University of Plymouth

PEARL **https://pearl.plymouth.ac.uk**

Faculty of Arts and Humanities School of Art, Design and Architecture

2023-03-27

Queer Psycho and the He Circus: Applying Queering, Magic, and More-than-Human Theories to Immersive Visual Story Worlds as an Antidote to Late Capitalism

Dare, E

https://pearl.plymouth.ac.uk/handle/10026.1/20729

10.1162/pres_a_00369
PRESENCE: Virtual and Augmented Reality
MIT Press

All content in PEARL is protected by copyright law. Author manuscripts are made available in accordance with publisher policies. Please cite only the published version using the details provided on the item record or document. In the absence of an open licence (e.g. Creative Commons), permissions for further reuse of content should be sought from the publisher or author.

Queer Psycho and the HE Circus: applying queering, magic and more-than-human theories to immersive visual story worlds as an antidote to late capitalism

Eleanor Dare and Dylan Yamada-Rice

Introduction

This article reports on two new frameworks for developing Immersive Visual Story (IVS) worlds. These frameworks are designed to challenge the development and theorising of IVS spaces. The first connects to Brechtian a-effect and Queering, and the second with of magic and more-than-human worlds. We start by exploring what these theories mean in relation to existing ideas about immersive visual storytelling generally. Then, in the second part of the article we illustrate how we applied these frameworks to the development of two IVS worlds which we created in our roles as academic-artists in pursuit of new forms of arts-based research. For Brechtian a-effect and Queering this relates to the development of a game called *Queer Psycho* built in Unity. Whilst in relation to magic and more-than-human worlds this is applied to explorations of neoliberal academic structures through world-building in the children's gaming platform Roblox- a space that became known as *HE Circus*.

These two practical examples enable discussion on how building IVS worlds can be used for synthesising thought in relation to theory, literature and, or personal experiences and thus become part of research processes. For us Arts Based Research represents a state of not knowing, in which for:

> virtually all artists, the search for the unknown outcome is not only welcome but provides a driving force within the creative process, as painter Paula Rego says: you are doing it to find out what the result will be". Artists want to encounter, in their final work, something that does not feel known to them. If an observer finds an artist's outcome entirely predictable, very often it has not been so for the artist making the work.
>
> (Fisher & Fortnum, 2013, p. 70)

While Cahnmann-Taylor et al (2018) outline the difference between instrumental methods and the contingency of arts-based research:

> Our focus on scholartistry separates us from visual social science methodologies such as Photovoice or Photo Elicitation. We approach the arts as more generative and searching. In particular, the arts are more than capturing and rearranging semiotic symbols and signs. What we seek is a visceral encounter with raw materiality. Scholartists do not only *record* data; they also *make it*.
>
> (Cahnmann-Taylor et al, 2018, p.5)

As will be shown within *Queer Psycho*, the materiality of media culture is encountered, including Games Engines, with the IVS aiming to enable an explicit confrontation with the ways mediation encodes social meaning and both design affordances (matching perceptual cues) and *dissaffordances* (where actions are blocked or constrained) (Costanza-Chock, 2020, p.38/39). In relation to the IVS *HE Circus* it will be shown how both the development and use of the space aided synthesis of theory, literature and personal experience through the placement of premade assets that were chosen

and used based on ideas from magic and more-than-human worlds, and that this allowed exploration of factual research on neoliberal academic structures.

Combined we see the approaches we present in this article as critical to expanding the study and practice of aspects related to IVS, such as virtual presence, embodiment, and immersion. Additionally, to examining aspects of scenographic and specific interactive modalities in IVS. In doing so, we will also look beyond formal analysis, eschewing a modernist tradition which has minimal regard for context and networks of power, and instead, widen our analysis to incorporate aspects of the political and social structures of immersive technologies and their economies. Building on the work of Alston (2016) and Keogh & Nicolls (2019) we provide alternative structures for IVS development frameworks that are led by Game Engines such as Unity, Unreal and Roblox that arguably construct a particular set of subjectivities through their templates and menus, their models of subjects, their business models, spatialities, workflows, audio systems, rendering engines and modes of interaction, which Keogh and Nicoll (2019) describe as 'Circuits of cultural software'.

Secondly, we demonstrate how we apply this theory into practice through the development of IVS spaces that informs our work as lecturers, researchers and immersive storytellers. Together, we are formulating approaches to teaching and developing immersive storytelling which do not avoid the political economy of technology and games engines, but rather acknowledge and work *with*, and sometimes *against,* those forces and their ideologies. We hope that by offering our ideas here, others will share their approaches too.

Applying Queering, Magic and More-than-Human Theories to Immersive Story Worlds

In this section we outline two frameworks that were used in the making of two different immersive story worlds. These are (1) queering and (2) magic and more-than-human theories. Each was used to find new ways of constructing atypical immersive story worlds absent of the structures that currently dominant IVS development. These were then applied to two separate immersive story worlds created with two different gaming engines, to explore how immersive storytelling and world building can form part of academic processes of thinking and understanding a body of literature, which is usually undertaken by reading and writing.

Queer Presence

For Brecht (1964), empathy was constructed as the conventional focus of actor's efforts. Conventional actors, he wrote, devote their efforts so exclusively to bringing about this psychological operation that they may be said to see it as the principal aim of their art. Further, the technique which produces an 'A-effect is the exact opposite of that aiming at empathy' (Brecht, 1964, p. 136). In response to this orthodoxy Brecht evolved a number of approaches which broke the spell of empathetic acting and scenography, seeking to surface the political reality of audiences and wider workers. The focus of this section is an evaluation of the implications of Brechtian A-effect or *Verfremdungseffekt* (distancing effect) (Brecht, 1964) and what Author A argues is its logical extension, 'Queering', as a methodology for an alternative form of Immersive Visual Storytelling (IVS). Queering as Ahmed (2006), reminds us, is a spatialised construct, if we:

> …turn to the etymology of the word "queer," which comes from the Indo-European word "twist." Queer is, after all, a spatial term, which then gets translated into a sexual term, a term

> for a twisted sexuality that does not follow a "straight line," a sexuality that is bent and crooked.
>
> (Ahmed, 2006, p.43)

In Ahmed's terms:

