

Digital Literary Landmarks of Aotearoa New Zealand

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Abstract

Digital literary forms in and of Aotearoa New Zealand have yet to be adequately historicised, and such works – and their authors – risk being lost to New Zealand’s literary history. Addressing the added challenge of doing history in the digital age, I offer an analytical survey of early digital literary works in or of NZ based around the categories of fiction, poetry, performance, and videogames. Cultivating a digital literary history serves us well not only in situating individual works of creative media in our collective cultural heritage but also in situating New Zealand amid broader networked culture.

Aotearoa New Zealand’s first work of digitally hyperlinked narrative fiction might be Allen O’Leary’s self-published “The Casino Project” in 1998.¹ Written in response to the opening of Melbourne’s Crown Casino on the south bank of the Yarra River, it is a horror story of sorts, where readers can choose to “gamble” or “shop” or simply “park” their car in the building’s menacing underground parking garage. At least this could be the first hypertext fiction written by a New Zealander, as O’Leary had by that time shifted to Australia to work and live. Then again, it might not actually qualify as the first, given that it was only 60 percent completed. That landmark might be better placed with another text by O’Leary, “A Thread,” self-published in 2000. A “short hypertext work about consequences,” it tells of an encounter between strangers, a man and a woman, in which the woman pulls at a “single red thread” that is hanging out from the man’s jacket.² Of course, there may also have been other, earlier firsts that did not have the fortune or happenstance of being self-curated on a website continuously from the late 1990s.

Digital fiction and digital literary forms in and of New Zealand more generally have yet to be adequately historicised. Nonetheless, any discussion of “firsts” functions merely as a provocation, a critical disturbance meant to kick up a descriptive dust cloud long enough to think through some new configurations and categories before settling again. Claims for primacy, after all, smack of hierarchy and hegemony, often operating as attractors for the abuses of colonial and monocultural legacy – even when that abuse simply takes the form of neglect. So my focus falls less on the *first* of a kind, and more on the *kind* of “digital literary” progeny indexed by the field of digital (or electronic) literature.³ That field would include the various forms of NZ-made digitally interactive fiction and poetry, digitally augmented online performance art, and literary videogames, all of which have yet to be addressed as a kindred if not coherent body of cultural production with significant value to the literary history of this place. My purpose is thus to identify some digital literary landmarks en route to a broader understanding of this distinctively digital literary history. In that spirit, O’Leary’s digital thread is also a fitting figure to tug on, allowing us to first reveal more about the authors and works of NZ’s early digital culture and then to tether these Oceanic contributions not only to one another but also to the wider field of digital art and literature.

In the now classic hypertext fiction work *Patchwork Girl*, Shelley Jackson’s disoriented narrator (named “Mary Shelley”) describes history as nothing more than “a haphazard hopscotch through other present moments.”⁴ The reference attaches to the experience of the then emergent form of hypertext fiction as much as it does to an emergent sense of (digital) history. I take a methodological cue from both Jackson’s embrace of play and disavowal of

totality. At the same time, I acknowledge the added challenge of historicising anything connected to the World Wide Web – stuck, as it would appear, in a perpetual present tense. We are caught in what Michael Joyce has described as the “anticipatory state of constant nextness” in turn.⁵ There are two factors in play. First, there is already a need to do history differently in the digital age. As Alan Liu suggests, it is not just history that requires renewed interrogation, but how each era creates their own peculiar relationship to it; for him, our *sense* of history changes by way of a number of ever-shifting parameters. Adopting a collective voice that rhetorically speaks for this very sense of history, Liu frames the challenge as such:

We worry that [...] you will forget the sense of history in the thrill of the instant click, get, post, comment, like, tweet, and other ephemera of “creative destruction,” “disruption,” or “innovation” that accumulate value mainly for entities, such as corporations, with the least stake in a sense of history.⁶

A second factor is that historicizing digital-born works presents its own distinct set of challenges, from the ever-expiring hardware and software platforms to ad hoc archiving (or not) typically in unsupported informal networks online. My attention falls mainly on the decade between 1995 and 2005, which roughly follows the popular adoption of the Web for personal (and indeed artistic) purposes and therefore best captures its early literary flourishes. In that respect, when talking about some early digital “firsts” that follow, I am mostly referring to first published (including self-published) works on the Web, while acknowledging that there are likely to be pre-Web works of digital fiction and poetry in or of NZ, which would be predecessors. For that matter, there are also *pre-digital* works in creative media that anticipate digital works in significant ways, with Len Lye positioned at the headwaters of that tradition in NZ.

