"*Chapter Three. What started as a trip to Edinburgh*" is an excerpt of a wider narrative. The segment presented for assessment is the starting point of the chapter, which would later return to traditional book-like text. The text messaging / social media messaging layout provides a visual cue from the regular text to highlight interactive decision making element.

This segment of narrative outlines a text communication between two late-teen girls and focuses on how the protagonists individual actions can affect climate change with their (her) decisions. The aim of this narrative structure is to enable the individual playing the game (reading the narrative) to scrutinise their personal actions. The hope is the decision making and outcome of these fictitious actions which are highlighted at the end of the section, will enable the player to make more informed choices in their real life in mitigating climate change.

Three key areas of consideration regarding the piece are; topic of climate change, audience selection and platform and interactive methods. It is also important to note, and evaluate the story segment presented as being written in a time of social lock down due to Coronavirus. This not only has impacted societies mental health but has also seen emerging conversations about the impact upon the natural environment.

Topic of climate change:

Climate change is a hot topic at the moment and has gained significant media coverage over the past few years. This, alongside my personal interest in the subject matter and real-life experience working on public engagement with the natural environment, made the subject matter a natural choice for this assessment. In alternative circumstances, as a student and science communication practitioner I would have stretched my skills into focusing work on an alternative subject area, however this has been limited by the opportunities available during the coronavirus outbreak.

The messaging and aim behind this piece was to enable audiences to understand how climate change mitigation can be achieved in their everyday life. The knowledge of using storytelling as an effective tool for communicating climate change also greatly informed this decision.

Research has found that even when audiences have directly experienced indicators of climate change, this has little change in their beliefs or attitudes (Risa, P, 2016). This clearly shows that seeing the impacts of climate change, is not enough for some audiences to take action. Therefore, could be argued that the use of a different approach in communicating climate change; through storytelling, could offer a viable

and impactful messaging tool for this audience as this medium may target their values and ideologies in a more impactful way.

When looking at the decision options presented within the story, this focused around ways to mitigate the effects of climate change rather than mitigating the causes. Tvinnereim (2017) discusses that actually there is some limit to tackling climate change, and that audiences are more focused on supporting mitigation techniques rather than the source of the issue. Taking this into consideration, a mitigation approach, which itself will help reduce the impact of climate change, is a sensible approach. For example posing audiences with a large problem such as how do you tackle climate change, can be daunting and have the opposite effect this narrative is trying to achieve.

Audience:

Sharman & Nunn (2019) state that ignoring young people's concerns about climate change could lead to worrying consequences. For me, this is one of the strongest rationales for the target audience for this story. The narrative presented in "*Chapter Three. What started as a trip to Edinburgh*" focuses on the 16 – 24-year-old female audience. Targeting this specific age range is intentional not only to address the concern raised above, but research has shown 40% of this age range are reported to be 'very concerned' about climate change (BEIS, 2019).

Approaching this audience with the storytelling method has been a creative challenge. Thinking along the stereotype of this age range we would assume they use social media, with one of the top 5 names being WhatsApp. The format of this (being able to integrate text messages, photos, gifs etc), lends itself to a storytelling narrative, two (or more) voices can be visually captured with ease with different speech bubbles and identifiers within the messaging software. However, more significantly for this project WhatsApp has been found to be the most appropriate of the social media platform to show emotions; both positive and negative (Waterloo, S, Etal, 2017).

One of the key elements, and strengths of storytelling is the emotion it can evoke in the reader. As we already know this audience is concerned, capitalising on this (in the right method) can provide an excellent springboard for messaging as this proposed story hopes to do. Chapman (2017) states that emotion is a powerful force in human behaviour, and therefore using this to target discussions on climate change can be an effective tool. However, it must also be recognised that with powerful messaging in this instance, there can also be negative association and triggers. Story narratives taking this approach purposefully must take care to not overwhelm readers. The almost simplistic messaging within "*Chapter Three. What started as a trip to Edinburgh*" aims to work on the strength of this, whilst sidestepping the potential negative impacts.

