VR Storytelling?

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Abstract. Virtual Reality, now a maturing media platform, allows us a considered or more sophisticated understanding of its inherent storytelling mechanisms. We have become trapped in exploiting a language developed through the remedial journey from oral storytelling, to theatre, to cinema. Provocatively, we might explore this paradigm break in audiovisual storytelling, moving (or returning) from the framed to the frameless image, and although traditional media narrative may have provided a starting point for exploiting this 'new' spatial medium, the reflective engagement of photography, painting and architecture might be more fruitful? Where viewers are free to interpret and engage with the piece/space at their own pace and in their own way, and in real time. VR can take this concept further, allowing viewers to be 'present' within the artwork and explore, to have total freedom and control of their gaze, offering the potential for a more intimate and reflective experience.

Keywords: Virtual reality, Storytelling, Gaming, Embodiment.

1 Introduction

Through a close analysis of key features of VR and its relationship to visual art forms (theory and practice), this thesis explores how VR's immersive qualities, its focus on embodied presence, and its emphasis on creating spatial experiences, position it as a medium that builds on the traditions of photography, painting and game worlds, rather than cinema with its reliance on the frame and the edit, to create the illusion of a continuous narrative. VR should be non-linear, exploit its unique properties, where we are situated 'physically' and spiritually within the 'story' space, providing a perceptively and psychologically real experience, to have affect. There has been a tendency, even sometimes a dogma that accepts that each storytelling medium is a remediation of prior forms. This is demonstrated when we examine theatre to cinema, or radio to television, or the codex (especially the scroll) to the internet. We tend to see as 'common sense', notions of Manovich's 'Cultural Interfaces' to provide useful threads in the development of a new language [1].

However, though virtual reality (VR) is certainly a part of the process where each new media technology seeks to further immersion; it does not so neatly utilize previous cultural forms, that might afford us a head start in defining its language. VR storytelling is an untidy mash-up of many previous forms, along with some unique affordances we are coming to understand, and exploit.

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2 Methodology

This paper will discuss the theory and practice surrounding recent key examples of VR storytelling and reflect on how this genre has developed, lessons learned and possibilities going forward. It will confine itself to the genre of immersive storytelling as experienced through a headset, from the earlier, and very limited, Google Cardboard, to current apparatus. The potential audience remains quite niche; accessibility largely confined to those that have the desire and budget to own a Meta Quest, though sales of all these headsets has now passed 20 million units according to Heath [2]. As an aside, though the Quest might exist only to serve Meta's desire to elicit hoards to join the 'Metaverse', there is no place here to investigate the; social, commercial, private, cultural or surveillance implications of such a space; though we might speculate as to whether the unique properties of VR for storytelling, might afford us some insight here.

3 Result

'So here's what's special about VR. In all other mediums, your consciousness interprets the medium. In VR, your consciousness is the medium. […] It took this medium (cinema) decades to figure out its preferred language of storytelling, in the form of a feature film. In VR today, we're more learning grammar than writing language.' Milk, C. cited by Syed [3].

That cinema managed to generate an illusion of narrative through the 'Fordism', Manovich [1] states of a sequence of images is remarkable; as if some inherent, psychological language was being exploited, and all this through the constraints of the frame, a legacy of theatre with its proscenium arch, and the gaze of a neatly arranged, ticket purchasing audience. Though, the theatre audience would as likely be watching each other; an entertainment denied by the darkness imposed on us for the projected image to prosper. This darkness did however, happily afford an immersive focus on the idols on the screen, our empathy, crucial to effective storytelling, further enforced by the scriptwriter and the mise en scene. And, with advances such as Cinemascope and other wide screen formats, including the now emerging 'Immersive Video' format from Apple, we witness continuous '… endeavours to extend or overcome the constraints of the film screen' [4].

VR does overcome the constraints of the screen, by eliminating it entirely. Therefore, it appears to be a part of the continuum that sees successive technologies work to enhance immersion, but there is a disconnect here in the remediation pathway, VR is not remediated cinema, or not exactly so. The eradication of the frame seems to have shifted the language of storytelling. VR is not cut to cut, or clip to clip; it is from experience to experience. Our immersion shifts beyond that of a voyeur, we experience presence, and sometimes we experience embodiment.

Whether we are immersed in a head turn or a walk around virtual environment, VR 'seeks to simulate, providing the audience with something of an experience that is linked in various ways to the experiences of others', [5] we are sometimes sold the notion of embodying another, of seeing through their eyes, that VR is, as Chris Milk

extolled back in 2015, 'the ultimate empathy machine' [6]. We sometimes need to remind (or pinch) ourselves that this is, a simulated experience that can seek to manufacture affect, or 'forced empathy'. Schlembach & Clewer [7] state with all the obvious, moral, ethical and ideological considerations such a term defines.