> Sexuality itself can be considered a spatial formation not only in the sense that bodies inhabit sexual spaces (Bell and Valentine 1995), but also in the sense that bodies are sexualized through how they inhabit space. The body orientates itself in space, for instance, by differentiating between "left" and "right," "up" and "down," and "near" and "far," and this orientation is crucial to the sexualization of bodies. Phenomenology helps us to consider how sexuality involves ways of inhabiting and being inhabited by space.
>
> (Ahmed, 2006, p. 43)

But the term is also one that has been critiqued, it was described by Eve Kosofsky Sedgwick as "fraught" (Kosofsky Sedgwick, 1994, p. 9). Mel Y. Chen also addresses the difficulty of the term Queer. Chen writes of a word with 'so many social and personal histories of exclusion, violence, defiance, excitement…never can only denote; nor can it only connote; a part of its experimental force as a speech act is the way in which it dramatizes locutionary position itself" (Chen, 2012, pp. 64-65). It is important, therefore, to acknowledge that the term 'Queer' cannot be universalised or homogenised, and the privilege of using it cannot be occluded. For Author A, as a child, it was a term of abuse, often accompanied by violence. In *Queer Psycho*, the term is not used, Author A hopes, in a spirit of neoliberal individualism, but as an agential yet difficult term, articulating the

ideological entanglements of immersive visual storytelling. Queer and queering is positioned here as a course of action and a small methodology, a form of disorientation from dominant discourses of immersive storytelling.

After Ahmed, Lunn et al (2018) frame the disorientation of queerness as a process rather than an identity, in which:

> "Just as following a straight line provides access to certain "straight" objects, queer people are those who, because of their orientation, see the world slantwise and act out of line with others, which in turn allows different objects to come into view (107). Seeing orientation not as an identity but a process, Ahmed claims that reorientation takes work (101). It requires reinhabiting one's body and it affects what we can do and how we are perceived in what we do; it affects how we navigate public space (101). Queerness, as a process of reorientation, is not merely about one's sexual relation to others but one's relation to a heterosexually oriented world (102)"
>
> (Lunn et al, 2018, p. 22).

In addition to asking questions about the political economy of immersion and its relationship to Brechtian distancing and more contemporary Queering, XX approaches IVS research and practice by also examining their implications for scenography and interaction, proposing that they suggest an expanded understanding, entangled with constructs of immersive and platform economies. XX examines the role of visual technologies and 3D software such as Unity and their impact on the construct of visuality within IVS. Game Engines such as *Unity* and *Unreal* arguably construct a particular set of subjectivities through their templates and menus, their models of subjects, their

business models, spatialities, workflows, audio systems, rendering engines and modes of interaction, which Keogh and Nicoll describe as 'Circuits of cultural software' (Keogh & Nicoll, 2019). For Keogh and Nicoll:

> In the videogame development curriculum, the commercial game engine discursively strengthens an ideology of creative professionalism that 'is now understood in terms of entrepreneurism' and which reconfigures creative practice pedagogies (including those of the school) as 'the economization of imagination, the marketization of creativity' (McRobbie 2016: 760)
>
> (Keogh & Nicoll, 2019, p. 114)

Begging the question, what happens to social or epistemic justice within such a neoliberal framing, how (or indeed, *why*) should issues of human and environmental rights be subsumed or articulated into entrepreneurial ideologies?

Author A's work with immersive storytelling and XR proposes that Queering, and specifically, Ahmed's concept of Queer Phenomenology (Ahmed, 2006) offers alternatives to the canonical constructs of immersion, empathy and presence embedded in game engines and their productions. A queer phenomenological approach requires us to ask what we are immersed in, how are we immersed and who is the presumed 'immerse'? Author A questions our orientation in immersive visual story spaces, in light of Ahmed's contention that:

> Moments of disorientation are vital. They are bodily experiences that throw the world up or throw the body from its ground. Disorientation as a bodily feeling can be unsettling, and it

> can shatter one's sense of confidence in the ground or one's belief that the ground on which we reside can support the actions that make a life feel livable. Such a feeling of shattering, or of being shattered, might persist and become a crisis. Or the feeling itself might pass as the ground returns or as we return to the ground. The body might be reoriented if the hand that reaches out finds something to steady an action. Or the hand might reach out and find nothing and might grasp instead the indeterminacy of air. The body in losing its support might then be lost, undone, thrown.
>
> (Ahmed, 2006, p. 133)

There is a growing body of IVS work which deploys disorientation and Queering, including the work of XX as described in this chapter. While Alston's critique of immersive theatre challenges the underlying ideologies of participation and productivity, which XX applies to their digital work. The implication of queering for a specific IVS practice, that of developing an Open World immersive visual story based on and loosely deconstructing Alfred Hitchcock's *Psycho* are discussed later. Before that another alternative framework based on magic and more-than-human perspectives for theorising IVS is outlined.

Virtually unreal: more-than-human worlds in IVS

Story narratives can be based on fact or fiction or a combination of the two. This is nothing new. It might be more surprising to some readers to know that computing technologies like the stories told with them have benefitted from the blurring of fact and fiction. There is a history of connecting magic with technology that has long-benefitted technology companies and coders by creating mystic over how code and devices work (Svensson, 2022). Specifically, Svensson (2022) states this relies on

connecting the logic of mathematics with the mystic of magic which he calls "Mathemagics" to create a deliberate illusion around how devices work that leads users to imply magic is a key component in the working processes. Much of this writing focuses on 'the danger when tech users in front of the screen mystify what goes on behind it' (Svensson, 2022, p. 21). This also applies to child tech-users who have gaps in their knowledge about how digital sensors work so turn to magical thinking as a means of explanation (Main and Yamada-Rice, 2022), but in some instances the user/audience deliberately disengages with the logic in order to believe in the magic, as audience do with fictional narratives.

