The Virtual Realities of Contemporary Post/apocalyptic Fiction

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Submitted in accordance with the requirements
for the degree of Masters by Research

The University of Leeds

School of English

March 2025

The candidate confirms that the work submitted is their own and the appropriate credit has been given where reference has been made to the work of others.

Acknowledgements

I owe my thanks to my supervisor, Professor Stuart Murray. Our conversations about my research over the past three years have made me believe in my potential as a writer and have encouraged me to push my thinking.

I would also like to thank Dr Tom Jackson, who co-supervised my thesis research for several months prior to his resignation from the University of Leeds. Tom's extensive knowledge of Virtual Reality as a digital technology offered a unique insight into my literature-based research.

Having had the privilege of my work being supervised by academics from both the School of English and the School of Media and Communication, I hope that this English Literature Masters by Research is a testament to the value of interdisciplinary research, and opens the reader to the possibilities of VR technology as a practice-led approach to critical literary theory.

Abstract

This thesis explores Virtual Reality (VR) technology as a model for interactive, body-led experiential reading. The objective is to make a case for VR as a narrative medium which invites the user to physically interact with immaterial phenomena. I propose that this exceptional phenomenological character of the VR user experience represents the possibility of affectively engaging with the cataclysmic change definitive of the contemporary epoch.

To analyse how VR can be put to literary work, I explore three contemporary post/apocalyptic fictions which imagine post-technological near-future worlds: Emily St. John Mandel's *Station Eleven* (2014), Don DeLillo's *The Silence* (2020), and Rumaan Alam's *Leave the World Behind* (2020). In my readings of all three texts, I identify the unique affinities between VR and the post/apocalyptic genre by showing how each writer reimagines futurelessness as a productive, ahistorical place from which technology's synonymity with the future can be disrupted and reoriented towards the present. To translate the properties of VR to literature, I draw on a range of theories and discourses, including metafiction, digital media theory, phenomenology, and philosophies of technology. By applying this combination of literary, digital, and philosophical theories to the literary novel, I hope to highlight the potential of VR as a medium which adds interdisciplinary value to traditional literary criticism.

Each chapter explores how the texts varyingly evoke the experiential properties of VR by adopting a discursive and reclamatory approach to the apocalyptic tradition and inviting alternate modes of reading. The result, I hope, is a thesis which makes a persuasive case for VR as an alternative way of approaching traditional literary criticism and an affirmation of the value of reading fiction to understand and affectively respond to contemporary concerns.

Contents

Introduction

My first VR experience

In April 2022, exposed to Virtual Reality (VR) technology for the first time, I fitted the ski-mask like headset of the Oculus Quest 2 over my eyes and watched the grainy home screen image shiver into focus. It soon became apparent that if Sergo Martirosov is correct in defining VR as a fully immersive experience 'that allows users to experience artificial environments as the real world', then it is, in its current form, a poorly executed one.[1] I quickly discovered that if one steps too far outside the parameters of the virtual space, then the external world comes into black and white vision within the goggles. This colourless rendering of "reality" (along with the static and inflexible point-of-view produced by the positioning of headset at eye level) was a provocative reminder of the slippery border between the virtual and the physical world, and a powerful metaphor for the dualistic nature of a contemporary life lived both on and offline in near equal measure.

This story about VR, and more broadly, life within the digital age, unintentionally produced by my non-immersive and thus inevitably partial VR experience raised questions about the technology's narrative possibilities when it fails to fulfil the feeling of cognitive and bodily immersion expected by the user. VR becomes useful not for its capacity to replicate reality or to fulfil escapist fantasies through seductive, multi-sensory virtual worlds perhaps more pleasurable than the "real" world, but for its failure to do exactly that. As I found through my own VR encounter, these dysfunctional, technologically mediated experiences can thwart the user's expectations of technology, their own corporeal abilities, and reality itself. In the process and without intention, they produce more nuanced narratives about the relationship between human, technology, and world.

[1] Sergo Martirosov, Marek Bureš & Tomáš Zítka, 'Cyber sickness in low-immersive, semi-immersive, and fully immersive virtual reality', *Virtual Reality*, 26 (2022), 15–32 (p.18) <https://doi.org/10.1007/s10055-021-00507-4>.

With this impression of the potential narrative value of technology's dysfunctionality, I became fascinated by the idea of a world suddenly without information technology, and the subsequent effects upon a society, once so cognitively immersed within established technological systems and networks, suddenly unplugged from its everyday devices. I identified this critical approach to dysfunctional technologies as the central motif of 21st century post/apocalyptic fiction whose authors imagine cataclysmic change as a result of technology's failure or sudden disappearance.[2] This created a speculative enquiry into the unexpected, and unexpectedly productive, affinities between VR technology and stories about the world ending, and prompted a critical question of how post/apocalyptic fiction is a particular genre which meets the potential of emerging technologies like VR.

Thesis statement

Prompted by the novel relation between VR and the apocalypse genre established in the early stages of my research, this thesis explores VR as a model for interactive, body-led reading by examining three contemporary American post/apocalyptic fiction novels: Emily St. John Mandel's *Station Eleven* (2014), Don DeLillo's *The Silence* (2020), and Rumaan Alam's *Leave the World Behind* (2020).

By imagining post-technological worlds in which information technologies are varyingly present and absent, these authors offer up their texts as narrative interventions into the most pessimistic stories about the technological future. Marita Sturken and Douglas Thomas speculate that 'the visions and metaphors of new technologies in large part create and define the social impact of those technologies'.[3] Drawing on the distinction made here between technology and *stories about* technology, I explore how these three fictions about technology reimagine futurelessness as a productive, ahistorical place from which technology's long-

[2] Throughout this thesis, I use "post/apocalyptic fiction" as an umbrella term for apocalyptic and postapocalyptic fiction.
[3] Marita Sturken, Douglas Thomas and Sandra J. Ball-Rokeach, *Technological Visions: The Hopes and Fears That Shape New Technologies* (Philadelphia: Temple University Press, 2004), p.3.

held synonymity with futurity can be disrupted and redirected towards more sustainable understandings of technology in a present increasingly defined by environmental, technological, and social precarity.

I show how each writer literarily reproduces the materially discursive and embodied character of the VR user experience by attending to the dually material and immaterial quality of fiction novels and the intrinsically bodily nature of reading. By the end of this thesis, I will suggest that these narrative characteristics are indicative of a "virtual realist" turn in 21st century literature. I will argue that the context of crisis rooted in the apocalyptic script helps to assert the urgency of this VR-led transformation of reading into an experiential act and illuminates the virtual realities of contemporary post/apocalyptic fiction.

Anxieties about the ruined future once reserved for apocalyptic fiction have become anxieties about the present. In *Apocalyptic Fiction*, Andrew Tate claims that 'We now live in an era of apparent continual catastrophe and the fundamental context for addressing twenty-first-century apocalyptic anxiety is the greatest threat to life on earth: anthropogenic climate change'.[4] This rhetoric coupling of apocalypse with environmental crisis prompts the need for collective climate action to prevent this man-made phenomenon from taking disastrous effect. Given the ubiquity of crisis within the media and the popularity of post/apocalyptic fiction in its many televisual, cinematic and literary forms, one might expect the impetus for affective responses to narratives about global catastrophe to loom large within the popular imaginary.

However, while already impacting many countries in the form of unseasonal weather events, climate catastrophe (for now) largely remains a hypothetical and inherently narrative concept abstracted from everyday experience. Contrary to the representational ease of war, Rob Nixon explains how the 'slow unfolding environmental catastrophes present formidable representational obstacles that can hinder our efforts to mobilize and act decisively'.[5] The challenge of writing about contemporary crisis is twofold. Firstly, the fiction writer must narrativize an event with rhythms that necessarily evade representation. Secondly, stories about near-future environmental catastrophe must be so affective that they mobilize

[4] Marita Sturken, Douglas Thomas and Sandra J. Ball-Rokeach, *Technological Visions: The Hopes and Fears That Shape New Technologies* (Philadelphia: Temple University Press, 2004), p.3.
[5] Rob Nixon, *Slow Violence and the Environmentalism of the Poor* (Cambridge: Harvard University Press, 2011), p.2.

readers to take collective climate action. While my thesis does not exclusively focus on ecological concerns, the climate crisis articulates the contemporary need for storytelling forms which invite the reader to experience fiction in action and body-led ways, and foregrounds the sense of VR that I appeal to in this thesis.

Defining VR

The viability of using VR as a model for interactive, body-led reading first requires a clear definition of the technology and a clarification of the narrative sense of VR that I appeal to in this thesis. In his 1995 text, *Virtual Realism*, Michael Heim distinguishes between the 'weak' and 'strong' sense of VR. He explains, 'Today we call many things "virtual" [...] Contemporary culture increasingly depends on information systems, so that we find virtual reality in the weak sense popping up everywhere, while virtual reality in the strong sense stands behind the scenes'.[6] In 2024, sustaining the 'strong sense' of VR as 'first of all a technology' and an experience 'made possible by high-speed computers' is more challenging than ever.[7] Superseded by the internet and the everyday virtual reality experiences afforded by digital devices, VR has become less compelling. In 2019, Google abandoned production of its *Daydream View* headset because, as a spokesperson for the tech giant reported, 'There hasn't been the broad consumer or developer adoption we had hoped', and the BBC disbanded its VR team in the same year.[8] This indicates a commercial loss of faith in the technology and implies a cultural remove from the cyberpunk fantasies once so prevalent at the end of the twentieth century.

Heim's criticism that using "virtual reality" as a metaphor for life in the digital age stretches its potential as a powerful interactive technology 'to a thin vapor' exposes an ignorance of the literary, and thus, to deploy

[6] Michael Heim, *Virtual Realism* (Oxford: Oxford University Press, 1995), p.2.
[7] Heim, p.6.
[8] Adi Robertson, 'Google is continuing the Daydream View VR headset, and the Pixel 4 won't support Daydream', *The Verge*, 15 October 2019. <https://www.theverge.com/2019/10/15/20915609/google-pixel-4-no-daydream-support-view-vr-headset-discontinued> [accessed 20 November 2023] (para 2 of 4).

Heim's hierarchical language, inherently 'weak' origins of VR.[9] The genesis of the very idea of VR technology can be found in William Gibson's *Neuromancer* (1984). The book follows Case, a console cowboy who 'jacked into a custom cyberspace deck that projected his disembodied consciousness into the consensual hallucination that was the matrix'.[10] In a 1999 publication, Marie-Laure Ryan defines VR as 'an immersive experience of a world generated by the computer...[which] places the user inside data itself, a three-dimensional space projected by digitally encoded information'.[11] Traceable within Ryan's definition of VR is the rapid evolution of the term "virtual reality" from a fictional idea of the Gibsonian imaginary in 1981 into a real and formally defined technology by 1999. This affirms the crucial role of narrative in inspiring how technologies are built and used, and stresses the value of analysing fiction to understand modern technologies and life in the digital age.

By attending to the literary origins of the technology, I define VR as foremost a narrative technology, formally distinguishing this literary sense from VR's various military, industrial and commercial applications today. However, I also define VR in a way which departs from its Gibsonian origins. Elizabeth Grosz claims that 'The idea that one could take on a second-order or virtual body and somehow leave one's real body behind with no trace or residue [..] is a luxury only afforded the male subject'.[12] VR embodiment is, in Grosz's conception, a highly gendered matter. As such, to define VR as a technology which returns the user to their physical body, rather than liberating them from this fleshy burden in pursuit of a kind of cyborgian-becoming, is to stand against the masculinist assumptions about the body built into the VR headset and digital culture more widely.

Today's wearable devices such as mobile phones and fitness watches are becoming smarter, smaller and slimmer extensions of the human mind and body, while ways of working, connecting, and playing with others increasingly take place in virtual spaces. VR, by contrast, is a stubbornly material object. As Mel Slater remarks, while there has been a 'massive increase in graphics and computer power, VR has been

[9] Heim, p.2.
[10] William Gibson, *Neuromancer* (London: Harper Collins, 1984), p.12.
[11] Marie-Laure Ryan, *Cyberspace Textuality: Computer Technology and Literary Theory* (Bloomington: Indiana Press, 1999), pp.80-81.
[12] Elizabeth Grosz, *Architecture from the Outside* (Cambridge: The MIT Press, 2001), p.41.

around in something like its current form since the late 1980's'.[13] Reviewing the 2024 *Apple Vision Pro* headset, Julian Chokkattu criticizes the unchanged materiality of VR as the very thing preventing the futuristic visions of connecting and working written into the technology from being realised. As Chokkattu ponders: 'Should the future of computing be a bulky headset strapped to our heads that isolates us from the real world?'.[14] I answer "yes", because while not currently meeting certain user-friendly conditions required for usage, VR's objecthood presents an epistemological opportunity.

An empirical turn in the philosophy of technology, according to Paul Verbeek, 'started in the 1980's' and was motivated against the Heideggerian inclination to make 'claims about "Technology" as a broad social and cultural phenomenon' and instead 'focus on actual technologies, in their concrete contexts'.[15] In line with this turn, I propose that the largely unchanged objecthood of VR, in its 'concrete' form of the head-mounted display especially, make visible and tangible the processes of mediation and knowledge production abstracted by other digital devices as they become increasingly immaterial. According to Sturken and Thomas, 'technologies in their emergent stages have played a dramatic role in visions of the future and beliefs in the possibility of change'.[16] As information technologies become more imperceptibly integrated into people's everyday lives and bodies, the opportunity to chart the future state of human Being and society afforded by technologies when they are new and unfamiliar is an increasingly fleeting one. While Jaron Lanier released the first commercially available headset, the *VPL EyePhone*, in 1989, just six years after the first mobile phone, a 2024 study found that 23% of Americans owned a VR headset, while 98% of Americans own a mobile phone. I propose that VR's continually peripheral role in digital society disavows the atomization of different technologies into the singular category of "Technology" within traditional philosophies of technology, gives it a productive vantage point on the rhetoric of newness

[13] Mel Slater, 'Immersion and the illusion of presence in virtual reality', *British Journal of Psychology*, 109 (2018), 431-433 (p.431) <https://publicationslist.org/data/melslater/ref-344/bjop.12305.pdf> [accessed 3 Jan 2024].
[14] Julian Chokkattu, 'Review: Apple Vision Pro', *Wired*, 28 March 2024. <https://www.wired.com/review/apple-vision-pro/> [accessed 10 June 2024] (para 6 of 16).
[15] Paul Verbeek, 'The Empirical Turn', in *The Oxford Handbook of Philosophy of Technology*, ed. by Shannon Vallor (Oxford: Oxford University Press, 2022), pp. 35-55 (p.39).
[16] Sturken, Thomas and Ball-Rokeach, p.1.

surrounding emerging technologies, and affords a critical distance from which the human relation to technology can be analysed.

So far, my definition of VR as an embodied and material technology has been premised on the technology's shortcomings: it's "failure" to fulfil its prescribed function of disembodiment and its stunted development relative to the tendency of other digital devices towards dematerialization. I agree with Leighton Evans that the ideal of disembodiment in VR is an 'unrealistic understanding of the role that the player has in the VR system'.[17] Furthermore, the seductive promise of infinite immaterial space of virtual environments risks severing people's sense of connection and ethical responsibility to the felt earth that is so crucial to motivating affective action in response to real ecological catastrophe. However, I do not agree that VR should be constrained by perceptions of what is and is not "realistic". As described by Pierre Lévy, the idea of being in a virtual reality is 'a powerful mode of being that expands the process of creation, opens up the future, injects a core of meaning beneath the platitude of immediate physical presence'.[18] Most compelling about VR is not just its symbolic representation of alternate world possibilities, but how the medium's interactive properties make it possible for the user to feel and move within such imaginary worlds.

In *Conceptualising Touch in VR*, the co-writers explain how interactive devices create 'touch illusions' and enrich the user's sense of presence in VR. Such digital artefacts include 'gloves; enhanced controllers through attached vibrotactile motors or mechanical actuators enabling users to feel the shape of virtual objects'.[19] The idea that a person can grasp a virtual glass of water or sense an avatar gentling tap them on the shoulder in virtual environments distorts established conventions of what "touch" is and what is "touchable". By deduction, VR expands what the "body" is capable of and what counts as "real". It represents a paradoxical narrative medium in which the user can physically interact with immaterial and fictional phenomena, and which allows the participant not only to be *moved by* stories (emotionally

[17] Leighton Evans, *Virtual Reality Gaming: Perspectives on Immersion, Embodiment and Presence* (Leeds: Emerald Publishing, 2025), p.107.
[18] Pierre Lévy, *Becoming Virtual: Reality in the Digital Age*, trans. by Robert Bonono (New York: Plenum Trade, 1998), p.16.
[19] Sarah Price, Carey Jewitt and Nikoleta Yiannoutsou, 'Conceptualising Touch in VR', *Virtual Reality*, 25 (2021), 863-877 (p.864) <https://doi.org/10.1007/s10055-020-00494-y>.

speaking), but to *move within* them. I propose that these interactive and haptic properties of VR allow the participant to reach into immaterial and imaginary worlds, including a near-future world struck by catastrophe, and thus serves as a powerful model for action-led modes of reading stories about global crises.

The unexpected affinities between VR & post/apocalyptic fiction

According to Tate, 21st century apocalyptic fictions are typified by two visions of the ruined future. The first is 'a world dominated by technology and excessive consumerism that generates endless leisure for a decadent ruling elite and misery for a vast, starving underclass'. The second is 'of a devastated earth in which this 'technofuture' has failed and life is simply a brutal struggle eked out by the survivors'.[20] With or without technology, both visions paint an inescapably bleak fate for humanity in the grip of unsustainable technological change. To liberate VR from these bleak prophecies of the technofuture, I attend to the unexpected affinities between VR and post/apocalyptic fiction.

In Monica Kaup's definition, post/apocalyptic fiction 'asks about the very condition of what constitutes the world (non-material ideas and values, as well as facts and material objects)', establishing a foundational link between the genre and the material/ immaterial constitution of VR.[21] According to Colin McAllister, 'Apocalyptic speculation is largely a response to scenarios- societal, cultural, political, environmental- that seem untenable and insurmountable, beyond human cognition and agency.[22] In other words, the crisis thematics of the end-of-the-world narratives embed real-world, ongoing crisis events in their apparently "fictional" works. Just as it is often said, as Ryan remarks, that 'VR undermines the distinction between

[20] Tate, p.5.
[21] Monika Kaup, *New Ecological Realisms: Postapocalyptic Fiction and Contemporary Theory* (Edinburgh: Edinburgh University Press, 2021), p.52.
[22] Colin McAllister, 'Through a Glass Darkly: Time, the End, and the Essence of *Apocalyptica'*, in *The Cambridge Companion to Apocalyptic Literature* ed. By Colin McAllister (Cambridge: Cambridge University Press, 2020), 1-18 (pp.1-2).

fiction and reality', apocalyptic fiction similarly blurs the boundary between the real and the imaginary, to the effect of taking up a speculative position on "reality".[23]

Working from these rudimentary connections between VR and apocalyptic thinking, I use Jessica Hurley's reclamation of apocalypticism as a discourse which 'allows different realities to become imaginable in the present' to emphasize how the interactive quality of VR similarly makes the knowledge of alternative possible realities usually reserved for future-oriented fiction experientially accessible to the user.[24] This in turn challenges the impossibility of knowledge production in apocalyptic fiction. As Russell Meeuf argues, the epistemic dilemma of world-ending stories is that 'the revelation of truths and annihilation are the same thing in apocalyptic discourse'.[25] In other words, to pursue knowledge of the end of the world is to pursue one's own self-destruction.

In his influential work, *The Sense of an Ending* (1967), Frank Kermode argues that the end-oriented nature of apocalyptic fiction and the plotted structure of novels more widely 'helps us to make sense of our lives',[26] and serves 'a need in the moment of existence to belong, to be related to a beginning and to an end' by fallaciously imposing teleological order and linear form onto a fundamentally formless and infinite world.[27] Hurley's animation of 'futurelessness as a starting point for thought rather than its end' thus begs a question of what becomes of the novel (and in turn, the reader's sense of the world), and *how* the reader should interpret narrative, when the end is taken as a given and the reader is no longer reading for the end.[28] By disavowing the deterministic, linear orientation of narrative towards a future end, I suggest that the three post/apocalyptic fictions explored in this thesis extend meaning towards alternative, extratextual elements of the book, such as the materiality of the text and the bodily experience of reading when handling textual

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[23] Ryan, *Narrative as Virtual Reality: Immersion and Interactivity in Literature and Electronic Media* (Baltimore: John Hopkins University Press, 2001), p.1.
[24] Jessica Hurley, *Infrastructures of Apocalypse: American Literature and the Nuclear Complex* (Minneapolis: University of Minnesota Press, 2020), p.8.
[25] Russell Meeuf, 'Nuclear Epistemology: Apocalypticism, Knowledge, and the “Nuclear Uncanny” in Kiss Me Deadly', *Lit: Literature Interpretation Theory*, 23.3 (2012), 283-304 (p.286) <https://doi.org/10.1080/10436928.2012.703593>.
[26] Frank Kermode, *The Sense of an Ending: Studies in the Theory of Fiction with a New Epilogue* (Oxford: Oxford University Press, 2000), p.1.
[27] Kermode, p.4.
[28] Hurley, p.5.

objects. This opens literature to the interactivity of the VR user experience and theorizes VR within a critical literary framework, settling transmedia frictions between traditional literary forms and their digital successors.

Introducing the texts & methodology

Though not central to my readings, it is noteworthy that all three texts imagine a distinctly American apocalypse. As Daniel Cordle outlines, the threat of the atomic bomb during the Cold War meant that United States fiction written after 1945 'shaped, and was shaped by, "nuclear states of suspense" and their attendant affect: anxiety'.[29] I speculate that the apocalyptic force of nuclear technology is carried by today's information technologies. Nuclear and information technologies alike exist within a domain of imperceptibility and unknowability, perpetuating a sense of human vulnerability in relation to technology and a horrifying notion of knowledge as only attainable when the bomb detonates or the network collapses, and humanity is destroyed.