I'm reminded here of my first discomforting, Google Cardboard experience of, 'eye contact' in 360VR with a child refugee. I averted my gaze. Here I am not embodying another, I am provided, by the absence of frame, the plausible illusion of presence with others; the fourth wall has disappeared; I am being asked, what am 'I' going to do about this tragedy? This was a powerful and unique quality of the 'empathy machine', and so charities utilised these affective encounters through this format, to effect increased donations to their cause. Creating 'virtuous virtual reality' Nakamura, cited by Schlembach & Clewer [7] for the raising of charitable funds is perhaps morally defendable? However, the use of the same mechanics of 'forced empathy' to sell shoes, is not; though probably effective, the infamous TOMS example is noted (https://www.youtube.com/watch?v=j z5vQs9iXCs) and concerns surrounding this new form of storytelling were raised, 'If we conceive of the production of affective encounters as attempts to by-pass cognitive faculties, discursive practices or political deliberation, such an effort has a distinctly manipulative side to it.' as mentioned by Schlembach & Clewer [7].

These early affective encounters could sometimes be described as immersive journalism, where the intent is to create impact, to change policy. The Guardian's early adventures in publishing 360 VR experiences such as the celebrated, 6×9: A Virtual Experience of Solitary Confinement. The Mill [8] is a clear example; they wanted to elicit conversations that might lead to an end to the practice of prolonged solitary confinement in the USA prison system. However, though this is a thoughtfully designed experience, its affect was for me, less compelling. I was not emotionally invested to share any outrage. Embodiment was implied but less effective or indeed achievable in a Google Cardboard environment.

However, any moral panic surrounding VR's ability to force our primeval selves to cry, should be tempered with our acceptance of cinema's equally manipulative modes of representation; that ensure fictional tragedies become, for the audience, something like real experience. Indeed, storytelling in all forms, and in all cultures, have entertained through manipulated affective encounters. Whether VR's mediated presence is more profound than these is mute; as Jaron Lanier suggests, we are delighted by the magician; 'though you have requested to be fooled, at no stage are you likely to think the trick is 'real magic' because the 'fooling' is the mutually agreed output. Thus the 'V' in VR will always be the most important letter according to Lanier [9]. The language first arrived at in the Google Cardboard era, that is, the use of a non-fiction subject matter and the trick of 'forced empathy', has been sustained to a great extent in more contemporary examples of the form.

On the Morning You Wake (to The End of the World), Bret et al., [10] there are a series of experiences or voices expressing personal feelings in response to an imminent nuclear attack on Hawaii in 2018 (false alarm). Some found the use of some of the visuals a distraction. "The affectlessness of the smooth, unrealistic figures in their vir-

tual landscape seemed to dilute the deep, warm humanity of the poem and the eyewitness testimonies– and detach you from the horror rather than immerse you further.", as stated in Mangan [11].

I found some of the more abstract images encouraged me to focus on the narration, but it probably should have been asked whether VR was the best medium for this story when Narration is utilised as the conveyor of meaning, the visuals seem to be there to promote or facilitate immersion, but perhaps it can only distract, when it is the voice that has the sole responsibility in relating the story and the story spaces seem less well considered beyond a general aesthetic.

Games define our context, they place us within 'spatial stories' they 'design worlds and sculpt spaces […] more interested in issues of level design than plotting or character motivation' [12]. Therefore, we should understand the language of spaces? 'Your mind changes/adapts due to the environment that you interact with', see Greenfield [13].

Fig. 1. Gothic Cathedral (Source: https://www.askingforwonder.com/tag/cs-lewis/)

Architecture can promote a transcendental experience in the user; in a Gothic Cathedral (Figure 1), a construct that places god's kingdom on earth; a 'mystical vision of harmony that divine reason has established throughout the Cosmos', according to Von Simson [14]. A simulated experience that can by-pass our cognitive faculties, with stone and glass.

Fig. 2. Palazzo Massimo alle Terme. Frescos de la Villa de Livia (Source: https://commons.wikimedia.org/wiki/File:Livia_Prima_Porta_10.JPG)

Earlier architectural constructs such as Palazzo Massimo alle Terme. Frescos de la Villa de Livia (Figure 2) 'the intention was to create a virtual refuge in the form of a peaceful garden' [4]. Grau [4] asserts that; '…virtual reality forms part of the core of the relationship of humans to images'. That we can be so compellingly transposed to another place with associated emotional and cognitive states.