Relatedly, multimodal social semiotic theory (see e.g. Kress, 2010) shows how technology and communication practice are always interconnected, and importantly how these also connect with social and historic practices too. What this theory demonstrates is that if we want to know why certain communication practices, in this case immersive visual storytelling, come about then we cannot disconnect this interest from the technologies (digital or analogue) used to tell them. Further, that looking to wider social and cultural patterns will make it possible to understand communication use. In relation to this, our prior research with colleagues (Yamada-Rice et al, 2020) explored the extent to which immersive location-based VR narratives use unreal topics, and the historic and social reasons for this. We also gained insight from our project partners in Japan into how common magic techniques provided effective means for immersing audiences into virtual unreal experience. For example, Professor Narumi's research lab at the University of Tokyo exploits 'surprising and powerful cognitive errors…that push our cognitive processes to breaking point' (Kuhn, 2019. p.x) to deepen the feeling of immersion into virtual content. In one VR world created by his lab the user climbs a long spiral staircase. The feeling of height is intensified in the virtual world by the placement of metal stair rods onto the flat floor in the physical world. Stair rods are matched so that

the user steps on them at the same time as they see the edge of the step they are climbing in the virtual world. The combination of virtual image with physical haptic feedback deepens the sense of feeling of ascending or descending a staircase for the VR user (Nagao et al, 2017). In another VR world a user feels the physical shape of a table to be the same as the one being looked at in VR regardless of it being different (Matsumoto et al, 2017). Other cross-modal mechanics included the use of a slight electrocution around the vestibule of each ear to evoke the illusion of roller coaster movements in tandem with a VR roller coaster ride (Aoyama et al, 2015). Techniques like these are increasingly recognised by cognitive neuroscientists (Macknik et al, 2010) who are investigating visual as well as auditory and multisensory illusions in which Kim & Shams (2009), observe:

> …people's perceptions contradict the physical properties of the stimuli, have long been used by psychologists to study the mechanisms of sensory processing. Magicians use such sensory illusions in their tricks, but they also heavily use cognitive illusions.
>
> (Kim & Shams, 2009, n.p)

Such techniques, as with magic, illustratehow 'the brain constructs a subjective reality using assumptions based on relatively little and ambiguous information' (Quian Quiroga, 2016, p.390) because 'our perceptions work in large part by expectation. It takes less cognitive effort to make sense of the world using preconceived images' (Sheldrake, 2020, p.16).

Insight into how these cross-modal techniques can deepen immersion was particularly powerful in relation to how they could be used with fictional or fantastical story narratives to transport audiences into unreal environments that other media might not be so aptly able to because 'only a range of existence can be conveyed through linguistic means' (Campagna, 2018, p. 4). To understand why

frameworks of magic and more-than-human worlds might be important for contemporary development of immersive stories (as stated earlier) it is important to look to social and cultural paradigms. The philosophical writing of Campagna (2018) defines two universes, one rational (Technic) and the other irrational (Magic). He describes how rather than being binaries the spaces continually diverge and connect with one another to the point where magic provides the antidote for the harsh realities of the rational structures of our world.

The harsh realities of the contemporary rational world relate to the profound crisis of late capitalist structures (Fisher, 2009). As was stated earlier these same capitalist structures are also reflected in the systems, interfaces and assets in gaming software, that is they are replicated in the 'Circuits of cultural software' (Keogh & Nicoll, 2019) like assets and base templates. The previous section questioned these in relation to queer theory but the systems don't make sense to many types of audience. For example, Author B began researching and working with VR in relation to children and recalls how when trying to use an early version of the HTC ViVe tracker she was presented with guidelines on how it could be used to bring weapons into virtual worlds unsuitable for young audiences. This provides another example for how game engines for developing IVS have been designed in relation to a particular, age, gender or normative representation of humans.

Also drawing on multimodal social semiotic theory, Van Leeuwen (2013) writes that our play practices (though he is specifically talking about those of children) relate to wider social and political structures in the same way as they do for communication practices. Thus, play, like communication is historically, socially and politically situated. Therefore, if as Campagna (2018) suggests magic is the antidote to technic so too could the use of magic or other more-than-human narratives (e.g., Haraway, 2016; Sheldrake, 2020; Tsung, 2015) provide relief form the technic structures dominant in

IVS software and development. Further, a look at history shows how humans turn to magic and more-than-human worlds in times of crisis (not unlike our current crisis of Capital (Fisher, 2009)). An exhibition at the Wellcome Trust entitled 'Smoke and Mirrors: The psychology of Magic' displayed human desire to believe in other worlds is often heightened by big real-world issues, for example the show told of how in the UK during World Wars seances were popular becayuse people died young and families had a desire to reconnect with their dead loved ones. As documented in Yamada-Rice et al (2020) more recently, this occurred after 2011 when Japanese parents who had lost children in the tsunami used spiritual mediums to aid recovery of their bodies or talk with their off spring (Lloyd Parry, 2018). Campagna (2018) calls 'magic the therapeutic path of embracing a particular, alternative reality-system' (p.8). The above examples would seem to suggest humans particularly tune into this when 'logical' solutions do not provide an answer to the problems faced.

Intense crunch points in human-made political and social systems seem to increase audiences' interest in fictional worlds and for constructing knowledge in irrational ways. This can be seen in a surge of interest in how other organisms assert control over humans in ways where the full extent is unknown, i.e., in relation to fungi (Tsing, 2015; Sheldrake, 2020) or other species (Haraway, 2016). Later, we explore Author B's application of these theories into the creation of an IVS world in *Roblox*, as a means of making sense of her personal experiences in relation to the body of literature on neoliberal structures in academia. Before that we learn of how Author A applied Queer Presence to her IVS world *Queer Psycho*.

Queer Psycho

Queer Psycho, a work developed by Author A in early 2022, is an immersive exploratory narrative, a re-working or deconstruction of key scenes and tropes from Hitchcock's film of 1960. The work deploys Brechtian A-effect and Queering strategies to break the canonical patterns and subjectivities of immersive technology and cinema.

Figure 1: The 'ex-gay' Church with the Motel and House in the Distance

The open world of *Queer Psycho* is a form of exploratory narrative, a paradoxical variant of exo-theatre, in which players, who are henceforth referred to as 'player drivers' (this also differentiates them from non-player or 'AI' drivers), navigate a landscape of barren mountains, motels and roadside cafes, searching for their lost partner. The title, *Queer Psycho*, might suggest the idea that Hitchcock's original film was not queer, but watching the original film many times and analysing several papers about Psycho, including Duedenhoeffer's 'Elbows and Assholes: The Anal Work Ethic in Alfred Hitchcock's Psycho' (2014), Mariani (2019), Durgnat (2017) and not least Doty

(2000), supports the assertion that Psycho is already in some significant ways a queer or rather *queered* film. Queer is here taken to mean:

> **…**an identity that… that you're not living kind of along the set lines, the boundaries of heterosexuality or hetero patriarchy, so you maybe don't have the same goals of monogamy or marriage, or maybe even traditional ideas about family, but then it can also lead to a kind of perspective, and so you kind of from an academic perspective you might say you can use queerness as a critical perspective or as a methodology.
>
> (Lomas et al, 2020, p. 2)