Mandel, DeLillo, and Alam disrupt the impossibility of knowledge within apocalypticism by depicting apocalypse as an event which can be survived, can take place in parts, and can be happening without people's awareness. Together, they approach the apocalypse by degrees, as a spectrum as opposed to a singular, irreversibly destructive event. In doing so, they challenge western epistemological ideals of objectivity and certainty inherent to apocalyptic discourse by embracing subjectivity and uncertainty as alternative forms of knowledge production.

The urgency of this spectral approach to knowledge is rooted in each of the writer's depictions of information technologies. In a smartphone age in which most people live their lives inseparably from these pocket-sized supercomputers, on-demand access to information and knowledge is a given. Yet information

[29] Daniel Cordle, 'Reviewed Work: Daniel Cordle. Nuclear States of Suspense: The Nuclear Age, Postmodernism and United States Fiction and Prose', *Modern Fiction Studies*, 57.4 (2011) 764-766 (p.764) <https://www.jstor.org/stable/26287230> [accessed 4 June 2024].

overload throws up various epistemological dilemmas; how does one determine which information is worth knowing? How does one decipher if a video is real or digitally manipulated? The era of misinformation, dubbed by Joshua Habgood-Coote as 'an unprecedented epistemic apocalypse', presents a troublesome landscape in which fact and dangerous fictions are increasingly blurred.[30] Nevertheless, through their varying depictions of near-future worlds of defunct smart phones, blank TV screens, and illegible news broadcasts, Mandel, DeLillo, and Alam reframe this technological epistemic crisis as an opportunity to make stories that intervene in society's habitual relations to, and epistemic perceptions, of information technologies.

The question of methodology, of *how* I intend to read my three chosen texts in order to explore VR as a model for experiential reading, is of great theoretical interest to this thesis, given that it is the very act of reading, and its transformation by VR, that I am exploring. Methodology is particularly important in relation to my claim that DeLillo's *The Silence* is not a text to be "read" at all. In *Reading and the Body*, Thomas McLaughlin explains that the traditional sense of reading is 'a disembodied, purely mental act'.[31] Showing how reading can be an embodied experience thus requires addressing the idea of engaging with texts in terms of the micro-level, operational functions of the body when a reader interacts with a physical text, such as the eyes that scan the words and the hands that hold the book. However, this approach to the reading body is theoretically limited by the unchanging material form of books and the restrictive ways that books can be handled, imposing a divide between VR and literature marked by the embodiment limitations of non-digital texts. To overcome this, I place the extratextual reader's relation to the texts in dialogue with the characters' relationships with stories, a metafictional trope central to all three of my chosen texts.

Through their reader ontology, the characters hold a mirror up to the extratextual reader's own interaction with the text in their hands, a recognition of self in a virtual being paralleling the embodiment experience of using VR. The interpretation of these texts as literary virtual realities is partially premised on the more

[30] Joshua Habgood-Coote, 'Deepfakes and the epistemic apocalypse', *Synthese* 201.103 (2023), 1-23 (p.1) <https://doi.org/10.1007/s11229-023-04097-3>.
[31] Thomas McLaughlin, *Reading and the Body: The Physical Practice of Reading* (New York: Palgrave Macmillan, 2015), p.1.

conceptual notion of "virtual" as a synonym for potentiality. As Ryan describes, 'As a generator of potential worlds, interpretations, uses, and experiences, the text is thus always already a virtual object'.[32] However, to mediate this idea that *all* fiction, including texts written before the digital age, may be described as a "virtual reality" and to sustain VR's value as a technology, each chapter in this thesis stresses how the writer illuminates the material and interactive possibilities of information technologies in particular, and in turn the material and interactive potential of their texts. By evoking VR in its concrete sense as a technological object, the novels deal specifically with the questions arising from life in the digital age.

In line with James L. Heaps' definition of the phenomenon of reading as 'embodied and situated', the methodologies I use are subjective to each text and my own reading experience of each story.[33] Nevertheless, the chapter summary below weaves a web of theories I draw on in all three chapters: the apocalyptic tradition and the prescriptive modes of reading and knowledge inherent to the genre; digital and new media theory, with particularly attention to the interactivity introduced to literary studies by digital narrative forms; metafiction, a literary technique deployed by all three writers as a form of narrative interaction, and the phenomenological relation between subject and object inherent to the reader experience of texts and to the user relation to information technologies.

Chapter summaries

Through close analysis of Mandel's *Station Eleven,* Chapter I probes the fate and function of fiction twenty years after a global pandemic has killed ninety-nine percent of the population and technological systems have collapse. Contrary to apocalyptic fiction, which Kaup defines as a story about 'getting ready for the coming of the end of the world', *post*apocalyptic fiction 'is about crawling out of the rubble and remaking world and society from within the wasteland of ruins'.[34] The story oscillates between two pre and postapocalyptic timelines. The first traces the origins of the end of the world in Year Zero, beginning with

[32] Ryan, p.45.
[33] James L. Heap, 'Toward a Phenomenology of Reading', *Journal of Phenomenological Psychology*, 8.1 (1977) 103-113 (p.103) <https://doi.org/10.1163/156916277X00141>.
[34] Kaup, p.5.

a performance of *King Lear* on a Toronto theatre stage and biographically tracing the life of the lead actor, Arthur and his first wife Miranda, an author of a comic book series bearing the same title as the novel. One of the only two existing comic copies is gifted to Kirsten as a child by Arthur when performing in the same *King Lear* play just before Arthur dies on stage and simultaneously, the world as they know it ends forever. The second timeline follows Kirsten and her fellow band of travelling Shakespeare performers drifting across the wastelands of a post-technological North America in Year Twenty, guided by a tentative "the show must go on" philosophy. Towards the beginning of the novel, the Symphony perform *A Midsummer's Night Dream* in a ragtag settlement beseeched by a doomsday cultism led by a man known as the "Prophet", the novel's antagonist. In what follows, Symphony members begin to disappear, and the story traces Kirsten's journey to an airport terminal turned into the *Museum of Civilization* where she hopes to reunite with the group.

The only postapocalyptic text explored in this thesis, *Station Eleven* deals with technology with the benefit of hindsight. Defunct digital devices are displayed in the makeshift airport museum and rendered cultural relics of the past. They are a source of nostalgia for those old enough to remember life with technology and the stuff of mythology for children born in the post-technological era. Focusing on the rendering of digital technologies as defunct objects by the absence of power, I draw on object-oriented theory and Thomas Heidegger's *The Question Concerning Technology* (1954) to argue for the artistic and narrative essence of technological objects, and in turn, the technological essence of textual objects. I use Maurice Merleau- Ponty's *Phenomenology of Perception* (1945) to show how Mandel's object-oriented approach to both technology and literature invokes the reader's body, and evokes the types of interactions had between the user and VR. Surveying the various metafictional properties at work in the novel, I analogize metafiction within traditional literary criticism to the interactivity of VR, and the plot-driven conventions of the novel to immersion in VR. I use Ryan's digital media theory and the empirical turn in the philosophy of technology to suggest that Mandel appeals to the narrative exceptionality of VR as an immersive-interactive medium to ask if the same exceptionality is possible of the literary novel.

Taking a counterintuitive turn, Chapter II reverts from Mandel's postapocalyptic fiction of world remaking to a world and narrative-breaking work, DeLillo's *The Silence.* A systems crash on Super Bowl Sunday in 2022 forms the short story's premise. The crash is experienced on two disparate technological planes by the five main characters: a hyperbolically apocalyptic plane crash, and a more quotidian, abstracted crash experience of a television going blank. Evoking the appeal to particular technologies within postphenomenology and the wider empirical turn, DeLillo emphasizes how different types of technologies varyingly mediate subjective experiences of catastrophe. The cause of the crash left to the speculations of the five characters, DeLillo's book is apocalyptic-question mark, thus defining "crisis" as a crisis of knowledge.

Using Laura Ellingon's definition of embodied knowledge as encompassing 'uncertainty, ambiguity, and messiness in everyday life', I read DeLillo's intentionally ambivalent approach to apocalypse as an evocation of the experiential and body-led forms of knowledge production inherent to VR.[35] Embracing the silence implicit in embodied knowledge and professed in the book's title, I make the paradoxical claim that *The Silence* is not a book to be "read" at all, but to be sensorially experienced by the reader. To support this discursive interpretation of a literary text, I reference DeLillo's diffidence to the reader confessed in various published interviews to address the irony of schematized attempts to read the DeLillian canon when his books have never really been intended for reading, and to emphasize that for DeLillo, the satisfaction of literature resides in the embodied interaction with words during the act of writing. Nevertheless, suggesting something of a turning point in DeLillo's approach to fiction and relation to his audience, I argue that by turning the reader's attention to the material substance and spatial organisation of *The Silence*, DeLillo recreates the spatiality of new media texts and the freedom of movement this affords the user, to extend the embodiment experience of writing to the reading.

I interweave ideas about narrative forms which centre reader experience, from Edgar Allan Poe's work on the short story form, to Samuel Beckett's reductionist approach to plays, with digital media theory. I

[35] Laura Ellingson, 'Embodied Knowledge', in *The SAGE Encyclopedia of Qualitative Research Method*, ed. by Lisa M. Given (Los Angeles: SAGE Publications, 2008), pp. 244-245 (p.244).

argue that while the print book will always be a phenomenologically limited experience in comparison to VR, the rule of unreason and illegible dialogue governing DeLillo's approach to fiction summons the reader to interpret the text intuitively. I conclude the chapter by hypothesizing that intuition, as a cognitively unmediated process, is the closest approximation to moving through literary space as the user does in VR.

Moving from Mandel's postapocalyptic script and DeLillo's uncertainly apocalyptic text, the final chapter turns towards a partially apocalyptic book, Alam's *Leave the World Behind* (*LTWB).* Written in the same year and the set in the same U.S state as *The Silence,* the novel asks what would become of a white middle class family's understanding and experience of apocalypse if holiday in rural Long Island with precarious internet connection when events ensue. A few days into the trip, the owners of the house arrive on the doorstep, bearing a story of a blackout in New York and seeking refuge. Thrust together by apocalyptic circumstance, the two families must co-habit a house to which they each lay claim, an awkward power structure which brings the racial coding of technologies and apocalyptic storytelling to the narrative's forefront.

Using apocalyptic realism theory and critical race studies of technology such as Ruja Benjamin's *Race After Technology* (2019), I analyse how Alam attunes the reader to the unevenness of crisis experience and the exclusionary force of modern technologies to reclaim the productivity of the apocalypse script. I argue that apocalypse and technology find their most violent combination in news media, the assumed objectivity of which is racially weaponized in the novel to negate the Black couple's experience of the blackout. This faith in representation over other things and people is perpetuated in varying ways by the book's adult characters, who willfully ignore the material fact of cataclysmic change noted and affectively responded to Rose, a young girl who emerges as *LTWB's* child protagonist. Drawing on the embodied nature of infant literacy, I propose that the innate capacity for embodied ways of reading and engaging with the wider world personified by Rose become clouded by the personal beliefs, agendas, and habits inherited by people as they get older.

The challenge, Alam suggests, is to invite readers to *feel* immaterial phenomena like change. I use Heim's *Virtual Realism* to address the seductive, naïve realism of materialist notions of a world readily

available to direct phenomenological experience and unmediated by technology. I argue that VR is a medium which makes it possible for the user to physically interactive with immaterial phenomena like change, and conclude by stating that Alam's *LTWB,* in combination with the invocations of VR in *Station Eleven* and *The Silence*, persuasively approach a virtual realist approach to narrative.

CHAPTER I

Emily St. John Mandel's *Station Eleven:* An Immersive-Interactive Fiction

Probing the limits of the literary novel

In *Virtual Reality: Through the New Looking Glass*, Ken Pimentel and Kevin Teixera define VR as an 'interactive, immersive experience generated by a computer'.[36] In literary terms, this synthesis of interaction and immersion within VR constitutes a seemingly impossible reading experience. To be 'immersed' or 'lost' in a book is a sense of being *inside* of a storyworld which depends on, as Ryan states, 'the transparency of the medium'.[37] The reader must momentarily forget that the story is a constructed work of fiction for the sake of their investment in the plot. To 'interact' with a story, by contrast, is for a reader to be positioned *outside* of the story and to exercise a critical awareness of the linguistic mediation of the fictional world and their own identity as reader.

Constituting two conflicting modes of narrative reception which pull the reader in and out of the storyworld, a book cannot be simultaneously immersive *and* interactive. It is implausible for a work of fiction to sustain an immersive plot, defined by Marco Caracciolo as 'narratives' organizing principle, the set of strategies through which the narrated events and existents are integrated into an emotionally meaningful whole', while also exercising metafictional and self-reflexive strategies which invite the reader to critically interact with, or rather interrogate, such narrative conventions.[38] In VR however, as Ryan highlights, 'The more interactive a virtual world, the more immersive the experience'.[39] Interactivity and immersivity do not stand in conflict in VR, Ryan reasons, and thus the fundamental difference between VR and literary forms of storytelling, is 'the participation of the body in an art-world'.[40] The bodily experience of print-based text is restricted to the hand that turns pages, or the finger that traces words in a sentence. In

[36] Ken Pimentel and Kevin Teixera, *Virtual Reality: Through the New Looking Glass* (New York: Intel/ Windcress, 1993), p.11.
[37] Marie-Laure Ryan, *Narrative as Virtual Reality 2: Revisiting Immersion and Interactivity in Literature and Electronic Media* (Baltimore: John Hopkins University, 2015), p.117.
[38] Marco Caracciolo, *Contemporary Narrative and the Spectrum of Materiality* (Berlin: De Gruyter, 2023), p.23.
[39] Ryan, 'Immersion vs. Interactivity: Virtual Reality and Literary Theory', *SubStance*, 28.2 (1994), 110-137 (p.132) <https://doi.org/10.2307/3685793>.
[40] Ryan (2001), p.286.

VR, however, the full-body motion tracking function of the headset and hand controllers means that, as Ryan explains, 'The flesh and blood body of the user is bound to the virtual world by a feedback loop that reads the position of the body as binary data and uses this input to produce the sensory display'.[41] In other words, the more a participant uses their body and the mediating haptic technologies to participate with the virtual environment, the richer and more immersive the fictional world as it materializes around them.

This causal relation between corporeal engagement and narrative world generation in VR is a powerful model for the more action-driven modes of reading required for readers to affectively respond to stories about global catastrophe. The dually immersive and interactive quality of VR shows that intense absorption in a story does not always disengage a reader from issues prevailing in the real, physical world. On the contrary, VR suggests that it is possible for someone to be so invested in a story about near-future global crises that they are motivated to take action to prevent such fiction from becoming reality. This creates an inquiry into how contemporary postapocalyptic fiction writers might draw on the immersive-interactivity of VR to invite readers to respond more affectively to the near-future global crises prophesized in their work.

Station Eleven by Mandel is a postapocalyptic novel which probes the fate and function of literature in a near-future North America twenty years after a global pandemic has killed ninety-nine percent of the population and technological systems have collapsed. Obsolete objects, or 'kipple', to borrow Philip K. Dick's neologism for 'useless objects, like junk mail or match folders after you use the last match or gum wrappers...' coined in his seminal dystopian text, *Do Androids Dream of Electric Sheep?* (1968), pile high in postapocalyptic fiction.[42] In his literary analysis of the things left behind after societal collapse, Bill Brown ponders 'the role objects play in human life, what kind of knowledge they congeal, what kinds of agency they assume' when artefacts are detached from their habitual uses and normative functions.[43] In this

[41] Ryan (2015), p.55.
[42] Philip K. Dick, *Do Androids Dream of Electric Sheep?* (London: Gollancz, 2007), p.56.
[43] Bill Brown, *Other Things* (Chicago: The University of Chicago Press, 2016), p.132.

reading of *Station Eleven*, I draw on Brown's inquiry into object culture after near human extinction to explore Mandel's special attentiveness to literary and technological objects in a post-technological context.

I explore the storytelling power of defunct technological objects in the book, a narrative reframing of modern technologies which grounds my thinking about VR as foremost a narrative medium. Mandel's disassociation of technology from electricity and functionality creates an opportunity to extend the interactive properties of VR as an electronic medium to non-digital storytelling forms. I seize this opportunity by surveying the meta-literary modes operating in *Station Eleven.* I assess how Mandel uses metafiction to bring the extratextual reader into the story, inviting them to interact with the narrative in ways that resemble the VR user experience. In turn, the allusions to technology in Mandel's fictionalized contemplation of text-reader relations stresses how pervasive use of communication and information technologies today is transforming *how* readers engage with stories, and thus human-technology relations should be embraced within contemporary theories of reading.

According to Kaup, 'the prophesised end of the world of apocalyptic narratives' engenders the closure 'required by all narratives to create coherence and meaning'.[44] It follows that a *post*apocalyptic story necessarily occludes such narrative conventions and gives way to deconstructive storytelling. *Station Eleven* is a highly fragmented reading experience with a complex network narrative, nonlinear form, and irregular "chapters" as short as one paragraph. However, I argue that Mandel defies the polarization of the postapocalyptic genre with the possibility of narrative closure by extending her fascination with the storytelling power of objects to literature itself. Her attentiveness to how Kirsten, one of the book's main characters, experiences and uses literary objects playfully reimagines texts as things to be felt and sensed by the reader, rather than interpreted in the traditional sense of reading as 'a disembodied, purely mental act', as defined by McLaughlin.[45] In Merleau-Ponty's pioneering study of phenomenology, he states 'my body is the fabric into which all objects are woven'.[46] This lyrical meditation on the binding of persons with

[44] Kaup, p.7.
[45] McLaughlin, p.1.
[46] Maurice Merleau-Ponty, *Phenomenology of Perception,* trans. by Colin Smith (London: Routledge & Kegen Paul, 1962), p.273.

things speaks to the idea central to phenomenology that the body is implicated in all objects within its surroundings. Applying Merleau-Ponty's theory to *Station Eleven*, I argue that Mandel's object-oriented approach to literature navigates the phenomenological limitations of reading print-based texts addressed at the beginning of this chapter by invoking the reader's body implicated by the literary object. I conclude that this object-oriented approach to storytelling reconciles the metafictional and plot-driven dichotomies of literature wrestled with by Mandel in *Station Eleven*, and more ambitiously, approximates the immersive-interactivity of VR supposedly impossible in literature.

The narrative essence of technological objects

Station Eleven begins on stage, with a performance of Shakespeare's *King Lear* in a pre-apocalyptic Toronto. Before the play reaches the king's well-known death, the famous actor playing the monarch, Arthur Leander, dies of a heart attack. Coincidentally, Arthur dies on the same night of the book's apocalyptic event, a plague called the "Georgian Flu" 'that exploded like a neutron bomb over the surface of the earth' (p.37) and wipes out ninety-nine percent of the population. The coincidental timing of Arthurs' death with the flu outbreak rescripts the king's death as the beginning of Mandel's own story of postapocalyptic survival. As such, this apocalyptic event is an ending of two versions: the end of a life and the end of a world, the collapse of an individual and the collapse of a global society. From this evening onwards, the novel temporally oscillates between Arthur's pre-collapse fall from fame and a post-collapse timeline which follows the Travelling Symphony, a touring troupe of musicians and actors who wander by horse and caravan to perform Shakespeare plays in rag tag settlements across North America. The nomadic philanthropists swear their allegiance to a "the show must go on" philosophy with their own lives as they move between hostile townships where they were often 'turned away at gunpoint' (p.119), a perilous commitment to art proverbially reasoned by the Symphony's pop-culture motto, "Because survival is insufficient" borrowed from *Star Trek*.

A few pages into the novel, the troupe perform Shakespeare's *A Midsummer Night's Dream* to the townspeople in a town called St. Deborah by the Water. Thanking the group for "this beautiful respite from our daily cares" after the performance, a male figure implied as the leader of the town sermonizes that "everything that has happened on this earth has happened for a reason" (p.59). He, the "Prophet", recounts the Georgian Flu as "the great cleansing that we suffered twenty years ago" (p.60), and the pandemic survivors, the divine elect. With this, the troupe quickly realise the town is under siege by a threatening doomsday cultism, a threat affirmed by the Prophet's request for the symphony's conductor to consider leaving Alexandra, one of the youngest symphony members, 'as a guarantee of future good relations between the Symphony and the town' (p.65). Two years earlier, the troupe had left two fellow members named Charlie and Jeremy in St. Deborah to raise their newborn in what they believed to be a more stable environment than life on the road, and anticipate a reunion with the young family while performing in the township.

But instead of finding their friends, they find 'grave markers with their names on them' (p.55), an explicit sign of the Prophet's violent leadership confirmed by a midwife who reports that the couple had fled with the baby after Charlie had rejected the Prophet's advances. Deciphering that the only logical route for the young family to take would be to the Severn City airport settlement to the south of the region, the troupe flee the town and set out in search of their friends. The morning after walking through the night to distance themselves from the Prophet, a twelve-year-old girl name Eleanor, arranged to be married to the Prophet as part of his divinely ordained plan to 'repopulate the earth' (p.123), is found hiding in one of the caravans and pleads to be taken with them.

Two days out of St. Deborah, Symphony members start to vanish, kidnapped by the Prophet's gunmen sent to retrieve the stowaway bride. Forced to detour, the Travelling Symphony disappears from the story until the end of the novel and with it, the viability of reading *Station Eleven* as a romantic proclamation of art as an enduring form of species resilience in times of suffering. By simultaneously introducing and erasing the Symphony, Mandel strategically constructs, only to deconstruct, the normative ideals and expectations of traditional storytelling epitomized by the Shakespearean troupe and parodied by the pop

culture origins of its guiding philosophy. With this, the narrative detours to flashbacks of the pre-apocalyptic lives of Arthur, Miranda, Jeevan, Clark and Kirsten. This networked account of subtly entangled lives explains how Kirsten Raymonde, a young female who performed in the *King Lear* play alongside Arthur on the night the world ended, got to this postapocalyptic position.

Despite remembering very little about her pre-collapse life, Kirsten *does* remember meeting Arthur, and carries two comic books that he had given to her amongst her few possessions. The comic books, written by Miranda, Arthur's first wife, bear the same title and a correlative apocalypse plot as the novel, and parallel the book throughout. In what follows, Kirsten, separated from the troupe while fishing, sets out to find the Symphony, leading to a face-off with the Prophet and eventually bringing her to the Severn City airport terminal-turned-town, where the novel ends. Here lies the "Museum of Civilization", an impromptu archive of pre-collapse technological artefacts started by Arthur's old friend, Clark Thompson. Kirsten's journey to a place in which quotidian digital devices are recast as cultural relics of a bygone tech era mirrors Mandel's own authorial journey to the narrative value of texts as objects.

