

Proposal for Immersive Accessible News

Online news consumption is becoming more prevalent, and technological advances mean that a growing number of newsrooms are experimenting with immersive techniques (Mabrook & Singer, 2019). Immersive Journalism has the potential to reach new audiences and change the way that stories are told, providing more interactivity with the news industry (Uskali, 2020). However, research into the field suggests that advances in digital journalism are unrepresentational for people with cognitive and learning disabilities, who may not be able to use web content effectively, because of design and content choice (w3.org, 2019). They are easily distracted by the fragmented and fast-paced structure of online news (Barnhurst, 2012), and confused by click heavy norms and advertisements. The proposed innovation 'Immersive Accessible News' is a platform of accessible digital news content. It will use immersive multimedia storytelling to recreate news stories for people with cognitive and learning disabilities. It is aimed at the field of digital journalism, which is considered to be the future as more newspapers and print are facing a decreasing circulation (Dutta & Gangopadhyay, 2019).

In the UK alone approximately 1.5 million people have a cognitive or learning disability (Mencap, 2019). Clinical diagnoses include Autism, Down's Syndrome, and traumatic brain injuries; less severe cognitive conditions would include learning disabilities in general. The functional limitations of the audience can vary for each individual and can range from trouble with memory loss, attention span, reading, verbal and visual complexities. To design a platform that the user feels comfortable with, they need to be able to know where they are at all times, can navigate back and forth, and consume content as they desire (w3.org, 2019). 'Immersive Accessible News' aims to create opportunities for users to have

interactive engagement with news stories and developing innovations, resulting in the audience feeling more informed and confident about current affairs. The platform will use virtual reality technologies (VR) such as 360° video and head-mounted displays, and multimedia long-form narrative which combines media elements. Across the design, elements of easy read methods will be implemented including bold text, sans serif font, and shorter sentences. This will be familiar to users as easy read information is already designed for people with learning disabilities. Research has found that there is a growing interest in whether digital technologies can make a difference to people with disabilities, social inclusion, and welfare (Tsatsou, 2019).

Developments in virtual and augmented reality technologies allow audiences to be taken to unreachable places. For example, in 2016 the New York Times implemented 'The Daily 360' which reported on a daily story from around the world using 360 videos. Multimedia stories aim to completely immerse the reader, an iconic example is the New York Times "Snowfall" (2012) which illustrates the digital precursors of VR techniques (Mabrook & Singer, 2019). Since then immersive technologies have developed to demand vigorous interaction characterised by active engagement rather than passive escape from readers (Dowling, 2019).

'Immersive Accessible News' will use multimedia longform narrative to identify key points and significant developments from news stories breaking them down into less complex pieces of information. For example, it will focus on a key person in the story by using a photograph of them and describing who they are and why they are important to the article. As a genre, longform exhibits novel features such as simplified navigation and user

interfaces, together with smooth transitions between content which slow down the readers' interaction (Hiippala, 2017). Similarly, Dowling and Vogan (2015) identify longform as creating a 'cognitive container', which minimises the distractions from the outside world. This would be proven a beneficial aid for the functional limitations that the target audience may have, particularly attention span and memory.

The innovation will create fictional narratives based on news events using VR. Immersive qualities now allow users the opportunity to look where they want in their own time (Jones, S, 2017). The design will feature coloured arrows for left, right, up, and down indicating to the user to look around and the option for a virtual guide. Previous studies by Shaker et al (2019) into how virtual reality environments can influence people with cognitive disabilities found that users like the option of having someone there to assist. 360 videos will be used to establish locations and surroundings of news events. Whilst VR head-mounted displays will focus on providing coverage of events, featuring pause buttons that allow the user to consume content as they desire and optional additional interaction points. In a study by Garzotto et al (2018), it was found that head-mounted displays remove distraction from the outside world for people with intellectual disabilities, as well as proving beneficial for people with severe attention deficit disorder.

Live motion, interactive VR can be expensive to produce (Sirkkunen, et al, 2016). To combat this problem users will be asked to pay a monthly subscription fee of £5 for VR news content that uses a head-mounted display. Users will be provided with a google cardboard headset, the most affordable on the market and this would be subject to change as the platform advances. It is important to consider that users might reject the option of VR as it

might potentially scare them, they may feel wary of the headset or the design could cause motion sickness. For designers to understand the parameters of the audience, focus groups will be run with appropriate potential end-users. The design aims to make the users' experience as personal and immersive as possible by offering visual and verbal aids for the user to help them to feel comfortable with the technology.

To fund the innovation, charities including United Response, British Institute of Learning Disabilities, and the Royal Mencap Society will be approached. All three charities have up to date spending strategies as identified on the charity commission website (2020). Suggesting they are actively engaging with projects across the UK. Funding for these charities currently comes from National Lottery and Government grants.

The platform offers a variety of content ranging from news on global and national affairs to education and entertainment news. It will be distributed weekly online and via an email link for subscribers. This idea provides a small solution to the digital divide, it looks at including people who struggle with the current state of news by designing a new innovative platform. 'Immersive Accessible News' has the potential to be implemented onto current online news sites once it has been developed and will enable people with cognitive and learning disabilities to access news stories in a way that is appropriate for their individual needs.

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