For Doty, Queering is articulated as 'something apart from established gender and sexuality categories, not the result of vague or confused coding or positioning' (Doty, 2000, p. 117). For Lomas et al, immersion, and in particular VR are inherently queer:

> …because unlike, you know, a kind of film where the director has the… the full capacity to… to hone a shot, and put shots in order, and make meaning for the audience really directly, once you put someone into a VR world, whether that's a just a 360 video where they can look in any direction they want' adding 'or whether it's you're creating a full kind of games engine experience that the audience can move through, you… you automatically have to release a lot of your control of how the audience take in your work, if you wanted to make that experience more queer, or… or like that was the point of the experience that part of relinquishing that control to have the audience make their own meaning inside the work, that is like a queer method in and of itself.
>
> (Lomas et al, 2020, p. 3)

With these assertions in mind, *Queer Psycho* represents a by practice investigation of subjective presence and embodiment in IVS, in which Author A proposes that queering and arts-based research as applied to IVS can offer developers new methods for creating work, but also for research addressing immersive storytelling. This practice is also entangled with the onto-ethical implications of IVS and its applications for broader challenges of epistemic justice, of how a narrative experience is delivered through an immersive medium or process. *Queer Psycho* is underpinned by questions relating to arts-based research in IVS, for example, does the medium, system, process and spatiality of immersion (which is far more than a 'medium' alone) inherently require a different set of registers and articulation from other storytelling approaches?

In Queering the space of IVS is an inherent instability and contingency, which is also in keeping with an arts-based research methodology, for as Caffyn writes, 'Queer space is no sooner built than it disappears: folded up and put away; ghettoized; annihilated by violence; absorbed by the vast and overwhelming silence of heteronormative thinking' (Caffyn, 2015, p. 1970). For Caffyn, and for many of us, being Queer 'involves continual acts of disclosure punctuated by spaces in which we disappear' (Caffyn, 2015, p. 2030). Such disappearances and moments of visibility and agency are a feature of *Queer Psycho*, in which the culling effect of Unity (designed to make for efficient use of computation by hiding that which is out of view to players) surfaces the materiality of vision and existence for many Queer communities.

Beyond metaphor, the spaces in *Queer Psycho* are subject to sudden closure or sudden mobility, depending on the patterns of interaction player-drivers negotiate. When Norma the 'ex-gay' motel receptionist gives player-drivers a business card inviting them to the conversion church, a previously

hidden section of the game opens, and a new branch of the narrative is available, should player-drivers notice the disappearance of no entry signs and barriers. Driving down to the 'ex-gay' church reveals more 'clues' about the disappearance of several queer characters. Despite the presence of such (orthodox) plot features, the landscape and open world of *Queer Psycho* is conducive to contingent exploration and rule breaking, player-drivers can leave the road and explore even to the point of dropping 'off the edge' of the 3D terrain. Such contingency echoes the arts-based research underpinning the project, as explained in the next section.

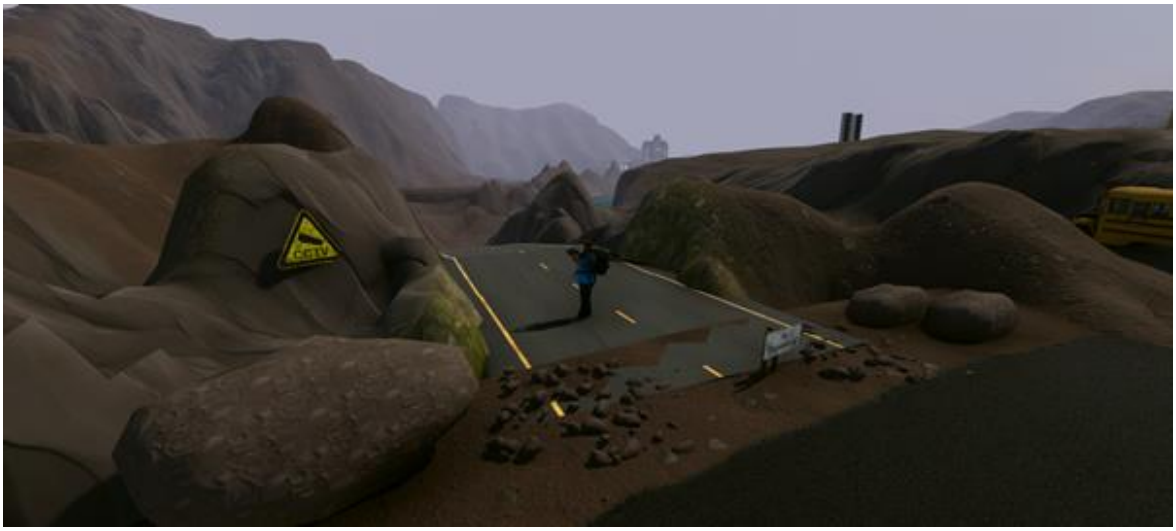

Figure 2: A Blocked Road Leads to the Warehouse where Missing Queer Characters are being Held

Queer Psycho is part game, part cinematic experience, part interactive narrative, it is not straight forward to define, but might come under Aarseth's definition of an ergodic text (Aarseth, 1997), in the wider sense of 'text' beyond written words. The word *ergodic* is a combination of the Greek words for *work* and *path*, Aarseth uses it to define texts in which the reader must work to find a path, in which 'nontrivial effort is required to allow the reader to traverse the text' (Aarseth, 1997, p. 1-2).

In *Queer Psycho* the effort is one of driving and noticing, but also of exegesis on the part of player-drivers, for whom the plot is never fully revealed in explicit terms. IVS, like immersive theatre are elements of the experience economy, as Alston writes:

> …along with theme parks, themed restaurants, experiential marketing, and so on". Like immersive theatre, IVS is often "preoccupied with the provision of stimulating and memorable experiences, and an objectification of audience experiences according to a logic that chimes with the commodification of experience elsewhere in the experience economy.
>
> (Alston, 2016, p. 28-29)

The increasing turn to *Unreal Engine* by courses and students (anecdotally observed by XX) seems to be driven by an aspiration towards a particular type of realism. But it is important to question what realism means, and to reflect on Ranciere's observation that realism 'claims to be that sane attitude of mind that sticks to observable realities. It is in fact something quite different: it is the police logic of order, which asserts, in all circumstances, that it is only doing the only thing possible to do' (Ranciere, 1995, p. 132). At the same time, as Alston observes, a construct of total immersion 'tends to be an important ambition in the making of immersive theatre' (ibid). Alston's book is useful in work beyond theatre, and the construct of total immersion a familiar one in XR and other immersive work. Alston's book addresses:

> … a series of connections between the modes of production and productivity that audiences are expected to subscribe to in immersive performances, and those that subjects are expected to subscribe to beyond the supposedly 'total' boundaries of an other-worldly world – particularly with regards to a neoliberal scheme of production that has become

> instituted in systems of governance, and which risks imposition as an ultimate dimension of value and meaning for citizens, workers and leisure-seekers who have to deal with its entrenchment.
>
> (Alston, 2016, p. 29)

Author A notes with a degree of unease the extent to which a form of emotional labour (Hochschild, 1983) is entangled with some educational projects deploying IVS, such as Punchdrunk's (to name the most famous) 'Our Home Story' and wider 'Enrichment' projects for schools. Emotional labour in this context is taken to mean the entanglement of affect with work, such that an emotional response is a requirement of that work. In the case of children engaging in such experiences, learning might be framed as their labour. The extraction takes place when an emotional response is necessary, such that it risks alienation (the superimposition of extrinsic emotional states) in the name of alignment to the needs of an organization. Such alienation has even been linked to poor health (see Qi et al, 2016; Grandey, 2003).

In staging *Queer Psycho*, Author A has used AI generated voices which do not display any fluctuations in emotion, the register of these voices is always evenly delivered, flat and controlled, aiming to distancing player-drivers from emotional labour of 'empathy' and presence. Instead, player-drivers are invited to bring a systemic analysis to bear upon *Queer Psycho*, to understand the underlying structural and systemic tensions of that world and to formulate interventions. Even the 'grand finale' chorus at the end of *Queer Psycho* is sang without inflection.

Figure 3: The Final Chorus of Lost Queer Characters

To highlight the presence of a neoliberalised immersive emotional economy *Queer Psycho* provides signposts, literal and metaphorical, pointing to the presence of immersive technologies. The presence of a fulfilment centre also points to the often-hidden labour or 'Ghost Work' (Gray & Suri, 2019) of digital interaction, in keeping with Alston (2016), who states: 'neoliberalism in a post-industrial era valorises immaterial forms of production and consumption that are based on the psychological and physiological capabilities of producers and consumers' (p. 24). The signposts are designed to prompt as Alston (2016) urges us to reflect 'on the terms and nature of an audience's productivity and its attachment to certain kinds of participatory freedom that may not be as free as they first appear' (p. 25). Splitting up the terrain of *Queer Psycho* and loading it when player-drivers approach a particular region, makes for both a more efficient management of the open world, but the visibility of the process also creates an explicit sense of scene change. Such scene changes become visible to the audience as the software catches up with the player-driver.

Distancing effect (Brechtian Verfremdungseffekt) is used in theatre as well as cinema, it acts to save audiences from the spell of immersion in a narrative, it:

> …involves the use of techniques designed to distance the audience from emotional involvement in the play through jolting reminders of the artificiality of the theatrical performance. This effect is used in theatre and cinema to prevent the audience from losing itself completely in the narrative, instead making it a conscious critical observer. The (actor) accomplishes this by directly addressing the audience, barring them from feeling empathy, (film) by interrupting the narrative, drawing attention to the filmmaking or theatrical process.
>
> (White & Meaden, 2020, n.p.)

Figure 4: Leaving the City in search of a Lost Partner

In this vein, automated vehicles are present within the scenography of *Queer Psycho*, exerting an uncanny force, following the player-driver and swerving to avoid collisions, their presence is partly surveillant, partly supernatural, alter egos shadowing the protagonist. These vehicles are also engaged

in a form of labour, albeit machine driven, one that taps into fantasies of robotic servitude critiqued by Benjamin (2019) and Adam (1998). These labouring, yet emotionally inexpressive elements are positioned in *Queer Psycho* as transgressive actors, countering the neoliberalism of much immersive discourse.

HE Circus

Like *Queer Psyhco*, *HE Circus* is also an exploratory immersive visual storytelling space. It was created by Author B to allow for exploration of the literature on the problematic neoliberal structures in academia (e.g. Silverio et al 2021; Maisuria & Helmes, 2020; Giroux, 2002). To do this Author B created an open-ended space for play and storytelling where she could invite other academics into the space for discussion- a kind of in-game reading group. It was hoped visitors to the space would witness cues in the choice, placement and scale of premade assets in the story world and be able to enact their own experiences on top of the interpretations of literature and personal experiences embedded in the design choices made by Author B. The initial intention was that in using the children's gaming engine *Roblox* to create the story world visitors to the space would feel "off-beat" which is a technique from magic in which the focus of the performance (or in this case the topic of the story world) is not immediately apparent to the audience (Fujii, 2020, p.25). This is created through the use of a secondary magic mechanism 'delay' (ibid) which in this case is the gap between the gaming aesthetics designed for children and the seriousness of the narrative critique about neoliberal structures in Higher Education. The method means the audience is already immersed in the topic (trick) before they have noticed it.

The remainder of this section focuses on a few of the "Easter eggs" within the story world and how they enabled Author B to explore personal experiences in relation to her reading of the literature in the field in relation to (1) Hierarchical Structures, (2) The Student Experience, (3) Pandemic University, and (4) the more-than-human antidote.

Hierarchical Structures

During the development phase an urban fox was added to the cityscape for no other reason than a love of these creatures. Later during gameplay in the space Author B's clothes-wearing academic fox avatar came face-to-face with the urban fox (Figure 5). This jogged thoughts of what the two would say to one another and in that moment the urban fox represented the academic feeling of lost freedom. The following part of the story emerged:

> *Running as fast as they can to get to the staff meeting fox comes face to face with an urban fox and remembers briefly what it was like to have agency.*

Figure 5: Academic Fox meets Urban Fox

Groot (1997) writes about changes to academic roles as a result of the marketisation of Universities from the 1980s onwards and the effects this has on their wellbeing:

> …this transformation was experienced by academics in terms of alienation, anxiety and accountability. Key features of that experience are loss of autonomy and control to the external power of competition and managerialism, insecurity and casualisation in employment and exposure to increasing judgemental scrutiny.
>
> (Groot, 1999, p. 130)