Twenty years after the collapse, 'the age of electricity come and gone' (p.57), information technologies have become the stuff of mythology in *Station Eleven.* Characters old enough to remember life before the Georgian Flu express a deep nostalgia for the taken-for-granted wonders of the technological world. Dieter, a member of the Symphony, recounts a dream of seeing an airplane in the sky, and weeps with joy at the prospect that 'There was still a civilization somewhere' (p.134) represented by this sighting. August, when accompanying Kirsten on her trips to abandoned houses, would 'always gaze longingly at televisions' (p.39). Children born after the collapse, having 'never seen a lit-up computer screen' (p.39), regard the possibility of functional technology as an unforgettably beautiful, 'magical thing' (p.39). Such lyrical meditations on technology are interspersed throughout the novel. They echo expectations of enlightenment, progress, and freedom promised by technology, a utopian reading of emergent machine and electronic technologies considered by Sam Inkinen as 'part of the larger meta category of the "technological sublime"' dominant

within the nineteenth century.[47] Yet rather than a regression to the western rhetoric of technological progress, the characters' hopes, dreams, and stories attached to broken technological objects and empty skies once cross-hatched with contrails revive an understanding of technology as foremost an art form. This holistic conception of technology, realised in the novel through the absence of electricity and the subsequent liberation of technological objects from human instrumentalization, aligns with the etymology of technology, or 'techne', provided by Martin Heidegger in *The Question Concerning Technology* (1954). As Heidegger points out, 'techne is the name not only for the activities and skills of the craftsman, but also for the arts of the mind and the fine arts'.[48] In line with Heidegger's thinking, the characters' contemplations of beautifully useless technologies do not stem from the marvel of television or aviation as feats of human engineering, but from the metaphysical and immaterial understandings of reality held within these broken artefacts.

Offering a contemporary development of Heidegger's twentieth century philosophy of technology, Mandel extends the 'essence of technology' to communication and information networks, that most ambiguous, ephemeral material which surrounds modern society and plays a huge role in how people live their lives, communicate with one another, and produce knowledge.[49] Towards the beginning of the novel, Mandel details a past encounter between the Travelling Symphony and an inventor who had rigged a stationary bike-powered electrical system in his attic to power a defunct computer. However, 'the point wasn't actually the electrical system, the point was that he was looking for the Internet. A few of the younger Symphony members had felt a little thrill when he'd said this, remembered the stories they'd been told about WiFi and the impossible-to-imagine Cloud, wondered if the Internet might still be out there somehow, invisible pinpricks of light suspended in the air around them' (p.38). This fascinating depiction of the inventor 'looking for the Internet' like an archeologist searching for an ancient relic extends Mandel's

[47] Sam Inkinen, *Mediapolis: Aspects of Texts, Hypertexts, and Multimedial Communication* (Berlin: De Gruyter, 1998), p.246.
[48] Martin Heidegger, *The Question Concerning Technology, and Other Essays* trans. by William Lovitt (New York: Garland Publishing, 1977), p.13.
[49] Heidegger, p.3.

object-oriented approach to technology in *Station Eleven* to digital phenomena, inciting a metaphysical inquiry into *what* and *where* the Internet is.

In his analysis of material culture, Daniel Miller clarifies that 'The internet is not a thing, and has no clear material form except through the box and screen that is the computer'.[50] His emphasis of the computer as merely a material representation of the web implies that the immateriality of the Internet does not undermine its ontological value as a 'real' thing. A useful analogy to understand the Internet as a thing that exists independently of material mediation is that during a power cut, the Internet does not cease to exist. The web simply becomes temporarily inaccessible because of the breakdown of electricity and temporary failure of mediums such as computers and smartphones. The global tech breakdown imagined by Mandel thus may be read as a twenty-year power cut in which, as the inventor's quest suggests, the Internet must still exist somewhere. Finding the digital domain, and the mass of knowledge, memories, and forms of connectivity between geographically distanced peoples held within it, requires reimagining the material and bodily ways that such immaterial technologies might reveal themselves to humans. In this sense, Mandel implicitly advocates for new understandings of human-technology relations inspired by participant encounters with virtual phenomena in VR.

Mandel mediates a possible reading of the character's collective obsession with modern technologies as a valorization of the digital age by depicting a world which is in many ways better off without technology. Having never experienced the "zombifying" and isolating effect of digital devices, children grow up in hyperlocal and genuinely networked communities. While making their journey to find Charlie and Jeremy, Kirsten and her closest friend, August, encounter a golf course pond where 'there were so many fish that it was possible to catch them with a net' (p.144). People can look above every night and see a brilliant sky awash with stars, now that 'The era of light pollution had come to an end' (p.251). The rewilding in *Station Eleven* depicts a natural world thriving in the absence of capitalism, consumerist culture, and industrial technologies. However, resisting the redemptive impulse of postapocalyptic fiction and the opportunity to

[50] Daniel Miller, *Stuff* (Cambridge: Polity Press, 2013), p.122.

build the world anew afforded by the genre, Mandel's invention of "The Museum of Civilization" persuasively suggests that there is something to be held onto in the man-made, everyday objects rendered useless by the end of electricity and technological world systems.

Curated by Clark, several years into his life at the Severn City Airport terminal-turned-township, the Museum of Civilization displays defunct devices such as 'the laptops, the iPhones, the radio from an administrative desk, the electric toaster from an airport-staff lounge, the turntable and vinyl records' (p.233). The museum materializes Brown's claim that 'We begin to confront the thingness of objects when they stop working for us....The story of objects asserting themselves as things, then, is the story of a changed relation to the human subject'.[51] The quotidian, broken artefacts exhibited in the museum, stripped of their use, monetary and exchange values, are artistically and politically invaluable because their impracticality symbolizes the end of capitalist society. The communication and information technologies on display once provided a vital means of people connecting with one another and accessing knowledge. They thus grant museum visitors access to the oral histories, social practices, and processes of knowledge production of a by-gone information age, processes of historical documentation vital to the survivors' ability to learn from the past and rebuild more sustainable and inclusive notions of culture and civilization.

The remediation of defunct modern technologies as art objects and cultural artefacts in the postapocalyptic museum articulates the abundant storytelling capacities of technological objects. In *The Digital Sublime*, Vincent Mosco argues that 'cyberspace is a mythic space, one that transcends the banal, day-to-day worlds of time, space, and politics'.[52] Mosco's analogization of the digital realm to mythic storytelling implies that on-demand access to cyberspace as a place for people to work, connect, explore, and play provided by smart phones and computers has made it possible for humans not just to read myths, but to experience and inhabit them daily. As such, the quotidian experience of technology has fundamentally changed *how* people engage with narrative, a transformation in narrative reception which,

[51] Bill Brown, 'Thing Theory', *Critical Inquiry*, 28.1 (2001), 1-22 (p.4) <http://www.jstor.org/stable/1344258>[accessed 22 September 2024].
[52] Vincent Mosco, *The Digital Sublime: Myth, Power and Cyberspace* (Cambridge: The MIT Press, 2005), p.13.

as the character's predilection with the stories contained by technologies shows, prevails twenty years after technology has collapsed. This matter of the techno-evolution of storytelling is most persuasively expressed by the Clarinet. The ambition of the Symphony's Shakespeare performances is 'to cast a spell...The lives they brushed up against were work-worn and difficult, people who spent all their time engaged in the tasks of survival (p.151). However, questioning the reasoning of the Symphony's return to traditional art and literature, the Clarinet remarks 'Survival might be insufficient, she'd told Dieter in late-night arguments, but on the other hand, so was Shakespeare' (p.289). Shakespeare is insufficient because, unlike Shakespeare's similarly plague-ridden society, the Symphony's audience have 'seen electricity, they'd seen everything, they'd watched a civilization collapse, and Shakespeare hadn't' (p.289). In other words, the sense of "world", or alternative possible worlds possessed by contemporary readers who have experienced such wonders as airline travel and the Internet far exceeds that of Shakespeare's audience for whom opportunities to travel to places beyond their hyperlocal environment were only imaginatively afforded by folklore or plays.

Through the post-technological setting, Mandel deprives technology of its programmed function and habitual uses to attend to its narrative essence. Her attentiveness to the immaterial qualities sustained by technology in an otherwise highly material and object-oriented reality emphasizes the philosophical role played by digital technologies in allowing people to experience a reality which exists beyond the physical environment. This speaks to the eccentricities of VR as a technological medium which is at once material and immaterial, interactive and immersive. A credit to Mandel's authorial dexterity, *Station Eleven* is a strong example of how storytelling can incite readers to think differently about technologies as banal as WiFi and, as I explore in the following section, how technologies can incite new ways of engaging with texts.

From Shakespeare to sci-fi; surveying the meta-literary modes of *Station Eleven*

Patricia Waugh defines 'metafiction' as 'a term given to fictional writing which self-consciously and systematically draws attention to its status as an artefact in order to pose questions about the relationship

between fiction and reality'.[53] Rudimentarily, VR is an intrinsically metafictional medium because of the blurring of fiction with reality contained by the oxymoron "virtual-reality". More complexly however, the metafictional quality of VR experiences can depend on whether an experience has been a technological success or failure. "Successful" VR is typically predicated on the viewer forgetting they are wearing a headset and momentarily believing that the virtual environment is "real". In other words, and in direct opposition to the orientation of metafiction, VR experiences should draw the users' attention *away* from the mediating technological artefacts. However, as explained in my thesis Introduction, I am fascinated by how a "failed" or non-immersive VR experience draws the user's attention *towards* the highly technologically and materially mediated quality of the experience, thus producing complex, experiential metanarratives about the relationship between humans, technology, storytelling, and reality. In this sense, my literary interests in VR reside foremost in the metafictional capacities of the medium. These interests align with those of digital theorists such as Jay Bolter who, instead of transparency, 'strive for *hypermediacy,* an intensive awareness of and even reveling in the medium'. [54] This section explores how Mandel metafictionally attends to the complex mediation of the human relation to stories by technology. In this sense, to borrow Bolter's terminology, I deal with *Station Eleven* not merely as a *metafictional* work, but as a literary example of 'hypermediacy'.

A play about 'A tired king at the end of his reign, perhaps not as sharp as he had once been, contemplating a disastrous division of his kingdom' (p.326), Craig Dionne describes *King Lear* as 'Shakespeare's most nihilistic narrative about cosmic decay'.[55] It could therefore be regarded as one of the first early modern apocalyptic narratives. For the audience of the play and the reader of *Station Eleven* alike, Arthur Leander's on-stage death in the book's opening chapter is not the story they anticipated. Thwarting narrative expectation, Mandel's intertextual appeal to Shakespeare as a nested story prefaces the novel as an interrogation of popular staged endings in which contextually and culturally subjective experiences of crisis

[53] Patricia Waugh, *Metafiction: The Theory and Practice of Self-Conscious Fiction* (London: Routledge, 2002), p.2.
[54] Jay Bolter, *Writing Space: Computers, Hypertext and the Remediation of Print,* 2nd edn (New Jersey: Lawrence Erblaum Associates, 2001), p.25.
[55] Craig Dionne, *Posthuman Lear: Reading Shakespeare in the Anthropocene* (Maryland: Project Muse, 2020), p.31.

are forsaken for a homogenized ideal of "the world". However, Mandel's literary project is less a confrontation with Shakespearean plots than a creative reinterpretation of them. As 'The King stood in a pool of blue light, unmoored' (p.3), Shakespeare's tragic hero is visually recast in an electric context. As the text's opening line, this technological restaging establishes *Station Eleven* as a novelized remediation of traditional forms of storytelling in the digital age. By imposing the death of a contemporary onto the *King Lear* script, Mandel playfully considers what a contemporary, technologically informed version of the play may look like. The answer is not quite a play at all, but a literary depiction of the interactive principles of VR.

Jeevan, one of the novel's main characters, throws himself at the stage to perform CPR on Arthur after the actor collapses. On stage, he considers how 'the dropped curtain closed off the fourth wall and turned the stage into a room' (p.5). Later re-emerging from behind the curtain, Jeevan sees that 'the audience was gone' (p.9). Here, the distinction between audience member and character, between staged space and "real" space, collapses, inviting a reading of *Station Eleven* as the version of *King Lear* that never ended. This breaking of the fourth wall is not only a key characteristic of metafiction. It also stages the tendency amongst late twentieth century media theorists to analogize computer users to theatrical audiences when describing the idea of interaction in the world of computing. In Brenda Laurel's theatre analogy, computer or VR users 'are like audience members who can march up onto the stage and become various characters, altering the action by what they say and do in their roles'.[56] As an audience member watching the staged crisis narrative devolve, Jeevan embodies and mirrors Mandel's own reader. His transgression onto the stage and instantaneous metamorphosis from audience member into character serves as an epiphanic, self-reflexive moment for both Jeevan and the reader. While he does not save Arthur's life, Jeevan leaves the theatre 'exhilarated, because he'd wondered all his life what his profession should be, and now he was certain that he wanted to be a paramedic. At moments when other people could only stare, he wanted to be the one to step forward' (p.11). Before that evening, 'Jeevan had been a paparazzo' (p.9), the reader later learning from the many flashbacks detailing Arthur's rise to fame that Jeevan had spent much of his career

[56] Brenda Laurel, *Computers as Theatre* (California: Addison Wesley, 1991), p.16.

stalking Arthur's house, hunting for tabloid-worthy glimpses into the celebrity's personal life. Jeevan's career U-turn from paparazzo to paramedic, from relentlessly "shooting" Arthur with a camera to trying to save his life, represents an ethical shift in his engagement with stories and the individual subjects inhabiting them. This affirms the ethical charge inherent to interactive forms of narratives like VR and their sway against the passive, voyeuristic consumption of stories definitive of today's popular culture.

The fallibility of the fiction-reality distinction represented by Jeevan's audience-to-character transformation and inherent to both metafiction and VR is a recurring motif within *Station Eleven.* Bearing the same title as the novel, Miranda, Arthur's first wife, writes a comic book series of two volumes, "Station Eleven" and "The Pursuit", which Arthur gives to Kirsten just before the world as they knew it collapsed, and which she has preserved and memorized twenty years later. The comic series, like the novel, is a story of post-apocalyptic survival: 'A hostile civilization from a nearby galaxy has taken control of earth and enslaved Earth's population, but a few hundred rebels managed to steal a space station and escape' (p.83). Passages from the comic book splice the novel throughout, setting up the series to be read in parallel to the novel. Extraterrestrials and deep space aside, the similarities between the two versions of *Station Eleven* invite Kirsten to imagine a 'parallel universe where we boarded Station Eleven and escaped before the world ended' (p.202). The graphic novels seemingly engender the same escapist dreams dolled to the townships by the Travelling Symphony through their Shakespeare performances. However, whereas the Symphony try to help people remember 'what was best about the world' (p.38), the comic books allow Kirsten to imagine an alternative future in which the best of the world remains to be seen. August, explaining the theory of multiple universes to Kirsten, says that 'given an infinite number of parallel universes, there had to be one where there had been no pandemic' (p.200). Struggling to believe in August's theory, Kirsten asks some of the older Symphony members for confirmation. It transpires that no one else is familiar with the idea of the multiverse, and Kirsten describes it as 'frankly maddening given how much time these people had to look things up on the Internet before the world ended' (pp.199-200). However, what Kirsten fails to realize is that the multiverse theory is contained by the comic books she holds so dearly, and does not need to be proven by recourse to science or the Internet.

Mandel's account of Miranda's near life-long comic book project shows how the comic strips are scenically and narratively inspired by Miranda's personal experiences and memories. A restaurant visited in the earliest days of her relationship with Arthur inspires 'a room like this in the Undersea, a subterranean place made of wood' (p.87). The story of escaping earth dramatizes her 'thoughts of freedom and imminent escape' (p.89) as her relationship with first boyfriend, Pablo, is coming to an end. A dinner party to celebrate Miranda and Arthur's anniversary hosted in their Hollywood home is replicated with comical accuracy, the pretentious comments of one guest, "I spent some time in the Czech Republic, you know, in Pr*a*ha..." (p.332) mimicked word for word. Later in life, her sense of isolation in Hollywood during her failing marriage to Arthur is reflected in the Undersea people's desire to go home, to find grounding after being suspended in deep space for so long. In this complex entanglement of the artists' personal life with the fictional world of the Station Eleven comics, realism and fiction become indecipherable. The comic book world might therefore be said to be just as "real" as the world of the novel.

This approach to other fictional worlds as equally possible realities incited by the meta-literary parallelism in *Station Eleven* serves as an important reading guide for Mandel's reader. The ludic time travel between pre- and post-collapse worlds and oscillation between many different character perspectives in the novel can make for a disorienting reading experience. The reader's habitual response to such a multiversal approach to plot, as learned from traditional literary theory, is to determine the primary reality and the authoritative narrative voice. In this approach, the purpose of secondary character perspectives and scenes temporally outside of the "main story", such as flashbacks and flashforwards, is to give metaphorical clarity to the ontological centre of the novel. The theory of multiple universes, synonymous with the idea of "the multiverse" made popular by emerging VR technology, is put to literary work in *Station Eleven* through the near-equal structural division of the book's content across each character perspective and each pre- and post-collapse timeline. This thwarts the reader's learned impulse to establish a hierarchy of realities or to reduce some worlds or beings as less real or narratively significant than others. As such, Mandel's ambitious approach to metafiction aligns with the case I am making for VR as a means of making other possible worlds not just imaginable, but corporeally experiential and realisable.

An object-oriented approach to fiction

The metafictional modes operating with *Station Eleven* demonstrate an overt overlap between art and life, between the fictional and the real. However, the biographical account of Arthur's pre-collapse rise to fame, which oscillates with Kirsten's post-collapse journey, issues a warning about when the blurring of reality with fiction goes too far. As an actor, Arthur embodies the fiction-reality dualism replayed throughout the novel and definitive both of VR and metafiction. In Chapter 39, two weeks before his death, Miranda meets with Arthur and as he speaks to her, has the 'odd impression that he was performing a scene' (p.211). His best friend, Clark, has the same realization over a catch-up meal, where he had 'thought he was meeting his oldest friend for dinner, but Arthur wasn't having dinner with a friend, Clark realized, so much as having dinner with an audience' (p.111). In Arthur, life imitates art too much. This loss of authentic self chimes with the dystopian fears of VR as an immersive technology which can cause users, as Frederick Aardema and his co-writers claim, to have a 'dissociative experience (depersonalization and derealization), including a lessened sense of presence in objective reality as the result of exposure to VR', and the alienation of readers from realism in metafictional literature.[57] Kirsten's intimate relationship with textual objects, by stark contrast, represents the more agential, interactive modes of narrative engagement inherent to the VR user experience which mediate the technology's risk of life and reality being rendered meaningless. Here, Mandel's interest in the stories contained by technological objects is extended to literary objects, begging a question of what an attentiveness to the stories contained by objects might entail when the object in question is itself a story.

While 'There were countless things about the pre-collapse world that Kirsten couldn't remember- her street address, her mother's face' she 'did remember Arthur Leander (p.41). On the night of his sudden death and the end of civilization itself, Arthur had 'pressed two comic books into her hands' (p.41). Kirsten

[57] Frederick Aardema, Kieron O'Connor, Sophie Côté, and Annie Taillon, 'Virtual reality induces dissasociation and lowers sense of presence in objective reality', *Cyberpsychology, Behaviour and Social Networking,* 13.4 (2010), 429-435 (p.430) <10.1089/cyber.2009.0164>.

continues to carry these comics and the connection to her pre-collapse life that they contain into adulthood, in a backpack in which 'she carried as little as possible' (p.65). This detail emphasizes the context of resource scarcity inhabited by Kirsten and throws the value of the text objects she carries into sharp relief. Metaphorically written over the future-oriented visions of space illustrated on the inside pages is Kirsten's personal version of history, a tentative tie to her pre-collapse childhood made tangible and material by the softening edges of the pages and fading ink of its text. After spotting Leander in a tabloid magazine while scavenging for items in an abandoned house with August, Kirsten pledges to go through 'every magazine she could find in search of him. She collected fragments, stored in a ziplock bag' (p.40). Looking at and memorizing these paparazzi images and stories is a 'steadying habit' (p.66) for Kirsten. Her psychically stabilizing and genealogical uses of both the sci-fi comics and magazine fragments constitute a highly affective interrelation between collector and collection. It serves as an example of what Chia-Chieh Mavis Tseng calls 'cognitive outsourcing', the movement of knowledge and memory from brain to objects and the humans' subsequent dependency on these things as material extensions of the mind.[58]

Mandel's rescripting of the comic's meaning from the arrangement of words and images to the text's extratextual, material properties invokes the replacement of 'textual hermeneutics with a hermeneutics of material things' constitutive, according to Reijers and Coeckelbergh, of the empirical turn in philosophies of technology.[59] This treatment of stories as material things or tools to be *used* rather than *read* reflects humanity as a toolmaking and tool-using species central, and incites a discursive idea of "using text". The idea of "using text" depicted through Kirsten's corporeal relation to the material comic book is analogous to Ryan's description of the 'reading dysfunctionality' available in digital forms of narrative like VR.[60] As Ryan states, 'The reliance of digital texts on the computer, a highly functional tool, takes dysfunctionality to unprecedented levels and opens a wide range of possibilities, since computers have many practical

[58] Chia-Chieh Mavis Tseng, *Memory Made, Hacked and Outsourced: How the Twenty-first Century Anglophone Novels Remember and Forget* (Taipei: Taipei Medical University, 2023), p.6.
[59] Wessel Reijers and Mark Coeckelbergh, *Narrative and Technological Ethics* (New York: Springer International Publishing, 2020), p.27.
[60] Ryan (2015), p.157.

functions, each of which can be subverted in a distinct way'.[61] Mandel affects this abstraction of functionality through the post-technological context of *Station Eleven* in which both technological devices and texts are deprived of their habitual purposes.

