Strength and Weaknesses of VR as a Storytelling Medium

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With Virtual Reality emerging quickly as a new and popular media, storytellers have had to learn quickly on how to utilize this media to its potential to deliver a memorable and engaging experience for the audience. Looking at examples from over the years, we can learn about how this media has greater advantages than others and have an idea of the steps that are needed to translate a story into a VR experience.

Fig. 1: *Terra Terra*! (2020) Family line up, 3D Previz by M. Babington.

While looking at VR as a medium, I believe it is important to keep what Marshall McLuhan (Philosopher and media theorist) once stated in mind, that "*The Medium is the message*" (McLuhan, 2001). Simply put, you can only receive a story or idea through a medium. It is not the idea or the story that is being expressed but the medium, thereby the medium should be the focus of the study. Furthermore, Linda Hutcheon also expresses that "*While no medium is good at one thing and not another, each medium like each genre has different means of expressions and can so aim at things better than others*" (Hutcheon, 2004, pg. 109).

With those statements, the questions when approaching VR is a) what is the goal of VR? and b) what are its strengths and weaknesses as a medium? The goal of VR is immersion, putting the audience into a story or world, leading into *"The role of the viewer can be passive, observant, active, or interactive. The whole purpose of virtual space design is to achieve an immersive and interactive experience between the viewer and the world*" (Gauthier, 2013, pg. 4). This depends upon what the creator wants to express and with differing outcomes.

Fig. 3: Theater Mania (2017) Javier Muñoz stars in *Hamilton* on Broadway.
(© Joan Marcus)

With that in mind, when we compare VR to previous mediums, it is easy to attribute it with its similarities to traditional TV or cinema as a visual and audible medium, however, I would argue that VR is more alike to theatre. While both mediums use their respective media to direct the audience's attention both visually and audibly, film and TV have the advantage of using framing, composition, focus, blocking and lighting to direct the audience's. However, VR offers a more unique immersive experience, more akin to theatre with methods it uses to direct the audience's eyes on a stage. For example, in this picture from *"Hamilton"* (Figure 3), there are multiple elements that help draw the audience's eyes on what is considered a busy stage. There are multiple people looking and leaning towards the main actor, who is lit *center stage* by a spotlight. The audience's eyes follow not only read and follow their pose like an arrow, but naturally look where people look (in this case at the centre) and the spotlight illuminates what we want to bring attention to and darkness the area around him. This is helped by how well it uses all the visual and audio elements to direct the audience's attention. This is thanks to the guiding action and to the audience's cone of focus.
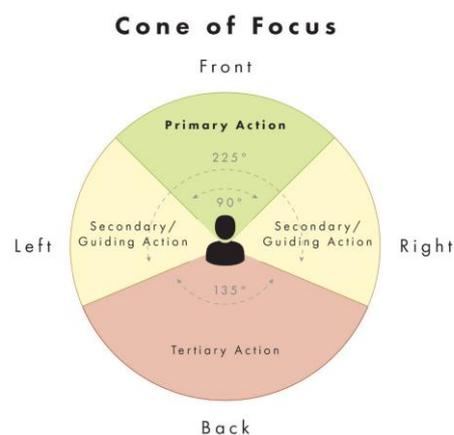

Fig 4: Uploadvr (2016) Cone of Focus.

However, since VR is a 360° experience, it is a frameless environment, so it is up to the director to suggest framing. "*Dramatic shifts in action, lighting, and/or sound within that space will pull the user's attention in that direction*." (Dwight, 2016). As seen in the above graphic (Figure 4) from Logan Dwight's article, Film and TV and Theatre are usually/ typically in an audience's cone of

Focus. In a 360° stage/ environment, more techniques are needed to direct an audience to look beyond the initial 90° in front of them.

One of VR's strengths is that it has been regarded as an Empathy Engine/machine. Although, while that term has faced backlash and accused of being a buzzword (Robertson, 2017), however there is plenty of evidence of the medium getting a more unique empathetic reaction out of the audience compared to other mediums by creating Presence: "*It's the mind and body trick when the viewer makes a Virtual experience a real one.*" (Julie Krohner, 2017). For example, "*Richie's Plank experience*" (TOAST VR PTY. LTD, 2016) is regarded as a simple but effective VR experience, using the goggles, sound, some space for movement and (optional but recommended) a plank of wood. The experience puts users' fear of heights to the test. A high majority of its users have reported that the experience felt like a real one, with the VR experience tricking them into thinking and recalling it as a real one.