In what follows I address this dual trouble with doing digital literary history in the digital age, further localizing that issue in the context of New Zealand. I then gesture toward some possible ways out of network culture’s ahistorical traps by using Liu’s framework to think through our sense of history in the digital age. Next, I offer an analytically minded survey of early digital literary works in or of NZ based around the categories of fiction, poetry, performance, and videogames. The invocation of “landmarks” for this survey is deliberately incongruous. Landmarks are physical and (often literally) concrete; they serve as navigational markers but also anchor gatherings, marking commemorations or significant historical events. Today people are more likely to go to Facebook and Twitter for such purposes, in a more dispersed yet more participatory post-pandemic mass – with “mass” taken in both the sense of *scale* and of *worship*, of which there is plenty in the realm of social media influencing. A notion of marking the digital literary landscape is, however, a necessary anachronism for critical ends. We can think of slowing down and concretizing the practice of media consumption as a precondition for historicizing – perhaps in the rare mode of pausing just long enough to read the text on a monument in passing. I conclude the survey with some reflections on the polarizing sense of the Web itself as the arch-network of literary history.

Beyond what should be the self-evident value of doing literary historical work, studying (and preserving) works of digital art and literature carries its own inherent significance. The experience of interactive and multi-threaded textuality, characteristic of so much of early “new media” experimentation, is now the norm in a digital culture. Arguably, our default narrative epistemology too has changed, and it invariably involves clicking, tapping, and scrolling through networks of stories. Digital literary art continues to offer narratives and modes of narration that allow us to negotiate information society and mitigate what Liu calls the “temporality of shared culture” in the new millennium.⁷ It uses the network to speak back to

the network, keeping the neo-authoritarian constraints of corporate and consumer culture at one critical remove. Therefore, cultivating a digital literary history serves us well not only in situating individual works of creative media in our collective cultural heritage but also in situating Aotearoa New Zealand amid broader networked culture.

The Trouble with Digital Literary History

During the first global lockdowns in 2020, there were a number of creative appropriations of online space as creative virtual performance space, followed by a number of errant claims of online “first’s” in this vein. A group of digital artists, including New Zealander Helen Varley Jamieson, who coined the term “cyberperformance” two decades prior, created a video compilation called “Before the First.”⁸ At once a celebration and a corrective, it curated excerpts of many of the actual firsts for networked and online performance, dating back to 1992. The kind of technocultural amnesia these artists were compelled to address is arguably endemic; digital culture is arguably ahistorical. We might also see the Web as remarkably un-literary – whatever the Internet thinks, it thinks always in terms of the now. In any case, our saturation with digital culture paradoxically troubles our ability to historicise it. For a body of work so accessible in the utilitarian sense, its history tends to be – much like a familiar server error – not found. As perpetual hardware and software upgrades satisfy our sociotechnical cravings, they complicate their own claims to posterity. We can add the fact that in such a new field, terminology undergoes its own accelerated evolution, one that is often over-determined by technical advances. It is common to find new genres grow out of new platforms, as in the case of Twitter fiction, or in formulations such as “new media novels” on DVD, or in “novellas for iPad.”⁹

It is possible, however, to further localize the trouble with historicising digital literary history in NZ. In the US and the UK there was a comparably clearer progression from the initial hype of hypertext in the 1990s carrying across from academic to popular contexts. A visible marker was Robert Coover’s 1992 publication of “The End of Books” in the *New York Times*, which sparked some rather public critique – however misguided some of it was in its positioning multi-linear digital novels as a threat to the future of literature or reading.¹⁰ Nonetheless, there were communities, modest and mostly academic in nature, that had coalesced around this new form of literary experimentation in digital environments. One attractor for this community of practice was the Storyspace hypertext authoring software, which was developed in 1987 along with its own proprietary publisher in Eastgate Systems. In NZ, by contrast, digital literary artifacts such as hypertexts and other forms of digital fiction would be stuck in a kind of quantum contradiction, perpetually old and new at the same time. For example, the first dissertation on hypertext and literature was completed in 1995 at Massey University by Jon Bridges (who later went on to become a television producer, media host, actor, and comedian in NZ).¹¹ Ten years later an article appeared in the *NZ Herald* reporting on hypertext fiction, and specifically the fact that nobody had much of an idea of what it was. That included the reporter writing the article and the students she interviewed, who were bamboozled when encountering “hyperfiction” in their NCEA Level 3 English exam.¹²