The 'judgemental scrutiny' is a product of the fact that 'in many institutions, bureaucrats now outnumber faculty' (Fleming, 2021, p. 14), most of which have been employed to ensure the smooth running of metrics measuring systems, and closely monitor academics. Many are thus 'hostile to

academic freedom and operate with very low thresholds of tolerance for critics of higher education policy and practice' (Morrish, 2020, p. 235). This is often at odds with lived experiences of being an academic. For example, Author B was reprimanded for responding to an email from management about lost pay for 2021-22 UCU Four Fights National Strike when like:

> …at Liverpool University, staff were informed they'd have to make up missed classes or face serious penalties. Pay had already been deducted during the strike, so this meant working for nothing.
>
> (Fleming, 2021, p. 9)

Staff were stopped from expressing concern about this by managers using legal terminology and preventing two-way discussion on the topic. The bigger elephant in the room was the jarring business-as-usual approach occurring simultaneously to difficult events going on in the wider world such as the current Russian-Ukraine war which makes the extreme pressure of academic metrics seem ludicrous. In responding to this personal experience in the story world Author B, started by replicating a scene from the war. She later changed the aggressor to a well-known science fiction character the AT-AT (Figure 6) and wrote:

> *Fox was worried about the arrival of the AT-AT in the city but discussion of politics was not allowed in their department. Management had declared it a form of self-harm that made colleagues feel uncomfortable. Instead, it was suggested that smiling could be a better way forward.*

Figure 6: An AT-AT in the city

The AT-AT could symbolise any number of big world events. Further, the use of the AT-AT relates to "misdirection" (Fujii, 2020) in so far as it draws the user-player into the scene through the use of a familiar character. It is only on closer inspection that it can be seen to represent other events in the world and the player is provoked to think about this by the positioning of the AT-AT close by the in-game University.

The Student Experience

Silverio et al (2021) write of the tension between the (commercial) academic and (paying) students with:

> …the sharp increase in tuition fees providing incoming students the bargaining power to both compare and complain about educative provision on factors such as the student experience…

(Silverio, 2021, p. 151)

Staff meetings are often filled with talk of the "student experience" including the UK's National Student Survey for mentioning it. No mention is ever made of the staff experience (try switching out the words student experience for staff experience the next time you hear it), who not only have to endure almost continuous quantities of unpaid overtime but are also prevented from critiquing the metrics and structures of the neoliberal university at all (Morrish, 2020). In many departmental staff meetings, it is now the norm for information to flow from top down without opportunities provided for teaching staff to respond to the request to complete tasks pushed upon them. This has fundamentally changed 'the relationship between teacher and student, and also academics and administrators' (Fleming, 2021, p.39).

While developing the *HE Circus* cityscape in *Roblox* with premade assets, Author B discovered the difficulty of finding "regular cars" in the assets model store. Instead, there was an abundance of super cars. In taking these assets and applying ideas from magic such as sleight of hand to draw attention to a specific element in this case a gold *Tesla* on top of a carpark (Figure 7) which was used to question the pseudo-factual direction of the student experience concept:

The University had found a new way to cast a shadow- the VC's Student Experience Carpark.

Figure 7: The student experience carpark

Pandemic University

> When the 2020 Coronavirus crisis unfolded, transferring classes online in a speedy manner was the most efficient way to retain student enrollments. For teach staff it means an inordinate amount of work, much of which was done in the evenings and weekends, carrying substantial hidden costs. Internet breaks down at home that's your personal problem, not the university's
>
> (Fleming, 2021, p.24.)

Building the academic fox avatar's home (Figure 8) was cathartic in that it allowed exploration of two years of stress to be played out. Building the *Zoom* backdrop bookshelf and depicting the deterioration of work life balance (Qudah & Deakin, 2019) the following words of the story came about:

Fox hated the bookshelves thay had moved to the living space to act as a zoom backdrop. They felt like a constant reminder that their life was full of the wrong type of reading.

Figure 8: Working from Home

Though academics were quick to respond to the need to move to teaching from home, adapting materials and buying technical equipment with personal finances, they had no say in the return to on-campus face-to-face teaching and were many times expected to work in unventilated classrooms. Further, if students refused to wear masks when it was mandatory it was up to the academics to act as gatekeepers and enquire if they were exempt something impossible to do with large class numbers.

After leaving the University, fox was struck by the ambulances lined up outside the local hospital, and was reminded that the end of pandemic restrictions was merely gaslighting. Fox wished they had work a mask at work (Figure 9).

Figure 9: What Pandemic?

The More-than-Human Antidote

> How bad is it now to work as an academic…? According to a recent YouGov survey of UK lecturers, 55 per cent said they felt exceptionally stressed and mentally unwell. Causes were said to be mandatory changes by management without consultation, unrealistic workloads and lack of time for proper research.
>
> (Fleming, 2021, p.26)

Perhaps the antidote is to consider better learn from other species: 'As you read these words, fungi are changing the way life happens' (Sheldrake, 2020, p. 3). In the hope of exploring radical ideas

from the field of more-than-human worlds as alternatives to neoliberal structures Author B added fungi into *HE Circus* (Figure 10) and wrote:

> *Fox was lightened by the appearance of fungi around the city.*

Figure 10: More-than-Human Possibilities

Later she read the following exploration of research that was concerned with the untapped possibilities of fungi for solving human problems:

> I knelt, feeling my way down the tree's trunk and along one of its roots into a mass of spongy debris where the finer roots matted into a thick red and brown tangle…my root vanished into the ground…I used my hands and a spoon to loosen the top layer of earth, and dug as gently as I could…after an hour, I had travelled about a metre. My root was now thinner

than string and had started to proliferate wildly...without this fungal web my tree would not exist. Without similar fungal webs no plant would exist anywhere. All life on land, including my won, depended on these networks.

(Sheldrake, 2020, p.1/2)

Author B returned to the developer area of *HE Circus* and travelled under the world she had created and looked up imagining the reverse of what Sheldrake was seeing in his search for fungi on roots (Figure 11).

Figure 11: The Underside

She was happy to discover that things looked different from down there and she was struck by the hope she feels as an artist and reminded of the quote in the introduction 'to feel something that does not feel known' (Fisher and Fortnum, 2013, p.70). With that comes hope that there are always other possibilities, ways of knowing and living.