A later augmentation of architecture with paint is the trompe l'oeil of the Sant'Ignazio Church in Rome painted by Andrea Pozzo (Figure 3). Bolter et al. [15] state that this gives the illusion that the cathedral vaults continue up to heaven and, 'locates the viewer in a hybrid space that is part physical and part virtual'.

Fig. 3. Sant 'Ignazio Church in Rome. Andrea Pozzo, 1642-1709 (Source: https://en.m.wikipedia.org/wiki/File:Triumph_St_Ignatius_Pozzo.jpg)

The 'Panorama' was the work of Robert Barker. The audience could view a painted 360 scene from a raised platform where they could feel presence in far-away places such as New Zealand or in the midst of a battlefield, such as Waterloo. The immersion could be extended with the use of atmospheric smoke and/or sound effects. The illustration (fig. 4) shows an early panorama in London's Leicester Square, where the paying audience experienced a view, much nearer to home, from the top of St. Paul's Cathedral.

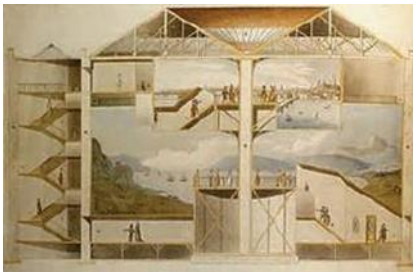

Fig. 4. Leicester Square Panorama for Robert Barker by Robert Mitchell, 1801, building from 1792. (Source: https://spaceframed.blogspot.com/2015/01/disseminating-architecture-week-2.html)

These are all story spaces. They demonstrate that being present in another context changes how we think, what we believe. Though sometimes the inclusion of objects and a character that we can transpose, or offer our own experiences and contexts, to perceive their narrative cannot be overlooked. The mise en scene where we construct the view, that is, the mechanical and objective that then define the human and subjective, is part of all image making from painting to photography, and cinema. The carefully constructed tableaux of Gregory Crewdson offer an uncanny version of this (Figure 5).

Fig. 5. The Den, from Cathedral of the Pines. (Photograph: Gregory Crewdson, 2017)

4 Discussion

The above examples are shown to help illustrate how spaces interact with audience narrative and emotional context. Narration, as with the On the Morning You Wake (to The End of the World) is also key to, Goliath: Playing with Reality (2021) It concerns schizophrenia and uses multiple voices as an additional narrative strand (along with fractured images) that aim to immerse the user; to embody, or experience what it is to be schizophrenic. Tilda Swinton [16], who narrates this experience stated, 'For anybody inclined to question the powerfully boundary-less capacities of VR to inspire and encourage empathy, inclusion, fellowship and transformation, GOLIATH might well be the original game changer'.

Here the user can click to choose which voice, and Goliath is described as a gaming experience. Even if such interactions may offer notions of empathy (with the avatar) through action, 'Identification through action has a special kind of hold', stated by Turkle [17]. Ultimately, in traditional games we do not really care for the characters we control; we 'do not care about her relationships, we don't care about her future' (Greenfield) when saving the princess in Mario. However, if we are the avatar, and we feel presence in the game- world, then this no doubt changes our levels of emotional engagement.

VR headsets are expensive and 'developers know exactly what certain communities (above all, gamers) want: a greater sense of presence and responsiveness through improved headsets and modes of interaction (controllers, hand gestures, and eye and body tracking)' [15]. Therefore, users often demand interactivity, and this is always problematic. It fractures the immersion we demand for affective storytelling. The structures

that video games might offer to storytelling in VR are fraught with a long debate that includes, Juul [18], Aarseth and others, concerning ludology vs. narrative. For the ludologists, narrative interferes with the 'gameness'; though Juul [18] concedes that 'Games may spawn narratives that a player can use to tell others of what went on in a game session'. This has been noted by game designers who in more narrative driven titles, such as 'Last of Us' (Naughty Dog) provide those moments of stillness for reflection, where the user can construct in their own minds after action/play levels, the narrative implied by any contexts given. That the player then leaves the game with a belief that a complex story has unfolded, might steer approaches of gamers then attempting to develop their own VR storytelling artefacts. It should be noted that the use of Unity or Unreal Engine have become ubiquitous in the creation of VR stories, and their inherent bias towards interaction/ collision, inevitably steers outcomes towards a certain structure, they are after all, game engines.

But if we bypass the collisions and jumps, the game engine additionally lets us explore the story space at our own pace, wandering, like the Flaneur. This might allow moments of reflection on the 'story' and ourselves within that space and in real time rather than after the event. 'Within gamer culture, this design choice (wandering) seemed to transform such games into something else, something that (perhaps) was not quite a "real game."' [19]. Further, it allows us to step aside from the usual game interactions, to force the user to a reflective space; 'wandering— of a character, a player, a story, a language, or any other aspect of a game - becomes a transcendent window into our mercurial desires and the convoluted, inefficient routes we take to try and reach them' [19].