There were pockets of innovative academic teaching: from the late 1990s and into the mid-2000s Brian Opie taught hypertext fiction created with Storyspace (first on floppy discs and later CDs) in his English courses at Victoria University of Wellington. I first taught digital fiction and poetry along with literary videogames at the University of Canterbury in 2005. From 2002 to 2004, at the University of Otago, Mark McGuire (Design Studies) and Rochelle Simmons (English) collaborated to design interactive teaching modules using the same Storyspace application, putting principles of hypermedia and nonlinear narrativity into

practice. More generally, however, academic activity around or peer-reviewed publishing venues for NZ-made digital-born work was scarce. (That fact also underscores the double-edged nature of self-publishing works online, which places the power of distribution and the process of credentialising in constant tension.) One exception was *Trout* journal, published between 1997 and 2012 out of Auckland. It featured poetry, prose, reviews, interviews, photography, and artwork of or about NZ and the Pacific, and was one of the few venues publishing digital-born creative work. It was edited by Brian Flaherty, Anne Kennedy, Tony Murrow, and Robert Sullivan, whose editorial introductions over that time tell their own story of the enthusiastic yet sceptical adoption of hypertext writing technology for creative work. In fact, Sullivan's first preface reflects some of the cyber-utopian rhetoric common to the nascent field: "In this visual world, where moving image has become the cultural lingua franca for so many, html presents a fight-back for text-based literature."¹³ Another notable example, though one oriented less toward literary practice and more toward visual, video, and installation art, is the independent Aotearoa Digital Arts network (ADA). Growing out of a digital artist residency at the University of Waikato, ADA was founded in 2002 and has since been the only national organisation dedicated to the promotion and preservation of the digital arts in NZ. Its Artbase catalogues works by decade as well as category, with some entries going back to the 1970s.¹⁴

Institutional and communitarian factors were accompanied by other cultural, social, and technical ones in complicating the emergence of a digital literary scene in NZ. For example, Ross Nepia Himona, a military veteran and writer among the first Māori to establish a presence on the World Wide Web, has described the reactionary treatment he received as an early adopter. Having created some of the first websites and domains where Māori culture was shared by and for Māori, Himona recalls the objections by some members of his own iwi to his sharing genealogical information online.¹⁵ In a related vein, it is possible to speculate that cultural forces may have contributed a reluctance to put forth, celebrate, or even preserve work that is so often by its digital nature *self*-published. Not only is there a recognized cultural humility that has characterized New Zealanders (beware of the Tall Poppy), Māori culture similarly cautions against excessive self-promotion, or whakahīhī. For an empirical illustration, it is worth noting that in creating the "Before the First" compilation, Jamieson does not include any of her own pioneering cyberperformance works in the video.

Finally, New Zealand's relative geographical isolation contributed, at least early on, to a relative technical isolation as well. Not only was the infrastructural groundwork for stable internet access in place later here than in the global centres, an accident of NZ internet history meant that customers receiving dial-up traffic to their own sites in the late 1990s were charged per minute.¹⁶ The so-called "internet tax" was Telecom's (now Spark) early response to mitigate the competition of free internet service providers (ISPs). After grossly underestimating the tidal volume of traffic that would ensue, it was paying out significant interconnection fees to its diminutive rival, Clear. As Sullivan's *Trout* editorial around that same time explains, with regard to its submissions process, "Since New Zealand does not have great bandwidth, we will not be able to accept large image or sound files, or any video files. The peculiarities of New Zealand's on-line charging regime means that anyone who views our site incurs a small cost for us."¹⁷ All in all, these local factors compounded the more pervasive ahistoricism produced and perpetuated by network culture, thus creating a digital literary landscape bereft of some valuable landmarks.

Nevertheless, if our sense of the *network* displaces our sense of *history*, then perhaps we can use a network sensibility to our advantage when doing digital literary history. In his most recent book, *Friending the Past*, Liu pushes back against the broader conception of ahistorical despair

and establishes that “the digital age does have a sense of history in its own measure.”¹⁸ He reminds us, moreover, that History with a capital H and with all its imperialistic and nationalistic connotations is not necessarily a friend you would want to have in the first place. Liu’s intervention extends other lines of critical inquiry that attempt to think through the radical experiential shifts wrought by the Web and their implications for literary culture more specifically. For example, in William Mitchell’s 2003 book *Me++: the Cyborg Self and the Networked City*, he posited the idea of an “electronic present continuous” voice brought about by synchronous communications technologies from the telegraph and telephone on. He explains the associated phenomenon of “simultaneous, cross-connected subjectivities” with reference to the multiple threads of consciousness traced by James Joyce in *Ulysses*.¹⁹ Mitchell’s notion recalls the work of another modernist in Gertrude Stein’s “continuous present” tense, which aspired toward a transcendent temporality through repetition and syntactical play in language.