Platform and interactivity:

Storytelling as a medium goes back thousands of years and is a tried and tested approach for conveying messages. This of course highlights its merit as a medium, but using this approach when conveying scientific methods comes with its own challenges. As mentioned above the power of a story can be harmful to the associated messaging and audience.

Stories are typically associated with fiction, and the communication of non-fictional messages needs to be done with care. This is something which needs to be carefully constructed with "*Chapter Three. What started as a trip to Edinburgh*". Jones and Anderson Crow (2017) state that "storytelling taps into the most of human instinct to rely information, capture attention and persuade audiences". My proposed narrative has been designed to discuss that the actions taken by the protagonist can contribute to climate change mitigation – not fix it, and relies on this instinct to persuade audiences actions in the future.

The choice of interactivity with this story is mostly focused around the concept that interactivity helps to embed the messaging proposed, arguably in the same way that kinaesthetic learning does. The concept of individuals controlling and having input into an outcome (the interactive element within the narrative) can provide audiences with a feeling of agency, which Hand and Varan (2009) state has the potential to create a more transformative experience.

Hand and Varan (2009) also discuss that empathy is increased by interactivity with narratives. Again, this is another strong emotion which is critical for audiences understanding why their small actions matter. Climate change has been discussed as something challenging to care about when we don't always see the direct effect on our everyday lives.

Conclusion:

Despite the human nature to be attracted and perceptive to stories, this method still provides challenges. Creating an engaging, informative, and scientifically accurate narrative is, in my opinion, one of the hardest challenges for a science communicator. The pieces created "*Chapter Three. What started as a trip to Edinburgh*" aims to discuss climate change in a way which empowers and educates audiences, allowing them to learn from a narrative and put this into real life application.

The narrative has been well constructed and presented for its specific audience in a way that, I believe, will capitalise on the concern and empathy audiences may obtain through the story, but in a way which is not damaging to their mental health, or in a way which may spark a moral panic.

Bibliography

BEIS (2019). BEIS Public Attitudes Tracker. March 2019 (Wave 29). Retrieved from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/800429/BEIS_Public_Attitudes_Tracker_-_Wave_29_-_key_findings.pdf

Chapman, D, Lickel, B & Markowitz, E (2017) Reassessing emotion in climate change communication. *Nature Climate Change*. 7. 850-852. Doi.org /10.1038/s41558-017-0013-9

Hand, S & Varan, D (2009). Interactive stories and the audience. Why empathy is important. *ACM Computers in Entertainment*. 7 (3). doi/pdf/10.1145/1594943.1594951

Jones, M & Anderson Crow, A (2017) How can we use the 'science of stories' to produce persuasive scientific stories? *Palgrave Commun.53 (3)* 1-9 DOI: 10.1057/s41599-017-0047-7

Risa,P, Lewis,G & Feng B (2016). What Causes People to Change Their Opinion About Climate Change? *Annals of the American Association of Geographers*. 107 (4). 883-896. doi.org/10.1080/24694452.2016.1270193

Sharmnan R & Nunn, P (2019, 19, September). Ignoring young people's climate change fears is a recipe for anxiety. [Blog post]. Retrieved from: https://theconversation.com/ignoring-young-peoples-climate-change-fears-is-a-recipe-for-anxiety-123357

Tivinnereim,E etal (2017). Citizens' preferences for tackling climate change. Quantitative and qualitative analyses of their freely formulated solutions. *Global Environmental Change. 46.* 34-41. doi.org/10.1016/j.gloenvcha.2017.06.005

Waterloo,S etal (2017). Norms of online expressions of emotion: Comparing Facebook, Twitter, Instagram and WhatsApp. *New Media and Society. 20,(5).* 1813-1831. doi/full/10.1177/1461444817707349