Applied to texts, reading dysfunctionality correlates with the self-reflexive, meta-literary modes used by writers to exploit the habitual functions of fiction, and to thwart the reader's narrative expectations. However, contrary to many metafictional works, this idea of *using* text is not to render the novel *useless*, nor devoid of meaning. On the contrary, Mandel draws on the binding power of the comic book as a material object which Kirsten uses, rather than reads, to subvert normative ways of engaging with texts and to employ the textual object as an alternative plotting strategy. In doing so, Mandel reconciles the meta-literary modes operating throughout the novel with the possibility of narrative resolution typically disavowed by metafiction, in turn approximating the reconciliation of immersion and interactivity supposedly only possible within VR.

Unbeknownst to Kirsten, the comics in her possession were written by Arthur's first wife, Miranda. The lack of 'biographical information in either issue, initials in place of the author's name' (p.42) add to the impression of the comic as an unauthored, non-human object. The story of Arthur's pre-collapse rise to fame and the firsthand accounts from the lovers and friends in his life take time to develop relevancy to Kirsten's post-collapse life with the symphony. However, these seemingly unrelated lives are revealed to be structurally anchored by the comic book, an object circulated between the hands of Miranda, Arthur, Kirsten, and Clark. Before Arthur's on-stage death, Miranda gives Arthur two final copies of her privately published comic books. That same evening, he gives the comics to the child Kirsten, feeling a little guilty as 'Miranda had intended them for him, but he didn't want the comics because he didn't want possessions. He didn't want anything except his son' (p.323). In its transition from the pre- to post-apocalyptic world, the comic is materially unscathed, albeit a little 'dog-eared now, worn soft at the edges' (p.42). In this sense, it is the comic book as a material object that drives the plot. Mandel's use of the comic book as the anchor

[61] Ryan (2001), p.137.

of *Station Eleven* is an object-oriented plotting strategy in which a non-human object stands in for the human narrator. According to Caracciolo, such 'material anchors are human-made objects that transcend their everyday usage and thus elude anthropocentric grasp'.[62] The potential of such an approach to narrative is most persuasively articulated through the face-off between Kirsten and the Prophet.

After tracing the pre-apocalypse lives of Miranda, Arthur and Jeevan for most of the novel, the story eventually returns to the present (but crucially, not *primary*) context of Kirsten and August searching for the missing symphony members three days after their disappearance. While walking to the group's original destination of the airport terminal, Kirsten and August are confronted by the Prophet and his fellow doomsday cult members, armed with machetes and shotguns and demanding the return of Eleanor, the stowaway child bride to be. However, this encounter is only secondarily about rescuing the kidnapped symphony members and saving Eleanor from her fate. Foremost, it is a dramatization of the conflict between metafiction and plot wrestled with by Mandel. Mandel's irreverence to the prophetic role of narrative is evidenced by her metafictional disruption of Shakespeare's end-oriented *King Lear*, her networked, nonlinear approach to narrative structure which occludes the possibility of the reader predicting where the story of *Station Eleven* is headed, and the renouncement of narrative authority entailed by her object-oriented approach to plot. In combination, it is through these metaliterary strategies that Mandel declares that her objective as a fiction writer is not to predict the future. The Prophet, as the embodiment of the prophetic and plot-driven approach to narrative opposed by Mandel, thus emerges as the antagonist of the story, his sermons convincing only when coupled with weaponry. With this, Mandel's personification of genocidal prophecy in the Prophet asserts the inherent violence of narratives which attempt to predict the future.

Faced by the Prophet's rifle and the immanence of death, Kirsten is subjected to a harangue about the cult being 'the light moving over the surface of the waters, over the darkness of the undersea' (p.303). Recognising the phrase, 'the undersea', Kirsten realises that the Prophet is quoting the Dr. Eleven comic

[62] Caracciolo (2023), p.26.

books. He has merged cherry-picked elements of the Book of Revelation with lines from the sci-fi comic. This points to both the quasi-biblical nature of science fiction in its promises of technological miracles and the infinite possibilities of outer space, and the flimsy constructedness of the Prophet's ideologies. In response, Kirsten imitates the role of the adversary: "We long only to go home", Kirsten said. This was from the first issue, *Station Eleven.* A face-off between Dr. Eleven and an adversary from the Undersea' (p.302). Evolving into an obscure imitation of the comic book conflict, the Prophet is held spellbound by Kirsten's quoted speech and the fantasy that he is Dr. Eleven. This delusion is alluded to earlier in the novel through the Prophet's dog's name, 'Lulu', the same name as Dr. Eleven's pet. No longer looking at her, but 'through her, a smile on his lips' (p.303), Kirsten distracts the Prophet just long enough for a renegade member of his cult to shoot him dead before Kirsten is wounded by a bullet.

The conflict between Kirsten and the Prophet is a metaphor for the dichotomous relation between metafiction and teleologically driven forms of narrative. However, it is not the victory one would expect. It is not metafiction that triumphs over prophecy. Kirsten does not defeat the Prophet by laying bare his illusion. Instead, she deploys the immersive effects of fictional storytelling as a distraction and means of defence against the Prophet. This discursive utilization of the sci-fi comic symbolically implies that approaching texts as objects does not occlude the immersive potential of fiction. This conflict serves as the resolution of the novel, not because of Prophet's death, but because it solves the mystery of who owns the second comic book copy. The comic is 'from a series no one else in the Symphony had ever heard of' (p.109) and is neither 'part of any comic book series' (p.109) that Diallo, a librarian in the post-collapse world, had seen. Sitting by the deceased Prophet, Kirsten finds 'a page torn from a copy of Dr. Eleven, Vol. I, No. I: Station Eleven, the first page of Station Eleven she'd ever seen that hadn't come from her copies of the book' (p.304). She asks his body, 'Who were you? How did you come to possess this page?' (p.305). A privately published work, Miranda does not intend for the series to be read en masse. The significance of the comic therefore lies in the revelation of the Prophet's possession of the comic book, binding Kirsten and the Prophet as the only two readers who possess the remaining copies. Kirsten and Tyler, supposed antagonists,

are in fact intimately connected to one another through their relationship to Arthur, the Prophet's father, and by their use of the comic as children to navigate an uncertain epoch of postapocalyptic survival.

After surviving the face-off with the Prophet, Kirsten is reunited with the Symphony who, it transpires, were just a few miles ahead on the road. Together again, spare the loss of Dieter who died after a fatal reaction to the chloroform used by the Prophet's men to kidnap him, the collective finally reach the Severn City airport, where they are reunited with Charlie and Jeremy. Through this reunion, Mandel cites the Museum of Civilization as both the destination of the character's journey and final resolution of the novel. However, the possibility of narrative closure provided by this reunion of old friends and arrival at a place which encapsulates Mandel's object-oriented approach to narrative is undermined by the atemporality of the airport in which the museum is housed.

Inhabited by some since the collapse twenty years earlier, the airport terminal is a liminal space in which its residents exist in a perpetual present, infinitely waiting to board a plane which will never arrive. The temporal juxtaposition between the technological past archived within the museum and the state of ontological limbo inhabited by the airport residents raises an important question about what an object-oriented approach to reality means in practical terms of humanity's ability to move towards a better future. At the end of the novel, Clark invites Kirsten up to the air traffic control tower. Looking through a telescope poised towards a space on the southern horizon, Kirsten sees 'plainly visible on the side of a hill some miles distant: a town, or a village, whose streets were lit up with electricity' (p.311). The implication here that the electrical grid may have only shut down locally and that there is a place where some form of technological life continues as normal reframes life without technology as a choice, as opposed to a forced condition that the postapocalyptic survivors must adapt to.

For some readers, sufficiently seduced by Mandel's depiction of a simpler life without functional technologies, the sighting of lights may evoke dread, rather than relief. For others, the lights present an opportunity to stand on the precipice of a new technological future. This dilemma of whether to surrender to and remain in an object world of defunct, but narratively abundant, technologies, or to seize the opportunity to move towards a new technological age, speaks to the limitations and contradictions of object-

oriented approaches to reality. While fundamentally environmental in its motivations, the occlusion of human instrumentalization and agency in the turn towards the value of things in themselves means that object-oriented thinking cannot be put to the practical work required to deter the types of crises depicted by post/apocalyptic fiction writers like Mandel. The dilemma is left unresolved, as the novel ends in the airport terminal and the question of whether electricity truly does exist somewhere in the distance remains unanswered. Yet, this lack of narrative closure is integral to Mandel's conclusive assessment of the narrative possibilities inherent to technology.

In the final lines of the novel, Clark, 'looking at the planes that have been grounded for twenty years', concedes that he 'has no expectation of seeing an airplane rise again in his lifetime, but is it possible that somewhere there are ships setting out? If there are again towns with streetlights...then what else might this awakening world contain?' (p.323). By distancing technological objects from quotidian human life, Mandel restores a pre-digital age understanding of technology as synonymous with possibility. In the introduction to this chapter, I claimed that the transformation in how people communicate with one another or receive information by pervasive use of digital devices "should" be included in contemporary theories of reading. Upon reflection, and after analysing *Station Eleven*, this is a highly techno-deterministic claim which does not consider the capacity of fictional literature not just to accurately depict and adapt to accelerative technological change, but to intervene in it and reimagine how the human relationship to technology could be different. In this sense, the question of possibility symbolized by the sighting of functioning technology at the end of *Station Eleven* makes an invaluable distinction between the narrative properties of VR and literature. While VR is a medium which is technologically expanding the possibilities of narrative, literature is a materially sustainable site from which the possibilities of technology can be reimagined or negotiated. Unlike VR, literature allows readers to contemplate their relation to technology from a critical distance in a way that will, I argue, be crucial to sustaining human agency in an age of continually advancing technologies.

Conclusion

Through a post-technological script, Mandel reimagines digital and information technologies as things that can be read, and stories as things that can be used. In this chapter's introduction, I hypothesized that texts as technical objects could invoke the reader's body, and that literature could therefore approximate the highly experiential mode of narrative engagement unique to VR. Mandel deals with the experientiality of texts at a thematic level, by figuring characters as readers or audience members. In this sense, the reader can only experience body-led or phenomenological forms of reading vicariously and imaginatively through the character's virtual bodies. This suggests that reading literature is invariably a cognitive act and that the body plays a peripheral role in a reader's engagement with text. However, this is not to say that VR is a superior medium to literature. The compatibility of immersion and interaction is a necessary condition of VR; a user cannot act within a virtual environment without first feeling part of the visual world depicted. In literature, however, the incompatibilities of immersion and interaction require the reader to foresake the immediate narrative pleasure of immersion for the intellectual satisfaction of meta-literary modes such as self-reflexivity. These necessary compromises are evidenced by the occlusion of a conventional plot and temporal structure in *Station Eleven*, and the way the story drifts towards an ending of sorts. Yet as my reading of Mandel's fictionalization of the tension between metafiction and narrative conventions like plot has hopefully shown, it is to such narrative compromises that *Station Eleven* owes its richness, and which allows VR and literature to be understood on their own, but equally valuable, terms.

CHAPTER II

Don DeLillo's *The Silence*: An Unreadable Text

The epistemic anxieties of fiction in the digital age

The 1980's saw the emergence of electronic incarnations of traditional textual forms such as hypertexts, and with it, more dynamic interactions between people and mediums. This opportunity to rethink books as more than static objects and readers as more than passive recipients has since given way to a cultural anxiety about the increasing lack of a material grasp of reality presented by pervasive digital technologies. As Katherine Hayles, known for her contribution to electronic literature theory, says, 'The interfaces connecting humans to their technical surroundings become more and more transparent, while the networks connecting us become more and more ubiquitous'.[63] This suggests that literary texts written about or within the contemporary technological age constitute a particular type of epistemically anxious fiction which, intentionally or implicitly, draw on the materiality of the print form to reckon with an increasingly immaterial, and thus unknowable, digital reality.

Don DeLillo's *The Silence* (2020) thematizes the idea that literary stories written in or about the digital age materially constitute anxieties about the dematerialization of reality by digital technologies. Like Mandel, DeLillo uses the negation strategy of the apocalyptic script to imagine what the world could look like after information and communication technologies fail. Unlike Mandel, DeLillo's book is apocalyptic-question mark. It is precariously an event, uncertainly the end of the world. As such, DeLillo defines 'crisis' as a crisis of knowledge. According to Ellingson, 'Knowledge grounded in bodily experience encompasses uncertainty, ambiguity, and messiness in everyday life'.[64] Using this definition of embodied knowledge, I interpret DeLillo's intentionally ambivalent approach apocalypse and negation of technology as a question of what be*comes* of knowledge when the primary means of knowing disappears. The short story answers

[63] Holger Pötzsch, 'Posthmanism, Technogenesis, and Digital Technologies: A Conversation with N. Katherine Hayles', *The Fibreculture Journal*, 15 December 2014. <https://fibreculturejournal.org/fcj-172-posthumanism-technogenesis-and-digital-technologies-a-conversation-with-katherine-n-hayles/> [accessed 16 January 2023] (para 14 of 52).
[64]Ellingson, p.244.

by imagining five friends' subjective experiences of sudden digital severance in a Manhattan apartment, and their intuitive interpretations of the situation in the absence of functioning communication and information devices. I will argue that the experiential forms of knowledge production affected by the uncertain material environment in *The Silence* implies a necessary return to body-led forms of knowledge production which have been superseded by both the glorification of objectivity by the global media and society's epistemological dependence on media technologies as prescriptive sources of knowledge about the world around them.

However, the challenge of embodied or tacit knowledge for the fiction writer is that it necessarily occludes textual representation. As Beverly Sauer clarifies, 'The notion of tacit knowledge implies silence. The term describes what cannot be articulated in language or formulated as algorithmic rules or generalized procedures.[65] Embracing the end of language professed in the book's title and essential to Sauer's understanding of embodied knowledge, I make the paradoxical claim that *The Silence* is not a book to be "read" at all. While Mandel navigates the bodily limitations of reading in *Station Eleven* by drawing on texts and technologies as objects which *imply* the readers' body and by depicting her characters as readers, DeLillo, through the overtly material substance and illegible character of *The Silence,* emphasizes his story as a thing to be sensorily experience, much like the VR user experience, by his readers' body directly.

The technological mediation of apocalypse

Much of DeLillo's oeuvre depicts technology as a violent, disastrous force. In his conception, technology is not disastrous in the life-threatening sense of the emerging pandemic of smart phone addiction, the development of nuclear weapons, nor the global spread of disease by international travel. As Ross Maffey describes the themes central to DeLillo's *White Noise* (1985), *Cosmopolis* (2003), and *Zero K* (2016) the writer 'repeatedly draws attention to the coverage of disasters mediated through technology, and the effects

[65] Beverly Sauer 'Embodied Knowledge: The Textual Representation of Embodied Sensory Information in a Dynamic and Uncertain Material Environment', *Written Communication*, 15.2 (1998) 131-169 (p.142) <https://doi.org/10.1177/0741088398015002001>

imposed on his characters in his work'.[66] In DeLillo's understanding, it is the *mediation* of disaster by media technologies such as the TV, and the experiential distancing of audiences from the realities of crisis taking place in other parts of the world by screens, in which both the violence of technology and the dystopian effects of postmodern America reside. In *The Silence*, DeLillo steps away from the cautionary tone of his earlier work about the mediation of reality by media technologies to offer a more nuanced epistemological inquiry into how different *types* of technologies narratively mediate people's experience of catastrophe in diverse ways. In doing so, DeLillo leans into postphenomenology, a philosophy of technology which, as Martin Ritter explains, 'focuses on diverse effects of particular technologies instead of speculating on the essence of technology and its general impact'.[67]

A systems crash on Super Bowl Sunday, year 2022, catalyzes the narrative events. The "crash" is experienced on two distinct conceptual planes by the five main characters. The book begins with Jim Kripps and Tessa Berens flying back from Paris to Manhattan when 'The plane began to bounce side to side' (p.15) and the screens in the aircraft cabin go blank. Meanwhile, Diane Lucas, Max Stenner and a former student of Diane's named Martin, are sitting in front of the TV in an eastside Manhattan apartment, waiting for Jim and Tessa to join them, when the screens go blank there too. Temporarily disconnected from the external world, coursing over 'oceans or vast landmasses' (p.7), Jim contemplates how individualism is subsumed by the identification processes of airline travel: 'His name was John Kripps. But for all the hours of this flight, his name was his seat number' (p.6). As a technological environment, this atomization of individuals into passengers symbolizes identity loss in the digital age. Offering a romantic reading of the identity loss of airline travel, Valeria Luiselli claims that commercial flying allows passengers to indulge in a rare perception of the body as a fluid thing which can soar into the sky and 'bring them closer to the essential

[66] Ross Maffey 'Changing Channels of Technology: Disaster and (Im)mortality in Don DeLillo's *White Noise*, *Cosmopolis* and *Zero K*', *C21 Literature: Journal of 21st-Century Writings*, 6.2 (2018), 1-23 (p.3) <https://doi.org/10.16995/c21.74>

[67] Martin Ritter, Philosophical Potencies of Postphenomenology', *Philosophy & Technology*, 34 (2021), 1501-1516 (p.1501) <https://doi.org/10.1007/s13347-021-00469-0>.

nature of what man first glimpsed in the flight of birds'.[68] In *The Silence*, however, Jim and Tessa wrestle with, rather than embrace, the disembodying effect of the aerial environment.

Motivated by the boredom of a long-haul flight, Jim reads the information from the small screen just below the overhead bin and starts to 'recite the words and numbers aloud' (p.3). Meanwhile, his wife, Tessa, is writing down some of the things they saw and the food they ate during their trip in a small notebook, "I'm thinking back to the main course," she said. "I'm also thinking about the champagne with cranberry juice." (p.4). Here, Jim embodies the Reader and Tessa, 'a poet whose work appeared often in literary journals' (p.7), the Writer. In both cases, a distinctly literary attempt is made to grapple with the emptiness of language within the cabin, thus foregrounding *The Silence* as a metafiction about reading and writing in the digital age. As the detached narrative voice states, 'Here, in the air, much of what the couple said to each other seemed to be a function of some automated process, remarks generated by the nature of airline travel itself [...] every word forgotten the moment sets down on the tarmac' (p.7). Detached from the "real" world viewable through the aircraft windows, words lose their referent in the plane. As such, aerial space and the technological plane environment aptly capture the fate of language in an age in which individuals increasingly communicate within digital environments.

Jim and Tessa deploy reading and writing to each perform their own embodying act of resistance against the futility of language within the technological non-place of the plane. By reading aloud the flood of arbitrary linguistic signs before him, details of 'Altitude, air, temperature, speed, time of arrival' (p.1), Jim allows 'these indicators to live a while, officially noted, or voluntarily noted- the audible scan, he thought, of where and when' (p.10). The point of reading here is not to understand the different flight metrics, information exchanged from cockpit to cabin for no obvious purpose other than to provide a little comradery between pilot and passenger, or to perhaps nullify the passengers' possible fears of crashing with the reassurance of scientific fact. Instead, by reading aloud, Jim exercises what Mickey Valley calls 'the

[68] Valeria Luiselli, *Sidewalks* (London: Granta Books, 2013), p.23.

phenomenological voice', the 'phenomenon of hearing oneself speak'.[69] This transformation of language into speech audibly affirms Jim's existence diminished by the assimilation of subjects into passengers within the aircraft. Tessa, on the other hand, uses handwriting to immortalize experiences in a 'book of memories' (p.12). In doing so, she mediates her anticipation of inevitable memory loss with increasing technological dependency, and her anxieties about near-future human obsolescence evidenced by her speculative remark "if we're all still alive, twenty years, ten years" (p.9).

By establishing the atemporal non-place of the aircraft cabin as the book's opening scene and by metafictionally placing both himself and his reader inside of this liminal zone, DeLillo analogizes the aerial environment to the writer's challenge of textual genesis in the digital age. In her study of air travel fiction, Erica Durante describes the plane as 'a limbic space saturated with uncertainty, a floating state between the terrestrial and aerial worlds'.[70] Durante's conceptualization of flying parallels the dualistically digital and physical nature of contemporary reality, an increasingly blurry context which thwarts habitual narrative representations of time, space and human. While this could present an opportunity for the fiction writer to transcend narrative frontiers, DeLillo figures the plane as an information-dense space in which, much like the internet and mass media, the distinction between meaningful and arbitrary information is indeterminate, thus suggesting that narrative is negatively inflicted by the digital age. DeLillo proposes a solution to this contemporary narrative challenge by summoning a return to bodily acts of reading and writing when the plane experiences turbulence and 'The seatbelt sign flashed red' (p.15). Jim's intuitive response is to look 'at the screen while [Tessa] went into a deeper crouch, her body nearly folding into her notebook' (p.16). In this precarious moment of technological failure, the couple instinctively reorient their bodies towards texts. Reading and writing no longer serve as a mere means of 'Filling time' (p.9) to cope with the banality and atemporality of the plane domain, but as a bodily reckoning with an uncertain and potentially life-threatening technological environment.

[69] Mickey Valley, 'Biometrics, affect, autoaffection and the phenomenological voice', *Subjectivity*, 11 (2018), 161-176 (p.162) <https://doi.org/10.1057/s41286- 018-0044-3>.
[70] Erica Durante, *Air Travel Fiction and Film: Cloud People* (London: Palgrave Macmillan, 2020), p.24.

While Jim and Tessa's experience of the system's crash takes place at the literally higher, experientially direct order of a near-fatal plane crash, Max, Diane, and Martin's 'crash' experience takes place indirectly through the television: 'The images onscreen began to shake. It was not ordinary visual distortion, it had depth, it formed abstract patterns that dissolved into a rhythmic pulse' (p.25). Here, the two dimensionality of screen imagery is abstracted and recharged with a spiritual aura. This surrealist remediation of the TV abstracts technology from its everyday function as a system for transmitting footage, prompting the trio to speculate over the possible explanations for the screen going blank. Martin, the physics student, hypothesizes that the Chinese government have 'initiated a selective internet apocalypse' (p.27). Diane jests that 'a snatch of dialogue coming from the blank screen' is "...not earthly speech, [...] "It is extraterrestrial." (p.27). Max dismisses the event as 'a communications screwup that affects this building and maybe this are and nowhere else' (p.30). The trio's crash experience in the confines of an apartment living room reduces the apocalyptic frame to a domestic, quotidian space. This constructed literary architecture of outside and inside establishes a polarity between the totalizing notion of apocalypse as a grand narrative and global event, and the more speculative and subjective understandings of catastrophe possessed by individuals with no reference to the "real" world events occurring outside of the apartment. This is not to say that the characters in *The Silence* cannot see outside. On the contrary, they actively *choose* not to look out of the window. As Diane asks herself, 'Why am I so reluctant to get up and walk to the window and simply look?' (p.104).