However, a known obstacle/weakness is the tech itself, with a majority of VR devices are not made equally. Different VR headsets require more set up time like the HTC VIVE which requires sensors in the room, while the Oculus does not, but then there is the Google Box which is cheaper than the previously mentioned examples, but it doesn't have controllers and is just a phone in an easily produced headset for the user's phone. These various headsets offer a range of interactivity, the HTC VIVE and Oculus providing some movement and controls while Gogglebox does not. Furthermore, there is camera quality if the VR experience requires current not widely adopted as a household device, so fewer potential audiences, with YouTube's 3D camera compatibility being the most accessible.

It is important to keep in mind who your audience is and what experience do you want to give them. Are the audience a *Passive* or a *Participant*? If it is a passive experience it follows more of what Anthony Geffen describes as an "*On the Rails Experience*" (Anthony Geffen, 2016) much like the medium of Film/tv and theatre where the audience watches the events unfold before them with no input on the story.

Fig. 4: Legendary Pictures (2015) *Warcraft: SKIES OF AZEROTH.*

In the early days of VR being a publicly accessible experience in 2015, VR was used as an extension of other work rather making them as original content at first. VR was used as a marketing gimmick, these can be seen in the earlier examples, in "*Warcraft: SKIES OF AZEROTH*" (2015) which was posted onto YouTube when it implemented it's VR capability in 2015. While it was recommended to watch this on your phone, it was possible to view this on a standard YouTube page, the viewer having to drag the screen to look around in the 3D environment. However, as one of the first publicly released VR experiences that allowed users the unique experience of flying over Storm wind on the back of the mythic gryphon, it is a very On-rails experience as it only required the viewer to look around. Furthermore, since there was little story or key points of interest that the audiences are directed to look at, they are left to their freedom to look around at their own leisure.

Fig. 5: Warner Bros. Entertainment (2017) *The Lego Batman Movie | Batmersive VR Experience*.

Of course, creators have learned since then, as seen in "*The Lego Batman Movie | Batmersive VR Experience*" (2017) which utilises the VR medium and creates a presence by having a Batman interact and enter the audience space directly and encouraging them to look around by guiding their attention through movement, pointing or verbal suggestions.

Fig. 6: ACM Digital Library (2020) Disney's "*Myth: A Frozen Tale*".

"*Myth: A Frozen Tale*" (Gibson, 2019) utilizes the VR medium to its potential and tells a story, using the environment changes to the various elements in which a tale is being recounted to the viewer. The tale in question is about the main spirit characters. The story is told around them but to get that idea of immersion, they have the various spirits approach the viewer and give a sense of scale. For example, the Earth spirit is a giant rock creature, and the audience has to look up to see its face, giving the audience an immense sense of scale that theatre or film could not provide. They have each spirit brightly colour coded, so they are easy to spot and follow in the environment. At the same time, the audience is narrated the story since the experience is under the guise of a bedtime story, as if the child has closed their eyes to imagine what is being described to them.

However, while the previous examples (and a majority) VR experiences were extensions of other products, there were a handful of original stories. In 2015 when YouTube implemented its VR capability, created the Google Spotlight Stories studio to create original short content. These early shorts were "*360° Google Spotlight Stories: Pearl*" (2016) and "*360° Google Spotlight Stories: Help*" (2016).

Fig .7: Google Spotlight Stories (2016) *360° Google Spotlight Stories: Pearl.*

"*Pearl*" (2016) is an excellent example of demonstrating guiding attention (in a passive experience) through the orientation of objects, following people's eyes, a common film language/ technique to guide an audience's attention. However, "*Pearl*" (2016) remains in a comfortable field of view, with all the action taking place in the front and back seats, not encouraging the audience to look around 360° but instead at the 180° in front of them.

Fig. 8: Google Spotlight Stories (2016) *360° Google Spotlight Stories: Help.*

"Help" (2016) is a unique VR experience that implants real life actors into a 3D environment. This VR short illustrates the challenges of using live action actors and cameras, since it depends a lot on the pixel quality of the camera. If the image is low quality or if the people are out of focus, it would start to strain and hurt the audience's eyes, it more forces the audience to look at a certain thing rather than encouraging the audience to look. Furthermore, the use of live action actors in a 3D environment that is not completely photorealistic, it creates an unfortunate case of uncanny valley and further disconnects them from the story happening around them.

Fig.9: VR Scout (2019) Disney's "Cycles".