What makes Liu’s contribution significant, however, is that it goes beyond a singular focus on temporality and a fixation on the accelerated pace of techno-cultural change. Indeed, these earlier moves effectively invert a sense of subjective timelessness typified by earlier cultural epochs, such as the wandering aesthete of the 19th century, for whom time moves so slowly it is rendered irrelevant; as Kierkegaard’s aesthete memorably says, “Time flows, life is a stream, people say, and so on. I do not notice it. Time stands still, and I with it.”²⁰ Liu develops a systematic model of parameters that characterise – and historicise – the ways in which we think of and relate to history. For him, the sense of history is held by three “paradigmatic” parameters: ontological, epistemological, and socio-historical. The *ontological* is marked by a play between “presence and absence,” the *epistemological* is marked by a play between “understanding and sensation,” and the *socio-historical* is both “social and temporal” in nature. Four additional parameters “fine-tune” these main parameters, and they accommodate history’s contradictory nature in the process. For example, they explain how our sense of history can be “individual and collective,” “punctual and durational,” “static and dynamic,” and can manifest both “materially” or in the form of “pattern” or “design.”²¹ When Liu claims that the digital age does have a sense of history “in its own measure,” the focus is thus on adapting the *measure*, which is “not just big-data metrics [...] but also something like a poetic measure – a particular lilt and rhythm of experiencing life together in history.”²² Clearly, this sense of history in the digital age accommodates an expressly literary sensibility.

These parameters can guide us in historicising digital art and literature in turn. In line with his long-standing engagement with digital humanities methodologies, for example, Liu advocates for literary studies adopting methods more akin to a “network archaeology,” which involves attending to the networks of platforms, versions, collaborations, or communities that orbit a singular work. Such media assemblages take precedence over any one iteration of a text. In a sense, from here on, all history will be media-historical, by which I mean mediated by the digital networks in which it circulates and driven by the data that computationally circumscribe it. We will also come to know it (epistemologically) and feel it (ontologically) in a different way – especially when the weight of history takes the form of weightless bytes instead of hefty tomes.

Digital Literary Fiction

It was in fact a history of media course at university that helped mobilise Allen O’Leary’s literary experiments in digital environments. O’Leary began establishing himself as a playwright and actor in and around Wellington in 1995 and 1996 before moving overseas to Melbourne where he enrolled at Swinburne University. While studying hypertext writing along

with media theory there, he became among the first New Zealanders to create works of what is now called digital fiction (and then more commonly called hypertext fiction). O’Leary self-published “The Casino Project” in 1998 as a work in progress, and though it remains incomplete, it remains a landmark for its technical achievement.²³ Even though HTML frames have long been abandoned for the compatibility and accessibility nightmares they caused, O’Leary deployed them to great effect to create what were then sophisticated structures of narrative variation. As he explains:

The early sections use frames to create multi-linear narratives with a few variations. These are pretty simple but using panels both independently and together enables you to increase the visual complexity. [...] With frames you can leave something behind, or randomly load something, the effect being akin to “variations on a theme.” Don’t underestimate Bach to show you how to do anything with theme and time.²⁴

In such contexts, technical virtuosity is never divorced from the writing, and thematically, O’Leary’s “The Casino Project” reflects anxieties of an individual and collective nature. At one stage, for example, the protagonist finds himself not only trapped in a deteriorating relationship but also in the underground parking garage of the casino, which he describes as a “beast with ten thousand eyes”: “I see myself from their point of view... They’re sitting in the control box, looking at this idiot going around and around the carpark, circling like a lost pigeon.”²⁵ “The Casino Project” was a testbed for the emerging tools for do-it-yourself Web designers at the time and now serves as a notable technical curio piece. But more generally, it represents a timely and prescient comment on material excess even as collective attention was shifting to virtual spaces marked by seeming immateriality.²⁶