Forming a response to Diane's question, the reader is invited to follow Max outside, to wander from the fictional domain to the real world and back again. In line with Catherine Wessinger's definition of apocalyptic fiction as texts which 'depict tremendous violence that destroys a dissatisfactory social and natural order so that a new one may be created',[71] here chaos does ensue, 'people wrestling, throwing punches, a small riot here and there' (p.99). Yet the familiarities of the apocalypse genre end there. As he 'stands against a wall and watches' (p.98), Max's reception of the scene is thin, static, and strikingly lacking

[71] Catherine Wessinger, 'Apocalypse and Violence', in *The Oxford Handbook of Apocalyptic Literature* ed. by John J. Collins (Oxford: Oxford University Press, 2014), pp.422-440 (p.423).

in dimensionality, as if the two-dimensional world view learned from sitting in front of the television has transcended from the screen to ontologically flatten Max's experience of reality. Yet Max's own rhetorical question, 'Is it like this in other cities, people on a rampage, nowhere to go?' (p.98) echoes the knowledge problem posed by technological collapse. Without communication technologies, there is no way of knowing if this is a global crisis or just a localised incident. As such, rather than echoing DeLillo's earlier work about the voyeurism of mediatized crisis events, Max's disaffected venture outside in fact suggests there is a triviality to looking to the world 'out there' to prove or disprove that an apocalypse is *actually* taking place, one which hints to the fallacy of objective reality inherent to the apocalyptic tradition.

In *The Silence*, DeLillo superficially evokes the apocalypse tradition, only to negate the viability of such a seductively simplifying and sense-making paradigm. Discussing DeLillo's premillennial work, David Cowart claims that, as 'a postmodernist committed to representing the discontinuous contemporary moment, DeLillo is resistant to the seductive appeal of totalizing theories, comprehensive accounts of the phenomenal world and the human place in it'.[72] Metafictionally exhibiting his continued opposition to the totalizing tendencies of apocalyptic thinking, Part II of *The Silence* is strewn with familiar apocalyptic scenarios: 'Cyberattacks, digital intrusions, biological aggressions' (p.77), 'nuclear arms' (p.81), 'landslides, tsunamis, disappearing rivers, houses collapsing, entire buildings crumbling' (p.88), 'drone wars' (p.93), naming just a few. To borrow Mark Osteen's assessment of DeLillo's novelistic style, this terse anatomization of prevailing global concerns in contemporary life possesses 'an essayistic quality that typifies much of DeLillo's work'.[73] Through this excessive rhetorical litany of end-of-the-world tropes, DeLillo satirically flaunts the fiction writer's capacity to explain away catastrophe and to indulge his voyeuristic reader with the superiority of "knowing better" than the vulnerably unknowing characters. Michael Barkun claims that 'the essence of conspiracy beliefs lies in attempts to delineate and explain evil', a tendency for conspiracy beliefs evident in the questions of cause and blame circulating between the five

[72] David Cowart, *Don DeLillo: The Physics of Language* (Athens: University of Georgia Press, 2002), p.9.
[73] Mark Osteen, *American Magic and Dread: Don DeLillo's Dialogue with Culture* (Philadelphia: University of Pennsylvania Press, 2000), p.9.

characters in Part I.[74] As Tessa asks: "Who is doing this to us?" (p.88). By flooding his reader with the types of narrative explanations they expect from apocalyptic fiction, DeLillo in turn parodies the cultural inclination for conspiracy theories implicit in the popularity of post/apocalyptic fiction, a form of storytelling so appealing in an age of uncertainty because it gives narrative order and provisional explanations to the inherently inexplicable and unpredictable threat of immanent global crisis.

By leaving the infinite possible causes for the systems crash unexplained, DeLillo clarifies that the true horror of apocalypse resides in its unknowability. As the monologue commencing Part II of the book proclaims, 'Missiles are not soaring over oceans, bombs are not being dropped from supersonic aircraft. But the war rolls on and the terms accumulate' (p.77). Crisis is an eerily silent, imperceptibly ongoing event which, DeLillo appears to confess, makes the writer tasked with explaining what "crisis" means in the digital age feel a sadistic 'shred of nostalgia' for 'War that we can see and feel' (p.78). In this sense, the characters' speculative experience of apocalypse in the living room represents the non-empirical character of crisis in the digital age more accurately than the familiar apocalyptic scenes of primordial violence and mass hysteria happening on the streets below.

A few pages in, Jim and Tessa crash-land in Newark. Jim bares the physical signs of their direct experience of the systems crash: 'He had cut on his forehead, a laceration, bloodless now' (p.38). The couple note the other injuries amongst their fellow passengers whilst being driven in a van to a clinic from the crash site: 'One of the passengers had a twisted arm, missing teeth' (p.38). Despite the immediacy of Jim and Tessa's crash experience, neither can remember what happened, 'Jim Kripps tried to remember what he saw. He tried to remember being afraid' and Tessa had 'no sense of going through customs, no memory of fear' (p.38). Jim and Tessa retreat inward, joining the trio in the living room just over halfway through the story. Rather than debunking their friends' speculations about what *might* be happening outside with the facts of their own apocalyptic survival experience, DeLillo treats the narrative potential of this collision of two fundamentally different crisis perspectives with intentional indifference. After briefly describing 'the

[74] Michael Barkun, *A Culture of Conspiracy: Apocalyptic Visions in Contemporary America* (California: University of California Press, 2003), p.3.

flight and the events that followed and the spectacle of the midtown streets, the grid system, all emptied out' (p.70), the five individuals sit and eat as planned, an absurdly quotidian scene, given that Jim and Tessa had fallen from the sky earlier that evening.

This narrative disavowal of Jim and Tessa's hyperbolically apocalyptic experience makes a powerful statement about the non-hierarchical relationship between the empirical, objective depiction of crisis in the apocalypse tradition and the more speculative theories about the reasons for the crash exchanged between Max, Diane and Martin. The living room is a secluded, contained space where the characters are simultaneously separate from and a part of the fictional world of *The Silence.* This oxymoronic ontology matches the way readers learn about their own world through the epistemic distance afforded by fictional texts, thus establishing an epistemic equilibrium between DeLillo's readers and characters. This reader/character parallelism incites the domestic space as a metaphorically textual domain from which the characters collectively attempt to "read" the meaning of the systems crash, simultaneously explicating *The Silence* as a metafictional work. As Katherine Da Cunha Lewin states in her study of the spatiality of fiction, 'the seduction of thinking through the novel is how it allows us to engage with the world, whilst also thinking we are not quite of or in the world; it allows us a space to think about how the world functions with us in it, but also outside of it'.[75] While *The Silence* begins by comparing how the plane and screen technologies varyingly mediate the characters' crisis experience, these differences are collapsed by the reunion of the five characters in a space which architecturally represents the process of 'thinking through the novel' afforded to readers by fiction. Echoing Sturken and Thomas' point that 'the visions and metaphors of new technologies in large part create and define the social impact of those technologies' referenced in this thesis' introduction, the characters' retreat to the living room text space evokes a return to the literary genesis of cultural ideas about technology and posits fiction as a productive site from which readers can interrogate the disastrous aspects of the human relation to the technological world.[76] The problem posed by the

[75] Katherine Da Cunha Lewin, 'The reconnoiter inward: interiority and spatial aesthetics in the novels of Don DeLillo and J.M. Coetzee' (published doctoral thesis, University of Sussex, 2017) in University of Sussex Research Depository <https://hdl.handle.net/10779/uos.23459846.v1> [accessed 20 January 2023] p.11.
[76] Sturken and Thomas, p.3.

characters' metafictional return to the literary domain is that it entails a withdrawal from the world of action, implicitly excusing the reader from the action-driven ways of engaging with real-world crisis narratives motivating this thesis. However, I argue that by constraining the character's phenomenal experience of apocalypse to a walled room, DeLillo hyperbolizes the material borders of the book form and the novel opportunities for affective narrative engagement that such textual limitations afford the reader.

The Silence **is a text to be seen & felt**

At just 116 pages long, *The Silence* has an inherently reductionist and highly stylized quality. The spatial limitations of the short story form endow every word with great semiotic value. In a 1983 interview, DeLillo proclaimed that 'The writer is working against the age [...] and so he feels some satisfaction in not being widely read. He is diminished by an audience'.[77] In his review of Nathaniel Hawthorne's *Twice Told Tales*, Edgar Allan Poe claimed that 'The ordinary novel is objectionable, from its length as it cannot be read at one sitting, it deprives itself, of course, of the immense force derivable from totality [...] In the brief tale, however, the author is enabled to carry out the fullness of his attention, be what it may. During the hour of perusal the soul of the reader is at the writer's control'.[78] In this comparison of long and short story forms, Poe identifies short stories as a narrative form in which the writer is highly conscious of the value of the reader's attention and the time it takes to read. Contrary to his proclaimed diffidence to the reader, DeLillo's use of the short story form for *The Silence* thus suggests that the reader experience has played a determining role in the writers' narrative choices, thus foregrounding the text's parallels with the experiential modes of reading unique to VR.

However, in a relinquishment of authorial control over 'the soul of the reader', DeLillo leaves the task of explaining the meaning of the systems crash in the hands of his five main characters. The result is a dialogically driven text which reads as an absurdist play governed by a rule of unreason: a messy

[77] Thomas LeClair and Don DeLillo, 'An Interview with Don DeLillo', *Contemporary Literature,* 23.1 (1982) 19-31(p.29) <https://doi.org/10.2307/1208140>.

[78] Edgar Allan Poe, 'Review of Twice-Told Tales, by Nathaniel Hawthorne' in *Poetry and Tales,* ed. Patrick F. Quinn (New York: Literary Classics of the United States, 1984), p.586.

compilation of speculations, conspiracy theories, and slightly clichéd philosophies. It is a novella which cries out for the omniscient narrator to confirm or deny that the shutdown truly is the beginning of the apocalyptic end. These cries are left unanswered. The book's surrealist tone is affected by the characters' abrupt disconnection from media technologies, and the habitual modes of engagement and communication attached to them. Prior to the technological breakdown, waiting for the Super Bowl game to start, Diane says of her husband, "Max doesn't stop watching. He becomes a consumer who had no intention of buying anything. One hundred commercials in the next three or four hours" (p.21). Embodying the contemporary binge-watching and mindless consumption habits of today's technoculture, the consequences of technological dependency are seen most in Max when the screen goes blank. Watching television is transformed into a technological ritual as he leans forward and 'seemed to be trying to induce an image to appear on the screen through force of will' (p.43). His faith in technology is affirmed as he recites his own imaginary commentary of the unseen game, 'phantom microphone in hand', describing to an invisible camera how "Here on the sidelines, this team exudes confidence despite the spate of injuries" (p.50). Diane observes her husband's mimetic broadcast with stunned enjoyment, while also realising 'that Martin was speaking, although not necessarily to her' (p.50). This near-audible cacophony of individuals talking to themselves in the same room reflects the breakdown of meaningful communication in the digital age, and the rhetorical nature of speech within the echo chambers of social media. This crisis of language atrophied by modern communication devices is structurally represented by the numerically ordered chapters of Part I giving way to disordered monologues deciphered by a mere line break, and eventually, total silence, in Part II.

However, this reading of the book as a metafictional warning about the linguistic consequences of society's dependence on technology is curbed by the adoration for irrational, meaningless language collectively voiced by the characters throughout *The Silence*. Unprompted, Diane says quietly to Martin, "Jesus of Nazareth", knowing that, though 'He did not belong to a particular religion', the name 'carried an intangible quality that drew him into its aura' (p.43). Martin echoes this creed to language for its own sake as he recounts instructing his students to, when watching foreign films, 'Avoid reading the printed

translation of the spoken dialogue at the bottom of the screen. We want pure film, pure language' (p.51). For this severance of language from prescribed meaning and subsequent transformation of speech into performance art, Alex Preston describes the *The Silence* as 'Beckett for the Facebook age'.[79] According to Enoch Brater, in Samuel Beckett's plays, 'genre comes under stress' and 'the theater event is reduced to a piece of monologue and the play is on the verge of becoming something else, something that looks suspiciously like a performance poem'.[80] DeLillo takes evident cues from Beckettian reductionism through the minimalism inherent to the short story form and monologic prose. He not only thwarts the reader's expectations of the apocalypse genre but also challenges the most basic premise of a text as a readable thing, transforming *The Silence* into something that looks less like a book and more like a visual work. However, the text is necessarily distinct from Beckett's theatrical ouevre because the physicality of the book as a written text is critical to its meaning, and therefore a stage adaptation of *The Silence* would be in violation of the narrative's meaning.

This idea that textual materiality is integral to the narrative incites a notion of *The Silence* as a text not to be *read*, but to *seen* and *felt*. In a letter written to David Foster Wallace in 1995, DeLillo explains, 'The reason I use a manual typewriter concerns the sculptural quality I find in words on paper, the architecture of the letters individually and in combination, a sensation advanced (for me) by the mechanical nature of the process—finger striking key, hammer striking page. Electronic intervention would dull the sensuous gratification I get from this process—a gratification I try to soak my prose in'.[81] In this passage, DeLillo at once reveals a fascination with the materiality of words and the embodying experience of typewriting. While he pits 'electronic intervention' against analogue writing, I propose that VR, as a highly corporeal user experience, is an exception to DeLillo's stance against the disembodying encounters with stories

[79] Alex Preston, '*The Silence* by Don DeLillo review – Beckett for the Facebook age', *The Guardian*, 27 October 2020. <https://www.theguardian.com/books/2020/oct/27/the-silence-by-don-delillo-review-beckett-for-the-facebook-age> [accessed 18 November 2023] (para 1 of 5).
[80] Enoch Brater, *Beyond Minimalism: Beckett's Late Style in the Theater* (Oxford: Oxford University Press, 1987), p.3.
[81] David Foster Wallace, 'Letter to Don DeLillo, May 1995', *Don DeLillo Papers* (Austin: Harry Ransom Humanities Research Center, University of Texas at Austin), p.2.

perpetuated by digitized literary forms, and that VR and *The Silence* are in fact uniquely bound as body-led approaches to narrative reception.

DeLillo visually foregrounds *The Silence* as a text to be sensorily experienced by recycling the typescript font of his typewriter, an invocation of the graphic substance of language stressed by the sparse presence of text per page. By emphasizing the book's visible materiality, the writer incites his reader to engage with the book in multi-sensory ways, extending the 'sensuous gratification' that DeLillo gets from writing to the act of reading. This idea that textual materiality incites sensuous responses from readers is most provocatively demonstrated by the transformation of Albert Einstein's 1912 Manuscript into an absurdly erotic interaction with a physical text. Diane, Martin's old physics teacher, coaxes her ex-student to divulge his adoration for Einstein's work. The exchange becomes increasingly charged as Einstein's manuscript is stripped down layer by semantic layer: from the 'numbers, letters, expressions' (p.31), to the 'way the facsimile pages become less pale' (p.32), to the 'hardcover, page ten inches by fifteen inches' (p.32), until all that is left is 'The sheer physical beauty of the pages' (p.32). Einsteinian physics left gloriously nude; Diane aroused to the point that she decides 'they ought to stop' (p.33).

Brian Kim Stefans describes poetry as 'a direct transmission of forces- not of message but of pure physical energy expressed through printed type', events, rather than narratives, which 'recreate in the human observer the sensation of human bodily function such as sexual desire, physical tension, repulsion'.[82] By appealing to physics, Stefans explains poetry as an event which elicits intuitive, narratively unmediated physiological reactions, and which thus serves as a site for empirical forms of knowledge production. Given Stefan's invocation of the physics of poetry, Diane's libidinal response to Einstein's manuscripts is more than just absurdity for absurdity's sake. As a text thematically concerned with the elementary laws of the universe, DeLillo's choice assault on Einstein's manuscripts serves as the ultimate metaphor for the reduction of language into its elementary properties and subsequent transformation of textual engagement

[82] Brian Kim Stefans, 'Against Desire: Excess, Disgust and the Sign in Electronic Literature', *Electric Book Review*, 27 February 2014. <https://electronicbookreview.com/essay/against-desire-excess-disgust-and-the-sign-in-electronic-literature/> (para 16 of 54).

into a poetic event. The manuscript's significance does not reside within its narrative content, but within the manuscripts' extratextual properties such as the paper and ink, turning the laws of physics contained by the text onto itself and subsequently affecting physical responses from the reader.

This idea that reorienting narrative meaning away from the linguistic, immaterial content of a text to its non-linguistic, material properties enables intuitive, bodily reader relations to texts seemingly challenges the viability of interpreting this book as analogous to, or as a literary depiction of, VR as a model for experiential reading. As noted by Wang Qian, 'In comparison to the real world, virtual reality eliminates materiality'.[83] Yet despite the lack of materiality within virtual environments, VR is nevertheless a highly embodying experience. As such, the VR user experience constitutes an exceptional phenomenological event in which users can *feel* or physically interact with immaterial phenomena and experience embodiment in immaterial space. Such corporeal interactions may include sensorily registering the touch of a virtual avatar on one's own body or feeling the real-world density and scale of a virtual object in one's hand. I argue that traces of this type of human experience unique to VR technology can be found throughout *The Silence*. To initiate this case, it is useful to clarify that Diane and Martin's libidinal interaction with Einstein's manuscripts is not a direct encounter with the physical text. Instead, it is the *idea* of the material text as the subject of their conversation that prompts their sensuous response. This conceptual or "virtual" invocation of a physical text, and the extreme bodily response it elicits, aptly depicts the novelty of the experiential encounters with immaterial phenomena to be had in VR and, DeLillo ambitiously suggests, literature.

The Silence **is a VR experience**

The immaterial environments within VR mirror humanity's increased proximity to the virtual world through the ubiquity of mobile technologies in everyday life and the literal erosion of material reality by such climate events as melting glaciers and rising sea levels. However, the exceptional phenomenological

[83] Wang Quian, 'Virtual Reality vs. Real World: On Materiality and the Difference of Environmental Perception', *Theoretical Studies in Literature and Art*, 44.5 (2024) 68-76 (p.68) <https://tsla.researchcommons.org/journal/vol44/iss5/7> [accessed 14 January 2025].

character of the VR experience as an embodying encounter with immaterial phenomena, enabled by the multi-sensory affordances of haptic technology, makes it possible to affectively interact with and intervene in such a precariously material reality. DeLillo's emphasis on textual materialism in *The Silence* misrepresents reality as being unchanging as the pages and ink of a traditional print text. Therefore, in line with Colin Renfrew's claim that, 'engagement with the material world where the material object was the repository of meaning is being threatened [...] 'Physical, palpable material reality is disappearing', the book reads as a reaction against reality's ongoing dematerialization.[84]

However, DeLillo self-reflexively addresses this representational gap between the ideal of objective material reality reproduced by the overtly material substance of *The Silence*, and the increasingly immaterial nature of contemporary reality, through Tessa's monologue about the materiality of her own writing. As she retrospectively recounts: 'For many, many years, I've been writing in a little notebook. Ideas, memories, words, one notebook after another, a huge number by now stacked up in cabinets, desk drawers and elsewhere' (p.112). This image of the sheer material abundance of the writer's ideas and observations contained by her personal journals is swiftly curtailed by a series of seemingly unrelated questions: 'Are we witnessing a deviation in nature itself? A kind of virtual reality?' (p.113). I argue that it is by no coincidence that consideration of the materiality of text is uttered in the same breath as a speculation about living in a virtual reality.

Tessa alludes to 'virtual reality' in its more *conceptual* sense as a description of the increasingly digital nature of life in the modern technological epoch. She simultaneously evokes VR, in its *actual* sense of the interactive technology, through her subsequent contemplation of body-led, sensorial forms of knowledge. As she goes on to rhetorically ask, 'Is it natural at a time like this to be thinking and talking in philosophical terms as some of us have been doing? Or should we be practical? [...] Tend to the simplest, physical things. Touch, feel, bite, chew. The body has a mind of its own' (p.113). As the embodiment of the fiction writer, Tessa self-reflexively asks how writers and readers should interpret such an uncertain reality. She

[84] Colin Renfrew, *Figuring It Out* (London: Thames and Hudson, 2003), pp.188-189.

distinguishes between two ways of cognizing crisis: pontificating about the various possible causes and meanings of the systems crash, or deploying the body, phenomenologically reduced to its five primary senses. Her soliloquy, 'The body has a mind of its own' aptly speaks to the principle of intuition grounded in embodied knowledge, a cognitively unmediated, body-led approach to epistemology historically eschewed, as Nicola Lacey addresses, by 'the privileging of mind over body' within Cartesian dualism and Western philosophy more widely.[85]

As a story linguistically governed by Max's nihilistic decree that 'there's nothing else to say except what comes into our heads' (p.111), *The Silence* is faithfully written in accordance with the principle of intuition or unmediated thought processes. For example, on the plane, Tessa cannot remember Mr Celsius' first name, only to then remember it 'out of nowhere [...] She found this satisfying. Came out of nowhere' (pp.14-15). After arriving at the hospital with a head injury sustained in the plane crash, Jim idly asks his wife, "Why are we standing here?". She responds by reminding him "You have a wound" (p.56), a near-comical demonstration of the separation of the body from conscious awareness. Such cognitively unmediated and uncanny ways of thinking and acting put the gambler's creed to 'Let the impulse dictate the logic' (p.19) ambiguously forming the epigraph of Chapter Two to narrative work. With Tessa's contemplation of embodied knowledge practices (albeit not until the final pages of the book), intuition emerges as the narrative strategy of *The Silence* as a story in which DeLillo gambles with the basic rationale of a text as a legible thing to be read in order to incite intuitive, body-led modes of interpretation from his reader.