Jeff Gipson created an original VR experience for a passive audience in the VR short animation "*Cycles*" (Gibson, 2018). Much like "*Myth: A Frozen Tale*", the story unfolds around the viewer, following the characters and story counter clockwise in an open plan house (Figure 9). In a way, it addresses the issues that the previously mentioned "*Pearl*" (2016) which was that it utilizes the whole 360 environment. His intended goal was for the audience to have the same experience as character in the short "*They get into this space and get a sense of it and then the story unravels around them."* (Gipson, 2020), since it revealed at the end that the audience is watching from a character's perspective, recalling/ remembering the events of the home, from when they first moved in to when they finally have to move out.

Another popular passive VR experience are the ones for Education and Workplace. These experiences are more of a teaching tool, rather than one that plays off the audience's empathy. For example, it would present the object of interest, be it a piece of equipment or a dinosaur, and there would be a

narration giving facts or instructions about the subject. With the main goal of becoming a strong example of a passive experience.

However, when the VR experience calls upon the audience to interact with the experience, the approach to storytelling resembles the approach needed when designing a story for a video game. Creating a story for a video game can come in various styles, depending on the type of game, but as Christ Marx puts it, they generally come in two different forms. They are either material that is added for background flavour that does not interact with the gameplay, or it is interwoven with the structure and gameplay. If it's the latter, it can be further broken down into a classic 3 act structure. Act 1: Set Up (Exposition), Act 2: Conflict (Complications) and Act 3: Resolution. This 3-act structure can apply to various stages of the game, be it the overall story structure of the game, the structure of each level, and the structure of each encounter.

❏   Act 1: *setup (exposition)*   ❏   Act 2: *conflict (complications)*   ❏   Act 3: *resolution*

Fig. 10: Valve Corporation (2020) "Half-Life: Alyx" Chapter 7: Jeff.

"Half-Life: Alyx" (Valve Corporation, 2020) is a VR game that is an excellent example of this 3-act structure, with the overarching story interwoven into the game and in its individual levels/chapters. In Chapter 7, the game has the player in an abandoned distillery trapped with a blind Monster "Jeff" who, despite being blind, has a heightened sense of hearing, we have our Act 1: Set up. Act 2: conflict, quickly follows with the player having to navigate the distillery and avoid Jeff. Then we have Act 3: Resolution, where the player is able to deal with Jeff and progress to the next level/chapter. This is when the VR capabilities really start to show their strengths, especially during the 2nd Act of the chapter which takes up the majority of the level. With the set up establishing the location as a distillery and that Jeff is blind, the player is surrounded by various bottles which they use to distract Jeff. Unlike a traditional game where the player has to press a button to throw an object, the VR controllers have the players perform a familiar throwing motion recognition, reaction and agency.

Fig. 11: VR Focus (2016) Schell Games *I Expect you to Die.*

However, while VR games like Half Life Alyx encourages a lot of player movement as well as simulate walking, another popular type of VR game are escape rooms where the player can be seated.

A successful escape room game is "*I Expect you to Die*" (Schell Games, 2016), in which the story is interwoven and progresses with the gameplay and puzzles. Following simple game design, they allow the player to explore the environment 360° for clues and the game will acknowledge their action and provide a response, allowing for player feedback that players look for in a game.

However, games targeted to a younger audience, with more of a focus on gameplay, the story material is background flavour and set. This can be seen in popular VR games such as "*Rec Room*" (Rec Room, 2016) and "*The PierHead Arcade*" (Mechabit, 2016) where there is a simple set up of location and theme, but the story is non-existent.

To bring it back to the start, when it comes to adapting this exercise's example "*Terra Terra*" (2020) into a VR experience, several options present themself. Firstly, it is an extension of an existing content, in this case a TV show, that is targeted to a younger audience. Additionally, to make sure that this product reaches out to as many of the targeted audience as possible, the VR experience will need to be available on most accessible VR devices/players as possible.

Fig.12: *Terra Terra*! (2020) Poster by A. Gurova

With those developments, the "Terra Terra" (2020) VR experience leans towards a more passive experience. Furthermore, with it's unique story and Sci-fi setting with a family friendly comedic tone, this gives the creative opportunity to have the experience set during the family's journey through the Solar system on their way to Earth, allowing the audience to have both an educational but entertaining experience. For example, the audience can watch the family have comedic interactions, a roller coaster experience as the family dodges asteroids, and education as they fly past notable planets, and the characters can deliver facts about them. For example, "*Mars might be red but it's actually really cold, it's average temperature is -63°C, so cold that water would freeze there*" (Franklin et al. 2020).