In terms of landmarking New Zealand’s first completed digital fiction, O’Leary’s “A Thread” (2000) is a likely candidate. The story begins with a woman’s whimsical tug on an errant red thread dangling from a man’s jacket, which is the start of an amorous relationship between the two. It proceeds, in three separate parts, to follow that relationship as it begins to unravel and come undone. Each part has a distinct design and narrative voice. The first, also titled “thread,” stages the encounter in retrospect. After the initial tug, for example, the man recounts: “And then she realized that she didn’t know me and didn’t know what to do next,” with the available link, reflexively, on the phrase “what to do next.” On selecting this link, the woman’s thoughts display adjacently, as she recalls how their eyes locked in mutual surprise, and then: “I had to just say something.”²⁷ The second and third parts are called “code,” and “stream,” and read as comparably more domesticated sequels to the initial romantic incident, including an argument over feeding the cat. These scenes are nonetheless tinged with moments of intimate reflection. “Code” similarly takes the form of split columns and conveys a poetic dialogue of sorts. The concluding “stream” conveys several domestic vignettes through a single block of prose, narrated in third-person, with a number of embedded links. Overall, the interface makes graceful, minimalist use of graphics in the form of a red thread image as a backdrop that tethers the text displayed. It makes innovative use of the split screen effect, whereby some links call up text in the left-hand column that reflects the man’s thoughts, while the other links to the right render the thoughtscape of the woman. The result is a compelling social asynchrony in which each narrate their own view of the encounter – an encounter that assumes added resonance two decades on in a post-pandemic age that introduced social distancing. In 2000, “A Thread” won a short-lived award in “Hypertext Writing,” sponsored, as O’Leary recalls, perhaps somewhat oddly, by the clothing company Country Road in 2000.²⁸

In surveying early forms of digital narrative, we can look laterally to some hybrid works, where prose and poetry merge (genre in this context is arguably by default more fluid). We could cite

Auckland-based Judy Haswell's 1996 work "The Rain in Japan" as among the earliest of these.²⁹ Published in the first issue of *Trout* online journal, it is a brief travelogue that recounts the narrator's journey to a Buddhist monastery in Japan. As they "accumulate details" of their rich sensory experience, they use links as explanatory glosses or thoughtful asides. In 1999, the text was one of ten (from 190 submissions) named "Best Poems Online" by the international online journal *Riding the Meridian*.³⁰ Another one of Haswell's early works that infuses creative nonfiction with hypertext is "Mary Reading," published in *Trout* 4 (1998). The piece muses on the curious fact that many medieval and Renaissance depictions of Mary at the Annunciation place a book in her hands even though she "would not have been a prolific reader."³¹

If lack of both community and institutional presence at a regional or national level in NZ troubled digital fiction's foothold, another factor was the relative historical separation, also on an international level, of the hypertext community and that of parser-based text adventures and Interactive Fiction (or IF).³² A cognate form of digital fiction, and indeed its genealogical ancestor, IFs require repeated textual input in order for the user to progress, and it provides textual output for each input in turn. Although they still occupy a conspicuous midpoint on any continuum between *story* and *game*, IFs tend to involve more puzzle-solving; they also tend to have an optimal outcome or winning state. Given their proximity to early computer programming and hacker culture, their community was comparably more visible and more clearly defined. As early as 1988, for example, New Zealander Andrew Kerr developed a role-playing game (untitled and unpublished) for the Sega SC3000 platform that deploys a text adventure schema.³³

Given the homegrown and predominantly non-commercial nature of IF, many of these creations have been lost to posterity. There are some significant indications, however, of the form's resurgence and wider recognition, coupled with a more holistic understanding of link-based hypertexts or parser-based interactive fictions as kindred works of digital literature. New Zealand game writer Edwin McRae, celebrated for his writing for one of NZ's best-known videogames, *Path of Exile* (2013), recalls his own experiments with the Inform 7 platform around 2010. He developed, but never completed, an IF called "Skeleton Eater," in which players explored a creepy department store that contained a child-eating escalator.³⁴ McRae would go on to write for *Guardian Maia*, an Interactive Fiction released in 2018.³⁵ A historical sci-fi hybrid, it explores Māori culture through the player-character of a revered guardian, Maia. In 2019, an Interactive Fiction created in NZ won the Sir Julius Vogel Award for Best Novella and was a Nebula Award finalist for Game Writing. *The Martian Job* is a sprawling 150,000-word IF created by Wellington-based M. Darusha Wehm using the Choice of Games authoring platform. The promotional blurb invites you to "rob the first Martian casino and find out who really rules the planet! Crack a safe, break some hearts, start a revolution, or get rich beyond the stars!"³⁶ The work innovates by way of its gender diverse options for player-characters; more broadly, it serves as a telling marker for the evolution of NZ digital fiction in terms of both its artistry and engagement with social justice imperatives.