This (re)turn to intuition mobilized by an uncertain context which defies habitual knowledge practices in *The Silence* is also the primary principle of the VR user experience that I am most interested in. In VR, the involuntary systems of the body can believe something that the rationalizing faculties of the mind cannot. It is this irrational quality of experience in VR that makes, for example, riding a virtual rollercoaster so sensorily intensive. Through multi-sensory haptic technology, these game-based simulations allow the user to feel the adrenaline and dizziness of fast speed, loops, and heights on impossibly extreme rides or within

[85] Nicola Lacey, *Unspeakable Subjects: Feminist Essays in Legal and Social Theory* (Oxford: Hart Publishing, 1998), p.107.

fictional settings such as sci-fi cities or the dinosaur age. While depicting wholly fictitious environments, the VR user experience can be said to "real" (as in epistemologically valid) as a *felt*, rather than *believed* experience.

The epistemic viability of VR as a technology which incites impulsive behavioural user responses to fictional scenarios has been seized to transform how thought experiments are conducted in philosophy. In a study entitled *Murder on the VR Express: Studying the Impact of Thought Experiments at a Distance in Virtual Reality,* Andrew Kissel postulates that if 'thought experiments are too hypothetical, then they might not give researchers very good data about people's moral judgments'.[86] By recreating the classic trolley problem within a virtual environment, Kissel proposes that the user's sense of bodily presence afforded by the haptic technology better reflects how people might *actually* behave if faced with the moral dilemma of sacrificing one person's life in order to save a larger number than the wholly imaginary thought experiments usually carried out in philosophy.

Forming a literary actualization of this use of VR to observe people's intuitive responses to hypothetical, action-demanding scenarios, DeLillo appropriates the apocalyptic script to pose his own behavioural experiment in *The Silence*. On the one hand, the characters' surreal, slightly neurotic responses to the idea of a life without technology presented by a systems crash which could merely be a power cut provides a satirical commentary on cultural digital addiction. On the other hand, DeLillo's intentionally ambivalent approach to the tech breakdown shows that while the systems crash may not *actually* be the end of the world as the characters know it, the insinuation or *idea* of apocalypse nevertheless provokes significant changes in the ways the characters think and behave. Establishing a correlation between the characters' and the readers' experience of apocalypse as an event distanced from immediate experience, DeLillo suggests that fiction can elicit intuitive responses to crisis from the reader. Fiction thus allows readers to learn how they might respond to a real catastrophic event, and where necessary, intervene in these responses so that more affective action can be taken. This idea that DeLillo not only evokes the body-led experience of

[86] Andrew Kissel, 'Murder on the VR Express: Studying the Impact of Thought Experiments a Distance in Virtual Reality', *Societies*, 13.3 (2023) 1-17 (p.1) <https://doi.org/10.3390/soc13030069>.

fictional scenarios and environments unique to VR within his *characters'* experience of the systems crash, but also through the *reader* experience of the text itself, is evident in the varying ways that the writer introduces renewed awareness of the reading body in *The Silence*.

According to Susanne Blevins, 'All literary interactions necessitate bodily movement'.[87] The fingers leaf through pages. A steady hand holds the book. The necessity of using the body in literacy is however, Blevins claims, frequently 'overlooked when accessing familiar texts and media that have become naturalized'.[88] VR reminds the reader of the body forgotten when reading texts through the user's requirement to relearn how to use their own, technologically augmented body in denaturalized and paradoxical ways, such as relearning how to walk within the spatial confines of a physical room while simultaneously walking in a boundless virtual landscape.

According to seminal digital media theorist, Janet H. Murray, digital environments 'present space that we can move through' and afford individuals 'interactive processes of navigation'.[89] DeLillo recreates the spatiality of new media texts, and the agency this implicitly affords the user to move, through the logical incongruity between the short story form and the banal detail that he materially commits to the text. The final sentences of Part I excessively describe Max's movements: 'Max looked at the screen as he ate and when he was finished eating he put the plate down and kept on looking. He took the bottle of bourbon off the floor and the glass with it and poured himself a drink. He put the bottle down and held the glass in both hands. Then he stared into the blank screen' (p.73). This tension between the material constraints of the short story form and excessively descriptive detail of Max drinking bourbon produces an economy of prose which orients the reader's attention toward the spatial, and thus inherently digital, value of the text. In *The Language of New Media*, Lev Manovich claims new media digital objects and texts are not stories organised in a logical and set order but rather 'collections of individual items, with every item possessing the same

[87] Susanne Blevins, 'From Corporeality to Virtual Reality: Theorizing Literacy, Bodies, and Technology in the Emerging Media of Virtual, Augmented, and Mixed Realities' (published doctoral thesis, University of North Carolina at Greensboro, 2017) <https://libres.uncg.edu/ir/uncg/listing.aspx?id=21879> [accessed 20 January 2024] p.111.
[88] Blevins, p.19.
[89] Janet H. Murray, *Hamlet on the Holodeck: The Future of Narrative in Cyberspace* (Cambridge: The MIT Press, 1998), p.82.

significance'.[90] This is also true of *The Silence* as a plotless text which breaks down into a series of non-sequential monologues and within which an objective sense of time is lost to the systems crash. As Tessa ponders: "Has time leapt forward [...] or has it collapsed?" (p.87). This achronological disruption of the traditionally linear order of narrative implies that the reader could, hypothetically speaking, move through the text, like readers of new media texts, in any order they wish, a point attested to by my own reading of *The Silence* as it ebbs and flows from key narrative moments in the book. By materially committing much of his spatially limited text to the minutiae of Max's body movement, the type of habitual movement usually elicited from narratives because it is subconscious and inherently unnoteworthy, DeLillo implies that there is overlooked knowledge to be found in the naturalized, unconscious body processes involved in reading in a way that parallels the (re)turn to the body offered by the novel somatic experience of VR.

This is most profoundly seen in Max's lengthy account of climbing the stairs back to the apartment after venturing outside: "I started slowly up the stairs, looking at each step as I climbed, flight by flight, and I realized at some point that my hand was on the handrail and I decided that I didn't want it there and just climbed and counted, step by step, flight by flight" (p.110). Pre-empting the reader's flailing grasp of the text with every step made on the stairs, with every trivial word that provides no ascent towards meaning, DeLillo, through Max, defensively declares: 'I don't think I have to apologize for this long dumb description of climbing eight flights of stairs because the current situation tells us that there's nothing else to say except what comes into our heads, which none of us will remember anyway' (p.111). Within this self-reflexive, unapologetic statement about DeLillo's narrative commitment to Max's account of climbing the stairs is a very practical case for embodying knowledge practices in a context of extreme uncertainty. According to Leif Sorensen, the apocalypse represents 'the unthinkable possibility of a crisis so severe that it might not have a future at all'.[91] The 'unthinkable' character of apocalypse negates one's cognitive faculties and necessitates action-led approaches to cataclysmic change. By focusing on the simplest of somatics, the act

[90] Lev Manovich, *The Language of New Media* (Cambridge: The MIT Press, 2001), p.218.
[91] Leif Sorensen, 'Against the Post-Apocalyptic: Narrative Closure in Colson Whitehead's "Zone One"', *Contemporary Literature*, 55.3 (2014), 559-592 (p.560) <https://www.jstor.org/stable/43297975> [accessed 12 April 2023].

of stepping, DeLillo disrupts the extraordinariness of apocalyptic change as an event which exists outside of human scope and offers a glimpse into change as a possibility held within the body.

Significantly, Max's bodily return is a pre-determined act. Retreating from the apocalyptic chaos ensuing outside, 'people on a rampage, nowhere to go' (p.98), Max 'decides that when he gets to his building he will count the stairs as he climbs to the apartment' (p.99). Embodied knowledge has been explored in this chapter in terms of intuition, as an automated, unconscious process. However, Max's *intent* to enact a body ritual which reads like an involuntary obsessive compulsion presents a practice of consciously choosing to perform the unconscious, intuitive body. For Max, counting the stairs is a means of controlling and ordering the uncertain world. It is a childhood body ritual: "I used to do this when I was a kid" (p.109), he recalls aloud. This pattern of movement between Max as a child and Max as an adult establishes a continuum with the past, lending regularity to an unprecedented situation. Through ritualistic physical action, he cultivates conscious embodiment, and seems to call toward the unknown represented by the systems crash with a renewed awareness of reality as grounded within his own body.

Taking place in the liminal zone of the stairwell between the external world of the city and the internal world of the apartment living room, Max's return to his body also speaks to the human capacity for co-presence inherent to VR. In VR, the user is inside the virtual yet still aware that they are in the physical world. As the tension between the short story form and meaningless descriptive prose demonstrates, DeLillo incites his reader to make sense of *The Silence* by negotiating the text's material significance with its immaterial linguistic content. By encouraging this hermeneutic oscillation between the text's extratextual and intertextual domains, DeLillo highlights the capacity for co-presence inherent to the act of reading in which the subject simultaneously inhabits the physical and fictional world, and reinforces physical embodiment as the reading body moves, as Max does, through the text's hybridised material/immaterial environment.

However, DeLillo mobilizes the reader to bodily interact with text, only to frustrate these newly realised corporeal faculties. Rather than seizing his capacity for co-presence and return to the body on the stairwell to galvanize himself and his friends to act, Max returns to the apartment stubbornly unchanged. He ends

the novel as he began, sitting 'in front of the TV set with his hands folded behind his neck, elbows jutting' (p.116). As a bourbon-drinking, binge-TV watching man, Max indulges in acts of bodily escapism and is thus an unlikely candidate for the more affective, embodying modes of narrative interaction motivating this thesis. However, there is a subtle, but significant shift in Max's relation to the television. Part I ends with the statement: 'Then he stared into the blank screen' (p.73). Part II ends with almost the same statement: 'Then he stares into the blank screen' (p.116). Albeit just a single letter change, this semantic shift from the past tense 'stared' to the present tense 'stares' implies a transformation in Max. He goes from nostalgically staring into the empty TV screen, as if searching for the suddenly bygone technological age, to sitting quite comfortably, or disaffectedly, in an uncertainly apocalyptic present which should incite great existential unease.

In Damjana Mraović-O'Hare's understanding, apocalyptic stories are so appealing because they evoke a more structured version of the world 'that is, paradoxically, marked by a threat of looming apocalypse'.[92] In Max, the reader observes a subject accepting the threat of apocalypse in the present, in turn exposing the reader's subconscious aim to remove the prospect of catastrophe from their own lives by escaping into apocalyptic fiction. By obliterating genre expectations on the book's final page, DeLillo leaves the reader feeling a little helpless, and viscerally exhausted by the task of adapting their habitual reading methods to dynamically interact with the necessarily unreadable text. This fatigue, as a real physical reaction to the ending of *The Silence*, tells the reader of the limits of their reading experience, and thus urges them to, like Max, concede to uncertainty in a way that allows the reader to experientially understand the truly unknowable nature of catastrophe in the digital age.

Conclusion

[92] Damjana Mraović-O'Hare, 'The Beautiful, Horrifying Past: Nostalgia and Apocalypse in Don DeLillo's "Underworld"', *Criticism.* 53.2 (2011), 213-239 (p.214) <https://www.jstor.org/stable/23131568> [accessed 2 February 2025].

Don DeLillo is paradox personified: a typewriting, traditional novelist with an uncanny ability to observe the nuances of the technological age, a writer who does not write for an audience and yet whose work has been canonized to represent the America postmodern novel on university syllabuses across the world. In this reading of *The Silence*, it has been important to acknowledge the abundant critical theory on DeLillo's work in order to recognize this 2020 publication as a necessarily unreadable text which thwarts schematized methods for reading the DeLillian oeuvre.

In *Station Eleven,* Mandel wrestled with the metafictional and plot-driven qualities of her novel, showing a contemporary writer grappling with the dilemma of sustaining the readers' interest while also self-reflexively addressing the challenge of writing in or about the digital age. In *The Silence,* what was Mandel's dilemma is DeLillo's gamble. He gambles with the readability of the story: doing away with the reader's expectations of the apocalypse genre, relinquishing his narrative authority to his characters, and abandoning rationality. It is a risky approach to writing about a systems crash, one that could consolidate some readers' dystopic anticipations of the grim fate of literature in the digital age. However, the pay-off of DeLillo's illegible text is that it summons alternatively embodied modes of reading which bare striking parallels to the exceptional phenomenological capacities of VR. He navigates the body limitations of reading texts and the fundamentally unknowable character of contemporary crisis by calling upon the reader's intuitions. Beyond naturalized bodily involvements with texts, such as holding the book or feeling the texture of the page, intuition, as a cognitively unmediated process, is the closest approximation to actually moving through literary space with the body as the user does in VR. By issuing this return to the reading body and seizing the human capacity for co-presence learned from the proximity of virtual space in everyday life, DeLillo reminds the reader of their ability to affect positive change in a time when dystopian post/apocalyptic fiction in popular culture repeatedly remind humans of their immanent doom.

CHAPTER III

Rumaan Alam's *Leave the World Behind:* Towards Virtual Realism

In Chapter I and II of this thesis, I explored how the abstraction of technology in post/apocalyptic fiction can renew the dually material and immaterial vitality of literature, and calls upon the reader's body to perform more agential and embodying modes of narrative engagement. I have described how a reader's ability to use textual objects explored in *Station Eleven* and to feel fiction speculated in *The Silence* evoke the novel interactivity of VR. By appealing to VR as a model for experiential reading and by analysing how this embodied reading model is put to work in these texts, I have put forward an idea of a reader subject physically interacting with fictional or immaterial phenomena. This makes the realisation of alternative realities extraneous to material reality, or of intervening in the present reality to enact positive change, quite literally *feel* possible.

To develop the question of *how* people read in the digital age created by my approach to the VR user experience as a form of reading, in this chapter I will consider the manner in which identity-based factors such as race, gender, class, age, and ethnicity influence people's engagement with texts. Discerning the different ways that individuals read requires probing how certain forms of storytelling influence the type of information, and thus in turn the types of readers, included in or excluded from texts. According to Michelle Warren, this kind of socio-politically oriented approach to literary texts can identify 'the power dynamics (both oppressive and resistant) that sustain language and text systems'.[93] This idea that the constructed nature of texts opens perspectives on the silent and salient power structures at work in literary fiction also applies to technologies. As Ruha Benjamin argues in *Race After Technology*: 'With emerging technologies we might assume that racial bias will be more scientifically rooted out. Yet rather than challenging or overcoming the cycles of inequity, technical fixes too often reinforce and even deepen the status quo'.[94] Given my definition of VR as an "experiential narrative technology" provided in this thesis' introduction,

[93] Michelle R. Warren, 'The Politics of Textual Scholarship', in *The Cambridge Companion to Textual Scholarship* ed. By Neil Fraistat and Julia Flanders (Cambridge: Cambridge University Press, 2013), pp. 119-134 (p.119).
[94] Ruha Benjamin, *Race After Technology: Abolitionist Tool for the New Jim Code* (New York: Polity Press, 2019), p.3.

discerning the power dynamics separately operating between narratives and readers, and technologies and users, is critical to the viability of using VR as a model for experiential reading.

The reductionist approach taken to "The Reader" in this thesis is perhaps an inevitable consequence of analysing a genre which depicts civilizational collapse, in which individual identity is erased by the atomization of people into "survivors" or "humans" by catastrophe. However, to dismiss apocalyptic fiction as an exclusionary storytelling form which perpetuates a totalizing ideology of humanity and a power dynamic which disavows diverse identities is to undermine the genre's potential to galvanize readers to take political action in response to fictional depictions of global contemporary concerns. In a 2018 research project, Calvert W. Jones and Celia Paris assessed the political affectivity of news media in contrast with dystopian fiction, and found that exposure to 'dystopian fiction heightens belief in the justifiability of radical political action'.[95] This openness to political action attests to the genre's potential to mobilize readers and highlights a striking parallel between the post/apocalyptic genre and VR's capacity to prompt physical movement from the user.

Rumaan Alam's *LTWB* responds to the need for a more plural conception of "The Reader" by offering a racialized account of post-technological apocalypse to reclaim the political affectivity of reading post/apocalyptic fiction. According to Julia Lindsay, traceable within the post/apocalyptic tradition is a tendency for writers to project 'into the visions of the future their desire to consign racial issues to the past'.[96] Debunking these post-racial fantasies, Alam imagines the breakdown of information and communication technologies to highlight the racial coding of modern technologies and the inequities perpetuated by mediatized stories about catastrophe. Like Mandel and DeLillo, Alam imagines a sudden technological breakdown in modern North America, but only *partially* so. Technology only partially breaks down. The story asks what would become of one's understanding of the apocalypse if holidaying in a Long Island

[95] Calvert W. Jones and Celia Paris, 'It's the End of the World and They Know It: How Dystopian Fiction Shapes Political Attitudes', *Perspectives on Politics*, 16.4 (2018), 969-989 (p.982)<https://doi.org/10.1017/S1537592718002153>.
[96] Julia Lindsay, 'Race, Utopia, and the Contemporary Post-Apocalyptic Zombie Narrative', *SRFA Review*, 52.3 (2022), 50-59 (p.51) <https://sfrareview.org/wp-content/uploads/2022/08/sfra-5203-zombie.pdf> [accessed 10 February 2025].

rental property with precarious internet connection when events ensue. Premised on the precarity of contemporary knowledge, knowledge as contingent as Wi-Fi in the countryside, *LTWB* trades what Meeuf describes as the 'revelation of truth, of unquestioned knowledge and clarity about morality, justice, and the nature of the world', the Western epistemologies rooted in the apocalyptic script, for a more speculative notion of apoclaypse.[97] A story intentionally half told, Alam embraces the uncertainty of life in the digital age and implicitly advocates for VR as an experiential medium which can accommodate the diversity of human experience in times of crisis.

Drawing on the interconnections between the motifs of race, technology, materiality, and storytelling thematized in the novel, I explore *LTWB* as a race-focused narrative experiment which addresses the allure of the materialist conceptions of reality used to mediate the existential uncertainty definitive of the contemporary epoch. In Alam's conception, the apocalypse is a radically intangible and unknowable event which, to be engaged with affectively, requires alternative modes of knowledge acquisition which embrace uncertainty and allow individuals to physically feel change. I argue that VR is an exceptional phenomenological medium which affords users such opportunities. However, in line with Mary B. McVee's definition of embodied knowledge as 'emphasizing the value of identity-based knowledge', *LTWB* demonstrates that culturally divergent lived experiences influence how humans interact with the world and thus in turn their receptivity to cataclysmic change represented by the apocalypse.[98] As a body-led narrative experience, VR is a mode of storytelling narratively determined by the subjective experiences engrained with its users' bodies. VR can thus accommodate the breadth of human experience in a way that print literature, by virtue of the medium's comparatively limited corporeal and sensory affordances, can only aspire to. Borrowing Michael Heim's coinage, I call this narrative aspiration to VR perceivable in Alam's *LTWB* 'virtual realism'.[99]

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[97] Meeuf, p.283.
[98] Mary B. McVee, Kelly A. Schucker and Aijuan Cun, ' Posthumanism and Positioning Theory: explorations of embodiment and affect from a critical perspective, *International Encyclopedia of Education (Fourth Edition)* (2022), 918-927 (p.919) <https://doi.org/10.1016/B978-0-12-818630-5.07083-4>
[99] Heim, p.1.

In 1998, Heim introduced the term 'virtual realism' and defined this neologism as a matter of sustaining an 'uneasy balance...[between] the idealist's enthusiasm for computerized life with the need to ground ourselves more deeply in the felt earth affirmed by the realist as our primary reality'.[100] Written during a time which saw the rise of cyberspace and an inevitable cyberspace backlash, Heim calls upon VR as a medium which enables co-presence between virtual and physical worlds, and thus cites VR as a powerful model for learning how to live with new computerized technologies during their rapid emergence into everyday life in the 1990's. Heim's defence of computerized immersive technologies against those who perceived them as a threat to human existence is superfluous in today's irreversibly digital age. However, given the environmental catastrophe paired with the increasingly digital nature of 21st century life, the impetus to balance 'computerized life' with a connection to the 'felt earth' is more environmentally and existentially urgent than ever. The idea of virtual realism runs throughout my reading of *LTWB,* and I return to the concept directly towards the end of the chapter.

A technological idea of race

The city-dwellers' retreat to the safety of a rural environment is a prominent trope of the apocalyptic imaginary. This motif of apocalyptic retreat has, as Marc O'Connell's reports, become a twisted fantasy of superrich doomsday preppers who are increasingly buying property in New Zealand, 'an island haven amid a rising tide of apocalyptic unease', and forms the subtext of *LTWB*.[101] Amanda, Clay, and their two teenage children, Archie and Rose, a white middle-class family from Brooklyn, set out to a vacation home in rural Long Island, responding to an Airbnb invitation to 'Step into our beautiful house and leave the world behind' (p.7). The holidaymakers claim they want to temporarily leave the world, or rather the very modern capitalist version of "the world" contained by their life in New York City. But surrounded by phones, laptops, televisions, this is a superficial and privileged escapism. Guarded against the true meaning of exile by devices which promise an unbreakable connection to the technologically mediated world, their naive

[100] Heim, p.46.
[101] Marc O'Connell, 'Why Silicon Valley billionaires are prepping for the apocalypse in New Zealand', *The Guardian*, 15 Feb 2018. <https://www.theguardian.com/news/2018/feb/15/why-silicon-valley-billionaires-are-prepping-for-the-apocalypse-in-new-zealand [accessed 1 October 2023] (para 8 of 57).

response to the sales pitch promise of a temporary flight from everyday reality is parodied by the fact the family have only driven a couple of hours away from home.

An initial reading of *LTWB* as a satire of the escapist desires produced by apocalypse narratives is quickly curtailed by the revelation, initiated by a mysterious knock on the door at midnight, that the owners of the luxurious holiday home, 'rich enough to be thoughtful' (p.8), are Black. They are Black *and* wealthy. This revelation clarifies that is not a book which simply takes satirical aim at the privileged white middle class American family. It is a book which confronts the reader with their own racialized narrative expectations generated by their familiarity with the cliched tropes of the apocalyptic script.