In conclusion, by deconstructing various VR experiences from the last few years of its rapid evolution as a medium, we can see its various strengths and weaknesses and how to make it an effective storytelling tool. That it is important to recognise who your target audience is and how much you

want them to interact with the story, as passive or active agents. Furthermore, it is important to guide an audience's attention naturally through various visual or audible techniques to not only utilize the VR's immersive capabilities as well as provide them with enough engagement and acknowledgement that they have a presence. As seen with our case study example of "*Terra Terra*"(2020), by recognizing the audience, the experience we want to provide for them and utilizing the VR's 360° capabilities, creating a story for VR has become easier when knowing the possible building blocks.

Bibliography

Bonnington, C. (2015) You Can Now Watch and Upload 360-Degree Videos on YouTube. Available at:https://www.wired.com/2015/03/youtube-360-degree-video/ [Accessed 16 August 2020].

- Dwight, L. (2016) These VR Film Tips Show How To Direct Audience. Available at: https://uploadvr.com/vr-film-tips-guiding-attention/ [Accessed 16 August 2020]

- Franklin et al. (2020) Terra Terra! TV series

- Hutcheon, L. (2004). On the Art of Adaptation. *Daedalus: On Happiness*, 113(2), 108-11. Available from: https://www.jstor.org/stable/20027920?seq=1#metadata_info_tab_contents [Accessed 15 August 2020].

- Gauthier, J. (2013) Building Interactive Worlds In 3D: Virtual Sets And Pre-Visualization For Games, Film & The Web . Abingdon-on-Thames: Taylor & Francis.

- Gibson, J. (2018) *Cycles*. [vr short film] United States: Walt Disney Pictures.

- Gibson, J. (2019) *Myth: A Frozen Tale*. [vr short film] United States: Walt Disney Pictures.

- Google Spotlight Stories (2016) *360° Google Spotlight Stories: Help.* [VR video] Available at: https://www.youtube.com/watch?v=G-XZhKqQAHU&ab_channel=GoogleSpotlightStories [Accessed 08 August 2020].

- Google Spotlight Stories (2016) *360° Google Spotlight Stories: Pearl.* [VR video] Available at: https://www.youtube.com/watch?v=WqCH4DNQBUA&t=166s&ab_channel=GoogleSpotlightStories [Accessed 12 October 2019].

- Legendary Pictures (2015) *Warcraft: SKIES OF AZEROTH.* [VR video] Available at: https://www.youtube.com/watch?v=K_J8k43gUhY&ab_channel=Legendary [Accessed 18 July 2015].

- Marx, C. (2007) Writing For Animation, Comics And Games . Oxford: Focal Press.

- McLuhan, M. (2001) *Understanding Media: The Extensions Of Man.* 2nd ed. London: Routledge.

- Mechabit Ltd. (2016) Pierhead Arcade. [VR game] Liverpool, UK: Archiact. [Accessed 12 April 2020].

- Tedx Talks, 2017. VR: How the future of storytelling will change us | Julie Krohner | TEDxCambridgeUniversity. [video] Available at:

https://www.youtube.com/watch?v=OlIlmGjaVec&ab_channel=TEDxTalks [Accessed 14 October].

- Rec Room Inc. (2016) Rec Room. [VR game] Seattle, USA: Rec Room Inc. [Accessed 16 June 2020].

- Robertson, A.. (2017) VR was sold as an 'empathy machine' — but some artists are getting sick of it. Audience Available at: https://www.theverge.com/2017/5/3/15524404/tribeca-film-festival-2017-vr-empathy-machine-backlash [Accessed 12 August 2020]

- Schell Games. (2016) I Expect You to Die. [VR game] Pittsburgh, USA: Schell Games. [Accessed 29 October 2017].

- Tedx Talks, 2016. Storytelling in virtual reality | Anthony Geffen | TEDxLondon. [video] Available at: https://www.youtube.com/watch?v=TOtTIWBrtJI&feature=youtu.be&ab_channel=TEDxTalks [Accessed 14 October].

- Theater Mania (2017) Javier Muñoz stars in Hamilton on Broadway.© Joan Marcus

- TOAST VR PTY. LTD. (2016) Richie's Plank Experience. [VR game]Burleigh Heads, Australia: TOAST VR PTY. LTD. [Accessed 03 April 2020].

- VR Scout. (2019) Disney's "Cycles" . [image] Available at: https://vrscout.com/news/disneys-cycles-emotional-vr-film/# [Accessed 10 September 2020].

- Warner Bros. Entertainment (2017) *The Lego Batman Movie | Batmersive VR Experience.* [VR video] Available at: https://www.youtube.com/watch?v=k8vVrr4Q9VA&ab_channel=WarnerBros.Entertainment [Accessed 18 august 2020].

- Valve Corporation. (2020) Half-Life Alyx. [VR game] Bellevue, USA: Valve Corporation. [Accessed 03 April 2020].