This wandering, amongst other games, artists, and scholars, informed an MA Immersive Media student in the development of his own story world. Pradyumna developed an environment (Figure 6) in which the user could explore a story space, a room which held memories signified, and triggered by interacting with objects, notes and pictures. The story space represents a liminal, imagined stage between life and death; presenting an opportunity for us to reflect on our own lives. Though largely successful, there was a great deal of user testing to balance the ability to wander, play, interact, reflect, whilst absorbing the narration which conveyed key story elements.

Fig. 6. 'Afterlife' Pradyumna Panikker (2023)

A unique part of the VR experience, that is accessed in all examples to some extent is that of presence and of embodiment. In response to the VR installation, 'Treehugger:

Wawona' (2016) by Marshmallow Laser Feast. McMullan replied – 'As you touch the trunk of the enormous tree, you can feel the edges of a knot in the bark […] Then you begin to levitate, following the flow of water towards the canopy. Looking down is disorientating, so you cling to the physical surface of the tree", McMullan 2016 cited by Bolter [15]. Mel Slater has been investigating the psychological responses to virtual reality for a number of years [20].

'In VR, we know that the precipice is not there, or in the Virtual Milgram Obedience experiment, participants knew for sure that nothing real was happening, but they still tended to respond as if they were causing harm to the virtual Learner –in spite of the very simple rendering of the character representing the Learner, since presence is not even about realism', see Slater [20]. Embodiment is an extension of this in that you may experience being another; or experience virtual 'phantom limbs' but more compelling is that these experiences can change behaviours and beliefs; such as demonstrated in the paper, 'Putting yourself in the skin of a black avatar reduces implicit racial bias', as mentioned by Peck et al., [21].

Paula Llywarch, an MA Immersive Media student here at LJMU took this effect of VR on our cognitive processes, in the hope of changing the users behaviour with respect to the curious English tradition of mowing garden lawns obsessively. Paula's VR experience, 'Hidden World' (Figure 7), told the story of a Bee, which you embody as you fly around a garden. You see (in ultra violet) what the Bee sees, as you seek sanctuary in the wild uncut lawn, whilst avoiding peril in the mown area (you hear, as threat, the sound of a lawn mower).

Fig. 7. Hidden World, 2023 (Source: Paula Llywarch)

Is this a story or a game without rules; or reward? It is an experience that through 'wandering' around the garden, 'embodying' a Bee, the hope is that you will identify more closely with their needs and then modify your behaviour in the real world.

5 Conclusion

Exploring the evolution of immersive stories, as confined to the headset – now realistically confined further to the Meta Quest – we have moved from the hyperbole of the 'empathy machine' to now more sophisticated VR experiences, now often (possibly

erroneously) described as games; there remains a tension between the ludic user and the reflective consumption of stories. With current technology, a focused immersive experience has a comfort zone of perhaps 20 mins. Do the inherent storytelling mechanisms, or the language available to us in this genre, compensate for the character building, empathy, hero's journey and redemption, that the Hollywood Mode of Representation (Cinema) allows? No, VR storytelling engages by dispensing of the frame an ability to meaningfully interact whilst experiencing both presence and embodiment. This tool kit, with considered application, affords a shortcut to empathy and experience; we do not need the lengthy expositions that cinema demands.

Accessibility issues, combined with immersive stories being a solo experience, to ensure that this is currently a fairly niche platform when compared to other screen media. But their place as a potentially profound medium is being promoted in most film festivals, including, the Venice Immersive section of the 80th Venice International Film Festival which takes place on its very own, Venice Immersive Island! So are these artefacts films? No, there is no direct remediation of cinematic language here. No clip to clip, but instead, experience to experience. Are they games, to some extent yes, an audience seems to want to interact and the tools most often used to build these experiences are game engines. But successful immersion is determined by the careful balance of play and the time to reflect. However, games are sophisticated exploiters of space, which provide a context for play and/or a rich 'storyworld' that, as architecture and the augmentation of architecture have shown, can have a profound influence on our emotional selves.

Taking all these affordances of 'forced empathy', presence and embodiment, we may consider the ethical, individual, ideological and psychological implications to be worthy of some concern? Possibly, yet the stories told in this genre tend towards very human concerns, humanity at the edges of experience, and we should savour the opportunity to 'share' these experiences, whilst remember that, 'Your centre of experience persists even after the body changes and the rest of the world changes. Virtual reality peels away phenomena and reveals that consciousness remains and is real. Virtual reality is the technology that exposes you to yourself', as stated by Lanier [9].

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