Historically and continually omitted from simplified apocalypse narratives is the fact that world-ending has occurred again and again for certain subjects in the form of colonization and the dispossession of vulnerable populations. Increased flooding in South Sudan, tropical cyclones in Madagascar, and droughts in the "Dry Corridor" of Central America are just some examples of the countries already on the frontline of the climate crisis, effected more severely than western nations because they lack the money and infrastructure to withstand environmental disaster. This grim reality of poorer nations already dwelling in the types of crisis scenarios reserved for apocalyptic fiction has seen the genesis of a new mode of storytelling called "apocalyptic realism". According to Rebecca S. Oh's definition, apocalyptic realism 'reveals the causal factors that produce world-ending for some but not for others, attuning readers to the particularity and unevenness of apocalyptic experience'.[102] In *LTWB*, Alam attunes his reader to the unevenness of apocalypse by taking a partial and speculative approach to the apocalypse narrative form. In doing so, Alam highlights the narrative violence perpetuated by the genre through the fictitious ideal of human unity generated by the depiction of crisis as a global event.

A few chapters into the novel, as Amanda's family settle into the lazy rhythms and familiar rituals of a family holiday, there is 'A disruption, a change. Something' (p.32), the knock at the door in the middle of the night. Behind the knock, a couple, named G.H and Ruth, claiming "This is our house" (p.38) and bearing

[102] Rebecca S. Oh, 'Apocalyptic Realism: 'A New Category of the Event', *ISLE: Interdisciplinary Studies in Literature and Environment*, 29.4 (2022) 967–986 (p.970) <https://doi.org/10.1093/isle/isab020>.

a story of a blackout in New York City: "We were driving back to the city. Home. Then something happened". Their tale of a possible disaster ensuing in both families' home city is verified by a news headline on Amanda's phone describing a "Major blackout reported on the East Coast of the United States" (p.40). With this, the story's holiday context, initially read as a satirical critique of escapism, serves as the contextual catalyst of Alam's more speculative notion of apocalypse experienced from a distance and based on hearsay.

Geographically, the characters are quite literally on the margins of the blackout occurring in the nearby city. Temporally too, the family are removed from the chaotic pace of inner-city family life by the calmer rhythms of the rural holiday context. A book that takes place geographically, temporally, and narratively on the threshold of the typically urban context of apocalyptic fiction, Alam establishes a creatively liberating distance from the genre's familiar high-action tropes of chaos and mass hysteria catalysed by a city blackout. The city, a place as 'unnatural as it was possible to be' and 'where light was fundamental to its existence' (p.42), is a technologically fragile ecosystem. Densely populated, city citizens are thrust into immediate survival conditions. A total system crash in New York means that, as Ruth highlights, "The traffic lights would have all gone out" (p.42), emergency aid services collapse, and as a result, people become permanently trapped in elevators and subway carts-cum-tombs. Through this contextual dichotomy of rural/urban ecologies, Alam attests to Hurley's claim that 'an apocalypse is a relative thing'.[103] He suggests that a context-based approach to realism is a critical narrative strategy for articulating the unevenness of world-ending experience, and for affording space for the more speculative depictions of catastrophe occluded within the apocalyptic tradition.

Crucial to Alam's speculative approach to apocalyptic storytelling is the technologically contingent realism and notion of knowledge produced in *LTWB*. It is not until the arrival of the proprietors that Amanda and Clay learn that their digital devices are no longer operating. Clay, testing the TV with the remote control, is greeted with 'that blank digital blue' (p.52). And yet paradoxically, power persists. As Amanda remarks:

[103] Hurley and N. K Jemisin, 'An Apocalypse is a Relative Thing: An Interview with N. K. Jemisin', *ASAP/Journal*, 3.3 (2018) 467-477 (p.467) <https://doi.org/10.1353/asa.2018.0035>.

"So: electricity, some blackout" (p.72). So, some apocalypse, some explanation. This distinction between persistent electricity and fallible media technologies isolates media and information technologies as devices which, given their ubiquity in everyday life, sustain an epistemic fallacy that knowledge is always readily accessible and that all things are knowable. Disrupting the dominant system of knowledge brings new awareness to the alternate epistemic modes existing on the vibrant borderlands of the Western epistemological landscape represented by Alam's liminal depiction of apocalypse on the edge of the city.

In *LTWB,* the contingent realism and knowledge produced by fallible technologies, a fallibility hyperbolized by the state-wide blackout, enables Alam to attend to the complex interconnections between race and technology. The complexity of the race-technology relation resides in technologies and computer codes as things which, as Benjamin argues, can 'reinforce racist norms and structures'[104], and thus need to be socio-politically "re-wired" to better serve different identities, but which also, as Laboria Cuboniks proclaims, possess a 'real emancipatory potential' yet to be realized in existing technologies.[105] Alam illuminates the subtle, deeply entrenched varieties of racism in the contemporary age by inviting the reader to think of race as something which shapes, and is shaped by, technologies and technological systems.

His unmissable use of 'blackout' as the book's central pun recodes Blackness in terms of the many racialized polarities contained by electricity: light and dark, safety and danger, whiteness and Blackness, life and death. It is by no coincidence that G.H and Ruth's arrival on the holidaymakers' doorstep interrupts the house's power structure. This timely interruption playfully invokes the double meaning of "power" in its literal sense of electricity and energy, and its more figurative, social sense of authority over other people or a course of events. Amanda and Clay's desire to 'pantomime ownership' (p.16) during their stay in the beautiful house is replaced with an awkward power structure in which both guest and host are forced to co-habit a property to which they 'each laid claim' (p.88). Framed in terms of proprietary rights, the house symbolizes how, in Mabel Gergan's assessment of the genre, 'apocalyptic imaginings have often been framed through an exclusionary hierarchy of humanity, necessitating closer examination of how cliche'd

[104] Benjamin, p.52.
[105] Laboria Cuboniks, *The Xenofeminist Manifesto: A Politics for Alienation* (London: Verso, 2018), p.33.

genre conventions that saturate our media environment rely on anti-Black racism and indigenous erasure'.[106] The "blackout", then, may be read as a metafictional interrogation of the inadequate representation of different, non-white experiences of catastrophe within the media, and G.H and Ruth's entrance into a house of fiction which rightfully belongs to them, a summon to write the excluded Other back into the apocalypse story.

It is critical to note that Alam's electrified analytic of racial power does not merely aspire to hierarchical subversion, a 'tendency for epic reversal' which Gergan claims typifies many contemporary revisions of apocalyptic discourse.[107] Rewriting disaster to recentre non-white perspectives equates solving the apocalypse genre's racialized narratives to a simple act of script-flipping, paradoxically sustaining, rather than unsettling, rigid conceptions of which subjects are worthy of being accounted for in apocalyptic fiction. It is insufficient that G.H and Ruth are Black *and* wealthy. It is not enough to rescript a Black couple into a position of financial privilege to change or undo the racialization of popular narratives.

The house, solidly made and tastefully furnished, beautifully situated and absolutely safe' (p.60), is 'bound by a picket fence, white, not a trace of irony in it' (p.8) and a second fence, 'this one wood and wire', built because the homeowners 'knew that sometimes deer strayed into attractive nuisances' (p.8). Doubly fortified against nature and imitative of the priority placed on homeland defence by America's current president, the house is constructed out of an all-American ideal of home and safety. This nationalized representation of home begs a question of the alternative, non-western epistemologies excluded from the well-built and well-protected house. After allowing G.H and Ruth to enter their own home (not without G.H first resorting to offering a one-thousand-dollar compensation for the inconvenience), conversation inevitably gives way to the possible blackout causes. Clay attempts to console the three other adults: "The emergency is that New York City is without power. But we still have it, even if we don’t have TV or the internet" (p.58). With this, the adults each privately realise 'how much light connoted safety, and how much

[106] Mabel Gergan, Sara Smith, and Pavithira Vasudevan, 'Earth beyond repair: Race and apocalypse in collective imagination', *Environment and Planning D: Society and Space*, 38.61, 91-110 (p.92)<https://doi.org/10.1177/0263775818756079>.
[107] Gergan, p.102.

dark its opposite' (p.65), an artificial and illusory sense of security analogous to a child's dependence on a nightlight. This prompts the reader to question the logic of the cultural orientation toward light as a source of safety, and by negation, against darkness and Blackness as a threat to that safety.

The inexplicable persistence of electricity is the difference (a difference as tenuous as a flick of a light switch) between the characters *surviving* and *inhabiting* the apocalypse; an ability to dwell in uncertainty together precluded by the immediate horrors of the neighbouring city plunged into darkness. This is not a utopic conception of togetherness which transcends the racialized tension of their dual ownership of the house and incites a return to a more authentic sense of social connection lost to the isolating effects of the digital age. But it does unfold into something like community resilience as the two families learn to live with each other. The omniscient narrator, of Ruth, says it best, 'Ruth didn't want these people here, but she couldn't help but feel some human connection to them. Ruth worried about the world, but to care for other people felt something close to resistance' (p.101). This aligns with Oh's claim that the ambition of apocalyptic realism is to offer 'strategies for living in damage without succumbing to despair or escapism',[108] and counters the 'turn to racialized violence and savagery' characteristic of, according to Gergan, the apocalyptic tradition.[109] By appealing to technology's ambiguity, to its miraculous presence and inexplicable absence, Alam reimagines the apocalypse as an inhabitable situation which affords space for the formation of new social relations and alternative forms of knowledge production. By nuancing technology, the novel resists the wholesale rejection of technologies often seen in post/apocalyptic stories which depict a world damaged by and thus better off without them, and thus engenders the case for VR made in this thesis as a novel medium uniquely suited to apocalyptic fiction and the more affective modes of being necessitated by catastrophe.

Broken News

[108] Oh, p.982.
[109] Gergan, pp.91-92.

The persistence of power and failure of media and communication technologies in *LTWB* isolates the media as the target of Alam's literary assessment of technoculture, bringing new awareness to news stories and the apocalypse genre as two globalizing modes of storytelling which confuse *a* world for *the* world. The proximity of fiction to fact entailed by this news/apocalyptic fiction interrelation, a proximity increasingly on the verge of collapsing as apocalyptic catastrophe becomes an ever more likely reality, is supported by Jones and Paris' claim that 'consumption of fiction and entertainment dwarfs that of news and other nonfiction media'.[110] Given this societal inclination for fiction over non-fiction, and the fact that 'the narrative structure typical of fiction is known to be exceptionally powerful in shaping cognition and persuasion', fiction is a politically affective force which needs to be taken more seriously by political scientists and wielded with care by fiction writers.[111]

The novel's first half is dogged by the speculation of whether 'something is happening' outside of the six characters exiled together in the house, or if they have hysterically conflated their lack of service, already spotty in the rural location, with the end of the world. With little more to go off than the tale told by G.H. and Ruth and the news headline, the absence of communication technologies underscores humanity's dependence on technological devices as the epistemological interface between humans and the world. Ruth's provocation about the nature of knowledge in the digital age, "You'll believe it when you can see it on your phone" (p.102), expresses the cultural tendency to conflate objective knowledge with the non-human, material objecthood of the digital mediums, such as phones, laptops, and TV's, most used to access information about world events in today's mediatized society. Affirming the continual accuracy of Marshall McLuhan's 1964 adage, 'The Medium is the Message', Ruth's statement implies that the knowledge and information contained by digitized news stories is augmented by the materiality of the communication medium (in Ruth's example, the mobile phone) used to make said knowledge accessible to the reader.[112] The message of the phone medium in *LTWB* is twofold. Firstly, it suggests that the version of the world

[110] Jones and Paris, p.969.
[111] Jones and Paris, p.969.
[112] Marshall McLuhan, 'The Medium is the Message', in *Understanding Media: The Extensions of Man* ed. by Lewis Lapham (London: The MIT Press, 1994), pp.7-25 (p.7).

mediated by digital devices has subsumed the experientially direct, physical world as the primary reality, promising a panicked crisis of knowledge when devices breakdown and with this epistemic hysteria, a stable sense of reality and the human role within it. The second message is that in the wrong hands, the perception of objectivity evoked by digital objects could be (and is, as evidenced by the dissemination of fake news and misinformation in contemporary media) used to disguise sensational, emotionally charged or totally fabricated political messages as objective truths.

As in DeLillo's *The Silence,* Alam's characters' apocalypse experience is reduced to the domestic home and its immediate natural surroundings. Contrary to DeLillo's constructivist disavowal of a "real" world outside phenomenological experience however, Alam deploys a third-person omniscient narrator. In Caracciolo's analysis of *LTWB,* this appeal to an authoritative voice is 'a centrepiece of nineteenth-century realist fiction', deployed by Alam to pull away from the internalized perspectives of the characters and to paint a wider picture of looming catastrophe.[113] The narrator itemizes the dark realities occurring beyond the rural house: 'an asthmatic woman named Deborah had died after six hours trapped on an F train stalled beneath the East River' (p.120), 'Delta has lost a plane travelling between Dallas and Minneapolis during the disruption of the air traffic control [...] a pipeline was spilling crude onto the ground in an unpopulated part of Wyoming' (p.121). This contextualisation of the two families' apocalypse experience seemingly urges a recovery of realism after the exhaustive, constructivist notions of the world produced by everyday media technologies. However, the apparent omniscience of Alam's narrator is undermined by the inconsistency of the knowledge provided and withheld. While sadistically generous in its detailing of the many types of death and suffering taking place in other parts of the country, the narrator withholds knowledge about the blackout causes and the protagonists' fates. With this, Alam's appeal to realism does not offset the sense of uncertainty created by his partial approach to apocalyptic storytelling, but intensifies it. He summons the reader to be sceptical of omniscience and to embrace uncertainty as part of an ambiguated idea of reality.

[113] Caracciolo, 'Climate Change and the Ironies of Omniscience in Rumaan Alam's Leave the World Behin*d', Anglia* 140:1 (2022) (116-139) p.116 <https://doi.org/10.1515/ang-2022-0007>.

The urgency of this lesson to surrender to uncertainty and resist the fallacy of an objectively knowable world produced by media technologies is reinforced by Amanda's weaponization of the news headline reporting the blackout. As already explained, the news, for its supposed aim to present truthful, factual, and objective stories about "the world", is an intrinsically apocalyptic mode of storytelling. Amanda's scepticism of G.H and Ruth as credible apocalyptic storytelling shows how this ideology of objective truth engendered both by apocalyptic fiction and "factual" news stories can exclude Black and indigenous voices.

Despite G.H and Ruth's story of the city blackout being fact-checked by *The New York Times* headline on Amanda's phone, Amanda is less persuaded by this confirmation of the couples' claims of a blackout than her certainty that she is being deceived by these strangers. Amanda wields the headline, not as reassurance that these strangers are indeed telling the truth and should be given accommodation (in their own home, lest the irony be forgotten), but as a weapon: 'She didn't have any news beyond those eleven words, but it was something, and represented some advantage over these people' (p.41). Her confirmation of the couples' claim is her retaliation, "A blackout". Amanda produced this, triumphant' (p.41). This weaponization of knowledge is intended to defend Amanda's position in the social hierarchy constructed by the house and threatened by the arrival of its rightful owners. It confirms her private belief that 'This didn't seem to her like the type of house where black people lived' (p.38), and more subliminally, that Black people are inherently untrustworthy. Amanda exhibits what Karen Barad theorizes as 'the asymmetric faith in our access to representations over things'.[114] In Amanda, this faith in representation becomes racially violent when those 'things' distrusted and dismissed in favour of the version of events represented by technology are other people.

Following G.H and Ruth's arrival, the four adults wile away their first evening together indulging in conspiracy theories about the possible blackout causes over bowls of leftover pasta. Ruth, the novel's chief speculator, postulates, "What if it's the North Koreans?" (p.62), while G.H has his own private theories, 'He had his money on Iran, maybe Putin' (p.63). The morning after, Amanda returns to the news headline.

[114] Karen Barad, 'Posthumanist Performativity: Toward an Understanding of How Matter Comes to Matter' *Gender and Science: New Issues,* 28.3 (2003), 801-831 (p.806) <https://doi.org/10.1086/345321>.

It is inexplicably unresponsive to her touch: 'She pressed on the alert and the screen tried and failed to connect' (p.72), revealing no more information and endowing the assumed objectivity of the news story with the mystical quality of an ephemeral message. This subjects Amanda's claim to have seen the headline to the same level of speculation as the strangers' story of a blackout in New York, thus rendering the perceived objectivity of globalized stories a matter of personal belief.

Alam's counterattack against mass media stories which lay claim to "the world" continues as the numerous news alerts of a "Major Blackout Reported on the East Coast" displayed on Amanda's phone become progressively illegible. The last news alert is a single word, "Breaking" followed by nonsensical letters' (p.72), a message which Clay describes as 'a bunch of gibberish' (p.73) and Amanda as 'Not even words. Just letters' (p.73). Breaking news becomes broken news. By materially deconstructing the headline's legibility, Alam theorizes the overriding cultural faith in representation and subsequent inability or unwillingness to perceive changes and disaster indicators occurring in the world embodied by Amanda as foremost a reading problem. As I will go on to argue, this condition specifically shared by the *adult*, as opposed to the child, characters.

The opening lines of Alam's *LTWB* can be paraphrased into a statement of intent: "This is not an apocalypse story which predicts the future". The writer's stance against the cultural inclination for prophecy contained by the genre is unmissable. As the scene-setting first line reads: 'Well, the sun was shining. They felt that boded well- people turned any old thing into an omen. It was all just to say no clouds were to be seen. The sun where the sun always was. The sun persistent and indifferent' (p.1). The detached reference to the characters as 'people' and the indifferent language of 'any old thing' is tinged with a sarcastic and slightly misanthropic tone. This cynicism towards the tendency to look to the material world for signs, affirmations, and omens, frames the novel within non-representationalist theory and especially new materialism, a field, according to Shari Daya, 'seen as the logical conclusion of social constructionist thought, namely that the material world is simply a reflection of, or container for, human values, beliefs

and ideologies'.[115] The 'the sun was shining' omen is an innocent and familiar one: good weather means that this family holiday will be successful, and clouds, its opposite. However, this metaphorical approach to the material environment becomes harmful, Alam suggests, when the physical world is perceived as having no meaning in itself. As the narrator proclaims, 'Eventually your expectations of a thing supersede the thing itself' (p.3), and the world appears as a blank page onto which personal beliefs and agendas can be overwritten.

Reading the sky is a running motif in the book. 'G.H looked out at the day. The morning looked odd to him, but he could not articulate why, could not be certain it was not context instead of fact' (p.84). While intuiting a visible change in the environment, G.H rationalizes this intuition as merely a projection of the collective sense of unease about the blackout shared by the six city dwellers exiled together in the rural house. As such, he ignores the fact of change, a change 'severe enough that G.H shivered' (p.123), to maintain his efforts seen throughout the book 'to be reassuring and rational' (p.144). G.H's determination to be a man who represents rationality and his ignorance towards his body's visceral response to change in the atmosphere suggests a scepticism of body-led, experiential means of knowledge production. This is affirmed by Barad's claim that 'the persistent distrust of nature, materiality, and the body that pervades much contemporary theorizing' feeds off the cultural proclivity for representation.[116] This scepticism is also, Alam suggests, perpetuated within fiction by such literary qualities as metaphors and symbols which denounce physical reality as representative of something more complex, less intangible, and more important. By stark contrast to G.H, Rose 'felt the change in the day, even if no one else did' (p.87). This generational division in the characters' ability to intuit change shows that the adults characters' learned social beliefs and personal values are an obstacle to knowledge and affective action in response to cataclysmic change.

The most harmful version of this ignorance towards the material fact of change and cultural proclivity for representation is exhibited when Clay, in a detective-fantasy bid to 'get to the bottom of it' (p.89), turns

[115] Shari Daya, 'Words and worlds: textual representation and new materialism', *Cultural Geographies*, 26.3 (2019) 361-377 (p.365) <https://doi.org/10.1177/1474474019832356>.
[116] Barad, p.812.

the unexplained blackout event into an opportunity to rescript himself as the protagonist of this story. Motivated by a desire 'to be the one. Clay wanted to put everyone at ease' (p.89) and sets out in the family car 'to go in search of knowledge' (p.92), much like the imperialists who founded his nation. A middle-aged white man who envisions himself as something of an original being, Clay justifies his favourite pastime of smoking by peddling proverbs like, "Tobacco was the foundation of the nation. Smoking tethered you to history itself!" and imagines that 'some shirtless Iroquois in hide loincloth' (p.17) had once stood in the very spot where he himself is tending to raw meat on the barbecue. However, without a GPS to map the way to information, the very modern imperialist becomes lost almost as soon as his venture begins. He becomes trapped in a cinematically time-looped scene of driving down the same road again and again akin to 'those old cartoons that recycled their backgrounds to create the illusion of movement' (p.93). In his idealized self-image as Man or Human, Clay's confrontation with a landscape in which 'Everything was very green. There was nothing to hold onto' (p.93), positions the human in opposition to the natural world, and figures this material reality as violently unreadable.

This tension between man and nature echoes the representation of nature as 'a feral, unpredictable environment where an aggressive nature runs rampant', a central trope, according to Nicole Matthews and Catherine Simpson, of cli-fi fiction.[117] In their examination of representations of eco-disasters in film, Robin L. Murray and Joseph K. Heumann examine how the stand in for "human" is usually 'a scientist/saviour figure'.[118] Clay, however, is an English and Media studies professor with decidedly narrative, as opposed to scientific, motivations. The irony of Clay's occupation is underscored by his own non-representationalist awareness that the deafening silence on the road 'would have seemed peaceful had he been prepared to find peace…Symbols don't mean anything, you invest them with meaning, depending on what you most need' (pp.113-4). Clay, of all people, is evidently aware of the cultural impulse to make

[117] Nicole Matthews and Catherine Simpson, 'Nature strikes back! Genres of revenge in the Anthropocene' *Australian Humanities Review*, 57 (2014), 21–24 (p.22) <https://australianhumanitiesreview.org/2014/11/01/nature-strikes-back-genres-of-revenge-in-the-anthropocene/> [accessed 2 October 2023].
[118] Robin L. Murray and Joseph K. Heumann, *Film and Everyday Eco-Disasters* (Lincoln: University of Nebraska Press, 2014), p.32.

self-serving symbols and metaphors out of matter. But like G.H, Clay subjugates his rationality for a vision of himself as an intellectual hero.