Conclusion

This article has sought to show how by exploring Immersive Visual storytelling from an arts-based research approach, and using this to consider theories of queering, magic and more-than-human worlds we have been able to suggest two new possible frameworks for developing IVS. Like many artists that have gone before we see ourselves within:

> The history of art [which] is riddled with perceptual and conceptual games of trickery and subterfuge. Even pictorial perspectives is a system of illusion. The demand for truth, whether to materials or an idea, cannot be sustained, because art is essentially grounded in untruth, the fabrication of alternative versions of reality.
>
> (Malbert, 2009, p.6)

Whether you like the topics we have chosen for our own IVS worlds, the software used, the aesthetic or design choices made is irrelevant to the importance of our contribution to the field. Specifically, our methods explicit surfacing of the political economy of IVS development, and in doing so suggest a need for wider critique about tools and technologies put forth by companies and to unpack the biases and prejudices that sit within these systems. This includes decisions made on who the audience is and a favouring of certain storytelling structures (i.e., empathy and voice) and models (i.e., super cars). Indeed, for those of us in age groups which preceded *Unity* and *Unreal Engine* and often began programming immersive visual and sonic stories with *Flash, Java, Director* or *C++,* and may therefore be familiar with power struggles over the dominance of immersive software within education and the wider world. These power struggles continue, evident in both *Unity* and *Unreal Engine*, who have changed their business models, away from educational licenses to personal

licenses. The intention, as Keogh and Nicoll (2019) articulate it, is one of maintaining a relationship with developers for the duration of their working lives. This is a lofty ambition given the forces which might impact software; those of us who were attached to the workflow of *Flash* and *Director* saw their quite rapid demise once *iPads* and browsers stopped supporting their plug-ins and players, driven by *Apple's* desire to dominate the 'mobile web'. Keogh and Nicoll (2019) write of their concerns about digital monocultures: 'The further anxiety here is that if students only learn how to use *Unity*, then they may become perpetually stuck within Unity's ecosystem' (p.112). On the other hand, Keogh and Nicoll (ibid) speak of a developer student being marked down because their game looked like it had been made in *Unity*, even though that student, like Author A, was in some ways working with *Unity* as a medium specific material. If such investigations are marked down, it seems that criticality is not always welcomed within neoliberal contexts in which software and in particular, immersive economies are framed in solutionist, not to say Utopian terms.

We suggest thus that further critique is needed to make more inclusive development practices, but also to allow stories to be told in more diverse ways. In *Queer Psycho* time is non-linear and often folds back into itself, enabling player-drivers to drive 'backwards' into the narratives. It also deploys an array of features and processes, including: automated cars as uncanny agents, photographers shadowing the player-drivers, absurdly reminding them of the mediated, ideological nature of immersion, AI voices without the capacity for emotional inflexion, queer cut-scene angles and queer characters, references to film history such as the Arbogast Fulfillment Centre (Arbogast is a private detective in Hitchcock's Pyscho, searching for the missing character and transgressive thief, Marion Crane). In relation to *HE Circus* this drew on ideas fromm magic such as misdirection, sleight of hand and creating a disjoint between what the audience-user expects compared to what they are presented with. Along with more-than-human worlds for new perspectives.

The development of *Queer Psycho* and *HE Circus* was much closer to the process described by Kosofsky Sedgwick and Goldberg (2012) in which the 'making process entails "second-by second negotiations with the material properties of whatever we are working on, and the questions "What will it let us do?" and "What does it want to do?" are in constant three-way conversation with "What is it that we want to do?" (p. 83). Overall, the critical and creative strategies outlined in this article have the intention of surfacing the assumptions, affordances and *dissaffordances* of the technological and social ecology of IVS, to avert a critical vacuum in which immersion becomes a spell, arguably making us too beguiled to exert political and social agency.

References

Aarseth, E. J. (1997). *Cybertext: Perspectives on Ergodic Literature*, Baltimore: John Hopkins University Press.

Adam, A, (1998). *Artificial Knowing, Gender and the Thinking Machine*, London and New York: First Routledge.

Ahmed, A. (2006). *Queer Phenomenology: Orientation, objects and others*, Durham and London: Duke University Press.

Ahn, P., Himberg, J., & Young, D. R. (2014). 'IN FOCUS: Queer Approaches to Film, Television, and Digital Media'. *Cinema Journal*, *53*(2), 117–121.

Alston, A. (2016). *Beyond Immersive Theatre*, *Aesthetics, Politics and Productive Participation*, London: Macmillan UK. Kindle Edition.

Aoyama, K., Iizuka, H., Ando, H. and Maeda, T> (2015) " Four-pole galvanic vestibular stimulation causes body sway about three axes." Scientifictic Reports, 5. 10168. Doi: 10.1038/srep10168.

Balasubramanian, H. (2021). 'Embodying Difference: Introducing 'Contact Movement' as an Ethnographic', *Teaching Anthropology*, Vol. 10(1) (2021): Special Issue: Re-imagining Diversity in Higher Education.

Benjamin, R. (2019). Race After Technology: Abolitionist Tools for the New Jim Code, Cambridge: Polity Press.

Brecht, B. (1964). *Brecht on Theatre: The development of an aesthetic,* trans. John Willett (Translator). New York: Hill and & Wang.

Caffyn, J. (2015*) Orientation: Mapping Queer Meanings*, USA: Erospirit. Kindle Edition.

Cahnmann-Taylor, M., & Siegesmund, R. (2018). Introduction. In: M. Cahnmann-Taylor & R. Siegesmund (Eds. Arts-based research in education: Foundations for practice (Second edition, p. 1-11).

Campagna, F. (2018) *Technic and Magic: The reconstruction of Reality*. London: Bloomsbury.

Chen, M., Y. (2012). *Animacies (Perverse modernities)*. Duke University Press. Kindle Edition. New York. Routledge.

Costanza-Chock, S. (2020). *Design Justice: Community-Led Practices to Build the Worlds We Need (Information Policy),* Cambridge, MA: The MIT Press. Kindle Edition.

Doty, A. (2000). *Flaming Classics: Queering the Film Canon*. London: Routledge. Kindle Edition.

Dudenhoeffer, L. (2014). Embodiment and Horror Cinema, New York: Palgrave Macmillan.

Durgnat, R. (2017). *A Long Hard Look at 'Psycho'*, London: Bloomsbury Publishing

Fisher, E., & Fortnum, R. (2013). *On not Knowing How Artists Think*, London, UK: Black Dog Publishing.

Fisher, M. (2009) *Capitalist realism: Is there no alternative?* John Hunt Publishing.

Fleming, P. (2021) *Dark Academia: How Universities Die*. London: Pluto Press.

Fujii, A. (2020) Thoughts on Misdirection, *The Neat Review*, Issue 3, Tokyo 2020.

