Perceptions: The Social Implications of VR and AR

Emma-Jayne Reekie

The embryonic stages of most anything tend to be exciting; the young musicians creating a new genre, the artist using a new form, and the technological innovator developing a new medium. History shows us that where there is innovation and technological development, not far behind are social, economic and political changes. Perhaps one of the most exhilarating parts of innovation is its process of domestication – look at how the record player allowed people to connect to the pop star in a way never before possible, how the television allowed the celebrity to enter one's home and the games console allowed for an escapism to be realised outside of the imagination. At a time when society is inundated with technology, for example constant new models of smartphones that barely differ from their predecessors, it is virtual and augmented reality that is on the precipice of exploding into our lives, and homes, exploring uncharted territory and new ways of communicating, educating, storytelling and so much more.

While still not quite universally accessible in the home, there are exciting developments in the world of virtual and augmented reality that are beginning to hint at the possibilities ahead of us. **Marshmallow Laser Feast** are a design studio who describe themselves as "looking to create ground-breaking experiences that immerse and amaze in completely unexpected ways", and in addition to this they seem to be on a mission to educate through new avenues too. One of their recent projects is *Treehugger: Wawona*, a virtual experience that follows a single drop of water as it travels from the roots of a tree to the tips of its branches; MLF are hoping to move people away from consumerism towards conservation through awareness created through their VR work.
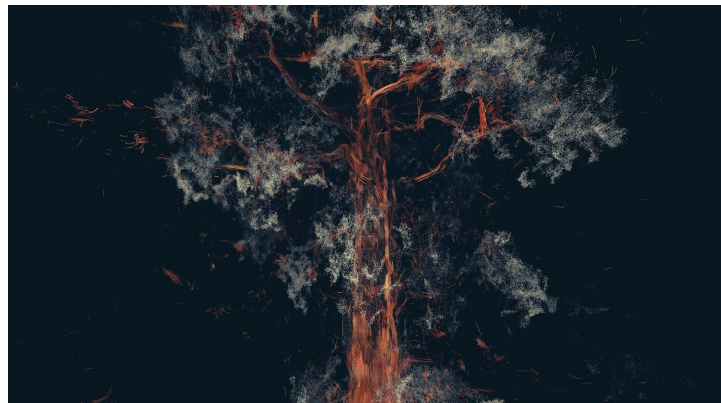
Marshmallow Laser Feast and **Alex Pearson's** VR project *Future Aleppo* has recently been announced as the winner of Sheffield Doc/Fest's Alternate Realities commission awarded in partnership with FACT and Arts Council England. *Future Aleppo* has been described as a way of preserving and defying the destruction of the Syrian city of Aleppo and its origins are in paper models built by Mohammed Kteish in an attempt to remember the home he had to leave at the age of 10. Now 15, Mohammed guides the users of *Future Aleppo* through the buildings, city and its inhabitants in a VR piece that has been called "poignant and powerful" by Dan Tucker, curator of Doc/Fest's Alternate Realities portion. The piece was showcased at Sheffield Doc/Fest in June 2017 and at FACT from October 2017 to February 2018 (extended by six weeks due to popular demand).

VR/AR is also clearing a path for not only the development but also the extension of film making. The multi-award winning and phenomenally moving documentary film *Notes on Blindness* was released in 2016 based on the audio diaries of writer and theologian **John Hull** who was attempting to understand his journey into blindness. The film has been described as "excavating the interior world of blindness", and complimenting the story world of the film is the virtual reality project *Notes on Blindness: Into Darkness* which is award winning in its own right, winning the Storyscapes Award at Tribeca Film Festival and the 2016 Alternate Realities VR Award at Sheffield Doc/Fest. This accompanying VR project

allows for the audience to be immersed into a "world without sight", demonstrating VR's unique ability to explore and understand the human condition in a way no technology has ever before facilitated.