While lost on the road, Clay encounters a woman, 'her face a broad, indigenous shape' (p.115). While he cannot communicate with her because he cannot speak Spanish, the woman's fear 'did not need translation' (p.117), and explicitly expresses that something is happening, a fact that transcends language. This was not the information that Clay intended to find. He had set out in search of evidence that everything was normal, and to vindicate his position as hero. Instead, in the Spanish woman he finds an alternative, indigenous apocalyptic imaginary, one which forces the white man to at once confront what he does not know (the Spanish language), thus made to 'feel like a fool, or a child' (p.115), and the fact of a catastrophe ensuing that he has been egotistically seeking to prove wrong. In the woman's incomprehensible dialect, Clay unmissably hears 'the argot of civilizations long dead…Her people invented astronomy, language, trade. Then they ceased to be' (p.116). Her voice is at once a cry to the past apocalypses of settler colonialism, a call to the colonial legacies of America's present immigration policies, and the emerging apocalyptic reality that 'environmental refugees could become one of the foremost human crises of our times', as cautioned by John Wennersten and Denise Robbins.[119] Rather than reading this encounter as the very opportunity for new knowledge about the situation he proclaimed to set out for, Clay abandons the terrified woman on the road. He actively ignores the fact of the apocalypse as an ongoing end as opposed to a future event (as per the western apocalyptic script) represented by her existence, and thus performs the 'indigenous erasure' identified by Gergan as a central trope of the apocalypse genre.[120]

The anti-Black racism of Amanda's weaponization of the news headline and the indigenous erasure enacted by Clay's abandonment of the Spanish-speaking woman together make a powerful case for the need to reclaim the apocalypse script by attending to the othered apocalyptic imaginaries embodied by G.H and Ruth and the Hispanic woman. However, this genre reclamation cannot be sought for by exclusively

[119] John R. Wennersten and Denise Robbins, *Rising Tides: Climate Refugees in the Twenty-First Century*, (Indiana: Indiana University Press, 2017), p.17.
[120] Gergan, p.92.

appealing to alternative race perspectives, a point reinforced by G.H's complicity in the acts of wilful ignorance exercised by Miranda and Clay. Rose, Amanda and Clay's thirteen-year-old daughter, an avid reader and the youngest of the six characters, is the only one to bear witness to the spectacle of 'dozens of deer. Had she been up higher, she'd have understood there were hundreds' (p.77). This mass migration factual indicates that something so severe is happening that it is destabilizing nature itself. Aware the adults would never believe her (children being ever so custom to tell tall tales), Rose only shares 'the secret of the deer' (p.87) with her brother Archie. With this pivot towards the knowledge of children, Rose ascends as the book's child protagonist because of her active response to 'the change they'd [the adults] pretended not to know what was coming' (p.236). Her hero status is underscored by the narrator's remarks that the adults would do well to 'feel only awe at life's mysteries, as children did' (p.189). This implies that recognizing change as a material fact requires reframing uncertainty about the world as a source of child-like wonder and mysticism, rather than fear.

This child-like acceptance of the unknown stands at odds with the very adult, very learned commitment to wilful ignorance embodied by Amanda. Clay manages to convince his wife to allow G.H and Ruth to stay by appealing to Amanda's moral sensibilities. He knows that 'his wife felt it more important, not to do the moral thing, necessarily, but to be the kind of person who would' (p.52). It is Amanda's priority to *appear* not to be racist. Busied by this performance, she fails to take in the visceral fact that something had seriously changed. This prioritization of *social* survival over *actual* survival means that the adults actively ignore facts of change materializing around them noted by Rose. Alam's positioning of the child as the aspirational figure of his novel thus proposes regressing to a child-like way of engaging with narrative which is ignorant of metaphor and sensorially intuitive. According to a study exploring the embodied turn in reading, 'The early acquisition of literacy is an informative study of embodiment'.[121] Through such reading acts as tracing a line of words with their finger, young readers exhibit an early awareness of the body's role in textual interpretation. This shows that the experiential modes of reading inherent to VR and

[121] Terje Hillesung, Theresa Schilhab, and Anne Mangen, 'Text Materialities, Affordances, and the Embodied Turn in the Study of Reading', *Frontiers: Psychology,* 13 (2022), 1-9 (p.1) <https://doi.org/10.3389/fpsyg.2022.827058>.

pursued in this thesis are innate to the reader, but become clouded by the personal beliefs, agendas, habits, and pursuits of specific types of knowledge motivating people to engage with texts as they get older. Nevertheless, Alam proposes that returning to embodied reading practices is possible by breaking the news. By deconstructing the mediating link between words and worlds contained by news read on a phone screen, Alam illuminates the textual materiality of technological devices as stories which can be physically interacted with in productively childish, embodying ways.

Materializing change

Challenging the polarising logic that technology has had a wholly negative effect on the environment through industrialised activity and by reorienting people's sense of reality towards the digital realm and away from the natural world, Heim's notion of 'virtual realism' emphasizes how technology has enabled the contemporary human to straddle multiple, variably material and immaterial dimensions. This opens a multi-dimensional notion of reality as being in a perpetual state of flux which the human has the power to navigate and control. Forming a literary reclamation of Heim's notion of virtual realism not just as 'a way of living with technology' but as 'an art form', I argue that Alam's *LTWB* shows how technology, while threatening a stable sense of reality through its liability to fail, also makes it possible to productively interact with immaterial concepts like change.[122]

Contrary to more conventional representations of apocalyptic survival, Alam's is not one of resource scarcity. Every page of *LTWB* is as luxuriously and thoughtfully furnished as the house itself, 'the pendant lamps hovering over the oak table, in case you wanted to do a jigsaw puzzle at night, the gray marble kitchen island where you could imagine kneading dough, the double sink beneath the window overlooking the pool the stove with its copper faucet so you could fill up your pot without having to move it' (p.9). Alam's fabrication of the house as an object world perfectly crafted to meet every possible human need or action, and which seamlessly attunes the body to non-human objects, depicts a naïve realism. The naïve

[122] Heim, p.1.

realist, as Heim describes, believes in the 'purity of immediate reality' and thinks of reality exclusively as 'the physical world we perceive with our bodily senses, the world we see directly with our own eyes, smell with our noses'.[123] As the alluring quality of the house suggests, a house 'so well made (walls so solid!) and so seductive too) (p.145), this idealised simplification of a richly material reality readily available to phenomenological experience is an inaccurate depiction of contemporary reality, one as idealistic as the other sense of 'materialism' contained by the luxurious house that possessions equate to happiness.

The narrator affirms the unrealism of the property's simplified phenomenological relation between humans and material reality by declaring 'Vacation was for being returned to your body' (p.20). This implies that embodiment is an opportunity only afforded to people when separated from everyday life. This idea that naive realism is out of touch with reality speaks to the limits of phenomenological and materialist thought in an apocalyptic context. Referencing Timothy Morton's critique of the phenomenological tradition, Samantha Clarke hypothesizes that the 'phenomenological 'lifeworld' implies that which 'is presented to our senses directly', and therefore it must be asked 'where that leaves phenomena such as global climate change or carbon emissions, which elude our direct senses'.[124] In line with Morton and Clarke, Alam's *LTWB* incites an approach to storytelling which can accommodate such ephemeral concepts as change, and which invites the reader to *feel* change in a way that challenges the wilful ignorance displayed by Alam's adult characters.

Halfway through the novel, the author digresses from his intentionally ambivalent and partial approach to the apocalypse script to deploy a certainly apocalyptic trope. Moments after Amanda, Ruth, and G.H enjoy brie and chocolate sandwiches together in the kitchen while Clay is lost on the road and the children, 'bored by their leisure' (p.107) are exploring the neighbouring woodland, there is a sound. This sound, 'was a noise, yes, but one so loud that it was almost a physical presence…It was a noise, but it was a confirmation. Something had happened. Something was happening, it was ongoing' (p.127). A noise 'loud enough to make

[123] Heim, p.37.
[124] Samantha Clarke, 'Strange strangers and uncanny hammers: Morton's The Ecological Thought and the phenomenological tradition', *Green Letters: Studies in Ecocriticism*, 17 (2013), 98-108 (p.102) <https://doi.org/10.1080/14688417.2013.800339>.

a man fall to his knees', Alam's phenomenal transformation of immaterial sound makes the characters corporeally receptive to ephemerality. Given Jacques Derrida's labelling of the apocalypse as a 'fabulously textual' event, the tangible noise not only opens the possibility of people feeling the immaterial phenomenon of cataclysmic change, but also suggests that *stories* can make such paradoxical engagements available to readers.[125]

Exploding almost exactly halfway through the novel, the noise is endowed with extreme structural significance. Just as 'You could fairly say that their lives could be divided into two: the period before the noise and the period after' (p.127), the book itself can be divided into two narrative epochs; the apocalypse story before and after the radical intangibility of the noise. The omniscient narrator reveals that the noise was the sound of planes sent 'to intercept something that approached the nation's eastern flank' (p.134), evoking images of nuclear weaponry and international warfare rooted in the historical origins of the apocalyptic imaginary. This serves less as a quick-fix explanation for the tech breakdown, than as a test of the reader's inherited apocalyptic beliefs and will for easy explanations. It is an explanatory offering made all the more tempting by Archie's mysterious illness following the noise, a sudden illness with symptoms of inexplicable nausea, tooth loss and limbs giving way that can justifiably be read as signs of radiation poisoning.

Thwarting what Hurley calls the 'critical understandings of atomic destruction as an exceptional event', Alam's invocation of nuclear weaponry halfway through his text shows that survival is possible *after* atomic destruction.[126] This structural discontinuity between apocalyptic exceptionalism and the continuation of life after apocalypse in the plot of *LTWB*, further affirmed by the return of the noise 'Once, twice, three times' (p.185) later in the book, metafictionally disrupts apocalyptic logic and orients the story towards the possible of action in apocalyptic circumstances.

[125] Jacques Derrida, 'No Apocalypse, Not Now (Full Speed Ahead, Seven Missiles, Seven Missives)', *Diacritics*,14.2 (1984), 20-31 (p.23) <https://doi.org/10.2307/464756>.
[126] Hurley (2020), p.5.

After the sonic event, the speculation, 'is something happening?' constituting the novel's first half is replaced by the confirmation that 'something was happening to them' (p.163). This subtle semantic slip from question to affirmation incites a practical question of "what we're going to have to do next" (p.137), as voiced by Ruth, and a determined resolve that "We have to do something!" (p.135), more anxiously cried by Amanda. The characters' collective resolve to *do* as a form of knowledge production registers as an apocalyptic pragmatism akin to survivalism. However, the survivalist's rationale that the only reasonable thing left to do is to prepare for the end of the world and to try and survive is undermined by the hedonistic and nihilistic charge of the novel's later chapters. In Chapter 28, the four adults enjoy a meal together which 'felt practiced or familiar as Thanksgiving, the passing of food on plates, the filling of glasses, the chitchat' (p.164). Their toast "To enjoyment" and Amanda's will to 'Fuck, fuck forget' (p.171) in an erotic scene with Clay after the meal thwart the reader's expectation that people in apocalyptic scenarios will succumb to despair.

The nihilism of these hedonistic acts is darkly underscored by the omniscient narrator's "Did it matter?" (p.120) rhetoric: 'Did it matter if the electrical grid broke apart like something built of Lego? Did it matter if Lego would never biodegrade [...] Did it matter if some nation claimed responsibility for the outage, did it matter that it was condemned as an act of war [?]' (p.120). The message of this nihilism is that being aware that cataclysmic change is occurring or knowing what to call it has 'no bearing on the matter at all' (p.121). The narrator seals the characters' fates by whispering fateful affirmations into the reader's ear. Archie will 'never know first-hand' the 'recesses of the human body his own body was designed to fit into' (p.204). The family of the neighbouring farm and owners of the little egg shack 'would never again bring fresh-laid eggs back to that little shed' (p.214). Even Rose, who despite being hailed as 'a survivor and would survive' (p.236), 'would never see' (p.237) the next generation of deer to evolve out of this apocalyptic trauma. No matter how much is learned about the possible explanations of the systems crash, the characters will die. This cruel futility of knowledge at the end of the world demonstrates that the human pursuit of knowledge is aimed at an impossible pursuit of eternal survival, of curtailing the inevitability of death. Extending this lesson to his reader, the final line of *LTWB* forecloses the possibility of knowledge

and narrative closure: 'If they didn't how it would end [...] well, wasn't that true of every day?' (p.241). While the book's most frustrating negotiation, this reminds the reader of the necessity of sustaining "the end" as a known unknown in order to be able to live life. If humans were to know exactly when and how they were going to die, everyday life would be a tortuous, debilitating anticipation of an ever-nearing death.

A naturalized part of human life, this miraculous ability to act in spite of the known unknown of death and to dwell in uncertainty is often forgotten. Alam reminds the reader of their capacity to live in uncertainty through Rose's solo venture in search of 'that other house' (p.235) spotted during an earlier venture into the woods with Archie. This uncanny house, 'is just like theirs' (p.238). Reaching the property requires a one hour walk through the woods, a place where 'you had this sense of something you couldn't see no matter how you tried', where 'The trees were watching, and not impartially' (p.119). It is as if the house over here and the house over there are one and the same, a dwelling transformed by a journey through an environment characterized by ephemerality and a non-human vitality. Depicted as a close simulation of the family's holiday home, Rose's journey reads as a kind of VR experience in which the user journeys through an immaterial environment and encounters a place remarkably reminiscent of, yet also subtly alien to, their own home and life. It is a house without its owners: "You're not home" (p.239), says Rose to no one, a house 'not made to welcome vacationers' (p.238) and filled with quotidian things: 'the fruit bowl with two lemons in it', a kitchen drawn filled with 'rubber bands, dimes, an old battery, a pair of scissors', 'dozens of DVDs' (p.240). An object world saturated with hauntings of the recently departed, photographs of 'smiling faces barefoot at shore or posed against autumn foliage' (p.239), it is as if Rose has wandered into a near-future, postapocalyptic realm in which humans no longer exist. Forming the novel's most genre-defying moment, Rose makes herself at home in this uncanny dwelling and watches the episode of *Friends* 'where Ross fantasized about Princess Leia' (p.240) on the DVD player. Despite the brutal irony of discussing art in the same breath as this popular sitcom, the novel's absurd culminating orientation to the TV medium reclaims the artistic value of specific technologies. This qualifies my case for VR, today primarily used as a domestic entertainment device, as an experiential narrative medium with an emancipatory potential to incite affective responses to catastrophe, and my reading of *LTWB* as a literary virtual realism.

Conclusion

In *LTWB*, Alam acknowledges that imagining the collapse of communication and media technologies to reproduce a notion of physical reality as available to direct bodily experience, as seen in Mandel and DeLillo's depiction of post-technological worlds, is a tempting way to resolve the state of inaction definitive of contemporary life and to redeem the human relation to the damaged material world. However, this simplified conception of reality is discontinuous with a contemporary epoch defined by uncertainty and material instability. In turn, and as the race focus of *LTWB* so aptly demonstrates, it inadequately registers the complex entanglement of identity-based factors with technology, risking disavowing the subjectivity of human experience for the sake of a totalizing ideal of humanity and reality.

The solution, Alam's novel proposes, is to find ways to embrace a lack of futurity and affectively engage with uncertainty as the primary characteristic of present reality, rather than seeking epistemic certainty in a world bound to perpetual change. The emancipatory potential of accepting the inevitability of the end, the telos of life itself, is the possibility that this acceptance affords for the type of action occluded by the stunting anticipation of immanent apocalypse. The challenge of this acceptance of epochal change and a lack of futurity inherent to the apocalyptic realist strain of *LTWB* is evident in the adult characters' preoccupation with keeping up appearances: G.H must appear to be rational, Clay must appear to be an intellectual hero, and Amanda must appear not to be racist. The absurdity of this impulse to sustain one's socialized representation of self in the face of looming catastrophe attests to the complexity of human Being. Paired with the force of humanity's collective faith in representation perpetuated by the media, Alam's attention to different types of people in an apocalyptic scenario shows that there are myriad cultural reasons for people to be resistant to their own intuitive experiences of material reality.

Emerging as the novel's child protagonist, Rose intuits change and surrenders to the unknown wrestled with by the adults, demonstrating that the capacity for embodying narrative engagement is innate to every human reader. Combined with his racially atomized and ambiguated approach to different types of technologies, the writer negates the wholesale rejection of technology often seen in post/apocalyptic fiction and gestures to VR as an embodying technological medium which enables a (re)turn to the intuiting reading

body. As a medium which makes it possible for the user to physically interact with immaterial phenomenon like change, VR also shows that it does not take waiting for technology to collapse, nor for the world to end, to affectively engage with epochal transformation. Most ambitiously, the VR experience, and indeed the reader experience of *LTWB* as a virtual realist novel, constitute a possibility of individuals actively *moving towards* and actualising the type of vast, epochal changes needed to affect positive transformations in the present, environmentally fraught digital reality.

Conclusion

Putting the reading body to work to interact with text as the user interacts with narrative in VR has been made theoretically possible in this thesis by reinforcing the 'thingness' and objecthood of texts. In my reading of *Station Eleven*, I argued that the postapocalyptic context of resource scarcity resignifies obsolete digital devices and pieces of literature such as Kirsten's sci-fi comic as richly material cultural artefacts. By relocating meaning away from the functionality of devices and from the idea of the primary function of texts as things to be read, Mandel places technology and literature in object-oriented dialogue. As the first text explored in this thesis, the book invaluably establishes my premise for VR as an interactive narrative medium, and establishes that a material and object-oriented approach to fiction is the most effective means of attending to the reading body and of illuminating the embodied potential of literature.

This object-oriented approach to literature was also seen in my analysis of *The Silence* and the various encounters of reading bodies with text objects, including the meaning of Einstein's manuscripts residing within the extratextual paper and ink, and Tessa's authorial contemplation of the materiality of her own writing. By orienting the reader's attention to the graphic substance of the text itself, DeLillo's *The Silence* is the most ambition appeal to the embodied interactivity of VR of the three texts explored in this thesis. This reconfiguring of texts as objects was also seen in my reading of Alam's *LTWB*, and the breaking of the news contained by phone and TV objects as a way to highlight people's faith in representation.

While making it possible for a reader to interact with stories, the paradox of the material and object-oriented approach exhibited in all three texts is that these reading body/text object relations are initiated by the breakdown of technologies, seemingly contradicting this thesis' attempt to use VR technology as a model for experiential reading. A further limitation in this thesis is that my thinking about VR as an artistic and narrative medium has been rather cynically premised on the technology's antiquated materiality together with my assumption that VR will not enter popular culture. While I qualify this supposition, this does not disavow the likely possibility of VR innovation being seized in the near-future, and of VR headsets, in belated line with the evolutionary path of other digital devices, becoming less material and more quotidian, in a way that renders this thesis as out of touch with the reality of VR technology. As Don Ihde

aptly cautions regarding philosophies premised on technology: 'Just as technologies may become antiquated and abandoned, so, I believe, should "philosophies of technology" be seen to become antiquated and abandoned!'.[1]However, I defend my approach to VR by arguing that if the texts explored in this thesis teach anything, it is that technology can fail at any time. There is therefore an urgency to seizing VR in its current state and finding ways to unplug its experiential and action-led qualities from the headset and relocate them within the bounds of literary texts, a medium which will remain a consistent means of understanding life in the contemporary age as technologies acceleratively develop and maybe one day collapse.

The limitations of an object-oriented and materialist approach to fiction as a phenomenological way to evoke the sensuous, intuitive reading body is that it does not provide a means for the reader to engage with a contemporary reality being gradually dematerialized by accelerative technological and environmental change. The compromises entailed by approaching texts as objects are evident in all three texts. In *Station Eleven,* Mandel self-reflexively wrestles with the compromise of the book's immersivity, of the reader's investment in plot, by her rendering of texts as interactive objects. In *The Silence,* DeLillo does away with the reader's immersion in the story entirely through the illegible prose and the subsequently unreadable character of the text. While the least interactive text of the three, it in Alam's *LTWB* that the limitations of materialist thought, and the need for a narrative means for people to physically interact with immaterial phenomena like change, are directly addressed.

I argue that the narrative compromises and tensions exhibited in these three texts form a central tenet of what I have called "the virtual realist turn in 21st century literature". While none of these books explicitly address VR, in combination they help to approach a conclusive definition of what a "virtual realist" novel entails. Firstly, a virtual realist novel is about sustaining, or metafictionally addressing, the uneasy balance between the materiality of the text and its immaterial qualities such as ideas, theories, and abstract, as well as mediating the immersive ideals of fiction rooted in the literary tradition with the text's interactive properties. To ensure that the text is specific to VR technology, the text should be contextually foregrounded within the digital age, and the complex matters of what is lost and gained by humanity's intimate relation to devices, as the second key feature of virtual realism. Thirdly, a virtual realist novel reveals the embodied

potential of reading literature, and is metafictionally attentive to the reader experience of the text. This may be achieved by depicting characters as readers, audience members or recipients of the news media as seen in *Station Eleven* and *LTWB*, or, by prompting the reader to physically engage with a text directly as seen in *The Silence*.

An unexpected outcome of this thesis about VR as a mode of experiential reading is its reclamation of the productivity of post/apocalyptic fiction. The contemporary ubiquity of post/apocalyptic fiction invites people to voyeuristically experience world ending again and again as entertainment, to the effect of trivializing the severity of global catastrophe and the impetus for collective action. However, given that the consumption of fiction stories about catastrophe dwarfs that of non-fiction news media, I argue that there is a great potential in the post/apocalypse genre to incite positive action from readers. In this sense, the audience of this thesis may range from political activists trying to understand the cultural barriers to mobilizing collective action in response to catastrophe, to literary theorists attentive to genre and the different reader experiences produced by different storytelling forms, to those working within the digital arts who are seizing the shifting potential of digital technologies like VR to create multi-sensory and multi-modal storytelling forms. I anticipate that any reader drawn to this thesis' objective to use VR as a model for experiential reading recognizes the need for stories which are commensurate to the precarious times we live in, in forms which work against the routinization of our attention, and which put the possibility of an alternate near-future reality to the ecological emergency that humanity is destined towards quite literally within reach.

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