Giroux, H. (2002) Neoliberalism, corporate culture, and the promise of higher education: The university as a democratic public sphere. *Harvard Educational Review*, 72(4): p.425-464.

Grandey, A.A. (2003). "When "the show must go on": Surface acting and deep acting as determinants of emotional exhaustion and peer-rated service delivery". *Academy of Management Journal.* 46 (1): 86–96.

Gray, M., L., Suri, S. (2019). *Ghost Work: How to Stop Silicon Valley from Building a New Global Underclass,* New York: Harcourt Publishing.

Groot, J. (1997) After the Ivory Tower: Gender, Commodification and the 'Academic' Feminist Review , Spring, 1997, No. 55, *Consuming Cultures* (Spring, 1997), p.130-142.

Hitchcock, A. (1960). *Psycho*, [film] Directed by Alfred Hitchcock, Los Angeles: Paramount Pictures.

Hochschild, A., R. (1983). *The managed heart: commercialization of human feeling,* Berkeley: University of California Press.

Keogh, B., Nicoll, B. (2019). *The Unity Game Engine and the Circuits of Cultural Software*, Cham, Switzerland: Palgrave Macmillan. Kindle Edition.

Kim, R. and Shams, L. (2009) 'What can Magicians Teach Us about the Brain? *Scientific American.* Available online at: < www.scientificamerican.com/article/magic-neuroscience-cognition-illusions> Accessed: [28/03/22].

Kosofsky Sedgwick, E. (1994) *Tendencies*, London, Routledge.

Kress, G. (2010) *Multimodality: A Social Semiotic Approach to Contemporary Communication*. London and New York: Routledge.

Kuhn, G. (2019) *Experiencing the Impossible: The Science of Magic*. The MIT Press: Cambridge MA.

Lomas, E. (2020). 'Queering VR', *Container Magazine*, Transcript of podcast. https://containermagazine.co.uk/queering-vr/

Lunn, J.O., McNeil, E., Wermers, J. (2018). *Mapping Queer Space(s) of Praxis and Pedagogy*, Phoenix, Arizona: Palgrave Macmillan.

Macknik, S. L., Martinez-Conde, S., Blakeslee, S. (2010) *Sleights of Mind.* New York: Henry Holt and Company.

Main, A. & Yamada-Rice, D. (2022) Evading Big Brother: using visual methods to understand children's perception of sensors and interest in subverting digital surveillance, *Visual Communication*, Vol. 21(3) Special Issue: Information is Ugly.

Maisuria A and Helmes S (2020) Life for the Academic in the Neoliberal University. London: Routledge.

Mariani, L. (2019). *Hitchcock: the primacy of visual over verbal (Part 2),* cinemafocus.eu.

Malbert, R. (2009) Foreword. Magic Show. London Hayward Publishing. p. 6-9.

Matsumoto, K., Hashimoto, T., Mizutani, J., Yonahara, H., Nagao,R., Narumi, T. and Hirose, M. (2017) Magic table: deformable props issuing visuo haptic redirection. *SIGGRAPH* Asia 2017 Emerging Technologies, p.1-2.

Meaden, S., White, D., B. (2020) 'Interval', *studio1-1*. http://www.studio1-1.co.uk/david-ben-white-and-sacha-meaden-interval/

Morrish, L. (2020) Academic freedom and the disciplinary regime in the Neoliberal University. In: Dawes S and Lenormand M. (eds) *Neoliberalism in Context Governance, Subjectivity and Knowledge*. Cham: Palgrave Macmillan, p. 235–253.

Nagao, R., Matsumoto, K., Narumi, T., Tanikawa,. T. and Hirose, M. (2017) Infinite Stairs: Simulating Stairs in Virtual Reality based on Visuo-Haptic Interaction. Conference paper. ACM *SIGGRAPH* 2017 Emerging Technologies. Available online at: https://dl.acm.org/doi/10.1145/3084822.3084838 [Accessed 28/03/22)

Neumark, N. (2017). *Voicetracks: Attuning to voice in media and the arts*, Cambridge MA: MIT Press.

Paré, D., Sengupta, P., Windsor, S., John, C., & Thompson, M. (2019). 'Queering Virtual Reality'. *Critical, Transdisciplinary and Embodied Approaches in STEM Education* (pp. 307–328). Cham, Switzerland: Springer.

Prochner, I. (2021). 'Theorizing a Queered Design and the (Im)possibility of Design for the Common Good', *Design as Common* Good, edited by Botta, M and Junginger, S. (2021).

Qi, Xingliang; Ji, Shuang; Zhang, Jing; Lu, Wanyong; Sluiter, Judith K.; Deng, Huihua (2016-11-01). "Correlation of emotional labor and cortisol concentration in hair among female kindergarten teachers". International Archives of Occupational and Environmental Health. 90 (1): 117–122.

Qudah S, Davies J and Deakin R (2019) Can we get more satisfaction? Improving quality of working life survey results in UK universities. *Perspectives: Policy and Practice in Higher Education,* Vol.23(2-3): p.39-47.

Quian Quiroga, R. (2016) Magic and Cognitive Neuroscience. *Current Biology*, Vol. 26, p.387-407.

Rancière, J. (1995). *Disagreement, Politics and Philosophy,* Minnesota: University of Minnesota Press.

Sedgwick, Kosofsky, E.., & Goldberg, J. (2012*). The weather in Proust.* Durham [NC]. Duke University Press.

Silverio, S. A., Wilkinson, C. & Wilkinson, S. (2021) The Powerful Student Consumer and the Commodified Academic: A Depiction of the Marketised UK Higher Education System through a Textual Analysis of the ITV Drama *Cheat. Sociology Research Online*, Vol. 26(1), p.147-165.

Svensson, J. (2022) Modern Mathemagics: Values and Biases in Tech Culture. In: Filimowicz, M. (2022) *Systemic Bias: Algorithms and Society*. London and New York: Routledge Focus Series. Chapter 2, p. 21-

Yamada-Rice, D., Dare, E. Main, A., Potter, J., Ando, A. Miyoshi, K., Narumi, T., Beshani, S., Clark, A., Duszenko, I. Love, S., Nash, R., Rodrigues, D., and Stearman, N. (2020) *Location-Based Virtual Reality Experiences for Children: Japan-UK Knowledge Exchange Network: Final Project Report.* Available online at: <https://ukjapanvr.wordpress.com/2020/06/13/nalprojectreport/>