It is fitting that such an immersive, progressive technology that creates new experiences for understanding people and nature has fostered such a collaborative community on a global scale. In Liverpool, **FACT** has been commissioning AR work since 2012 through international art collective **Manifest.AR** who have undertaken projects such as *Turning Fact Inside Out* where augmented reality technology is used to alter the cityscape whether it be through deleting parts of the city or inserting wild fauna. FACT has also been working with **Newcastle University** who has been combining heritage sites with contemporary landscape through augmented reality and storytelling, developing an innovative platform to showcase Liverpool One's links to the Old Dock - world's first commercial wet dock (1715).

FACT also works closely with **Kinicho**, a 3D audio development and immersive sound design company who exhibited their *Cosmos* project in FACT's foyer as part of Liverpool's first ever **Binary Festival** in 2016. *Cosmos* is a 20 speaker spherical structure that immerses the listener in sound in a similar fashion to a VR experience. Detailed in the picture below are the elements that contribute to the immersive audio experience. Elsewhere in the North West there is *VR Manchester* which acts as a community for VR enthusiasts to meet, play and share which was founded by **Simon Lumb**, senior product manager for the BBC's research and development department which is investigating and developing 360-degree videos and VR for broadcast related applications.

Of course, a field so young needs to be documented which is why it's unsurprising that academic research is already starting to emerge around it. At the **University of West**

England there is a research strand within the **Digital Cultures Research Centre** called *iDocs* which acts as a dialogue between practitioners, students, researchers and enthusiasts of interactive documentary, a subsection of which looks at virtual reality in documentary. At **Coventry University, Sarah Jones** is focusing on immersive realities and experiential film within immersive storytelling and at an international level **Lance Weiler** stands as the director of **Columbia University's Digital Storytelling Lab**.

Despite its developmental stages what is obvious is that at its core, virtual and augmented reality is attempting to better storytelling whether that story is based on catching Pokémon or raising awareness about a particular human condition or the precarious state of our planet. VR/AR is a product of our increasingly globalised world; it is multi-discipline, collaborative and has great potential. As it stands, it is thoughtful, considered and educational and as it grows and has greater opportunity to influence and innovate it will surely continue to surprise and delight us in ways we think are not yet possible.

Additional Reading/Viewing:

- The Complete Guide to Virtual Reality – Everything You Need to get Started

  https://www.theguardian.com/technology/2016/nov/10/virtual-reality-guide-headsets-apps-games-vr

- Augmented Reality – It's Like Real Life but Better

  https://www.theguardian.com/technology/2010/mar/21/augmented-reality-iphone-advertising

- Virtual Reality Has Arrived in the Art World. Now What?

  https://www.nytimes.com/2017/02/03/arts/design/virtual-reality-has-arrived-in-the-art-world-now-what.html

- Step Inside an Artist's Painting with Virtual Reality

  http://mashable.com/2017/04/23/teek-mach-vr-painting/#RKWHhbTevsq6

- Will Virtual and Augmented Reality Move Us into the Knowledgeable Age?

  https://www.youtube.com/watch?v=2FA-luDTMjE

- What the Coming Education VR Revolution Teaches us about the Tech's Future

  https://techcrunch.com/2016/12/16/what-the-coming-educational-vr-revolution-teaches-us-about-the-techs-future/

- Is 2017 the Year of Virtual Reality Film-making?

  http://www.bbc.co.uk/news/entertainment-arts-39623148

- 8 Ways Virtual Reality Could Enhance the Lives of Disabled People

  https://www.abilitynet.org.uk/news-blogs/8-ways-virtual-reality-could-enhance-lives-disabled-people

- Virtual Reality Start-Up goes from Liverpool to Silicon Valley

  https://www.ft.com/content/19c2f3a4-5242-11e6-9664-e0bdc13c3bef?mhg5j=e1

- Apple Joins Microsoft, Google in Race to be No.1 in Augmented Reality

  https://www.forbes.com/sites/jamesdetar/2017/06/12/apple-joins-microsoft-google-in-race-to-be-no-1-in-augmented-reality/#6ceae98a5a67