Digital Literary Poetry

Compared to digital fiction, the early history of digital poetry in New Zealand offers more of a bounty: not only did *Trout* journal provide a publication line for those intent to test the lyrical quality of links, but the establishment of the New Zealand Electronic Poetry Centre (nzepec) in 2001 also provided a valuable institutional home.³⁷ Modelled after the Electronic Poetry Center at SUNY Buffalo, the nzepec dedicates a full section on its site to digital-born poetry along with the customary collection of author pages, essays, and interviews. The digital poetry section

includes links (many now broken) to a chronology of NZ poetry online, roughly a dozen NZ digital poems, articles on digital poetry by NZ scholars, and a University of Auckland course outline for “Poetry Off the Page” co-convened by Helen Sword and Michele Leggott. Both *Trout* and the nzepc were based in Auckland, which became the nerve centre for digital poetry in NZ. The designation was bolstered by key personnel taking up university roles there over the years, such as Lisa Samuels, Robert Sullivan, and Brian Flaherty as well as Sword and Leggott, all of whom have been involved in teaching or creating digital poetry.

Among the earliest landmarks for digital-born poetry is Flaherty’s “Wittgenstein’s Sun” (1996), published in the first issue of *Trout*. The title recalls the famous conversation between G.E.M. Anscombe and the philosopher in which he asks her why people always say it was natural to assume that the sun went around the earth rather than the earth rotating. When she suggests that it is because it just looks that way, Wittgenstein asks, “What would it have looked like if it had looked as though the Earth was rotating?”³⁸ Using a palette of coloured fonts and backdrops, linked images, and some short animated effects, Flaherty explores the sensory impression of digital text and image, and the way in which our senses are led – and led astray – is central to this particular poem. The speaker stages an opening scene in which they accompany a “blinded colleague” who “sketches portraits in crayon”: “The ears, nose, eyes are memory perfect / but the face does not connect.”³⁹ Scenes shift abruptly, from Trafalgar Square to the sacred mountain of Machapuchare in Nepal. (Arguably, the repeated dis- and re-orientation, from node through link to new node, is itself a distinctive quality of the form.)⁴⁰ In one passage, the sun becomes an “orange apostrophe,” with that phrase anchoring a link that takes readers to an image of a gigantic crayon-like and apostrophe-shaped sun. The detail speaks reflexively to the speaker’s penchant for seeing the landscape itself in linguistic terms. Yet this specific mark of possession also reminds us that no matter how much we try to impose our symbols in order to apprehend our surroundings, the sun continues to elude us quite regularly. We are, repeatedly in the poem, at a loss for perspective. Even the invocation of Machapuchare is significant in that its sanctified peak cannot be climbed due to an historical ban by the Nepalese. It too will not be possessed through exploration or expedition – it is a symbol of unobtainable perspective.⁴¹ The poem concludes with a similar kind of epistemological quandary, with the colleague saying, “This is the earth, that is the sky,” and the speaker responding, “but I am sure of nothing.”⁴²

That inaugural issue of *Trout* is replete with digital poems demonstrating a cerebral deployment of links. Another piece by Flaherty, “This Temporary Arrangement,” is a meditation on mortality set against a raging wildfire backdrop on the Port Hills of Christchurch, and uses links to intermix Biblical Psalms and indigenous proverbs with the verse.⁴³ Thomas Mitchell’s “Turning away from the sunlight,” which centres on the Alcázar castle in Segovia, Spain, is a notable early experiment with link density, that is, the number of links in relation to the number of nodes (or passages). His first passage contains four links, with several of the links in the subsequent passages creating loops that motivate a multilinear reading.⁴⁴ A subsequent work by Mitchell in *Trout 2*, “Smith and Adams” uses links to stage counterfactual scenes with two men: Smith, who is working on rules for lawn tennis, and Adams, who is looking up words for his crossword puzzle. Just two passages comprise the piece, with one link in each that effectively toggles between two possible futures. In one, the two men are sheltered in the war trenches amid the “afternoon shelling,” which was “on time as always.” That scene concludes as Adams is wounded, perhaps mortally. In the other, the two men appear to be sharing a room in a quarantine ward of a hospital. A fuse blows the television out, and the scene ends as they begin to talk.⁴⁵ Mitchell’s short text recalls the mutually exclusive narrative branches typical

of Interactive Fiction, and marks an overt gesture toward the kind of ontological play of possible worlds that digital fiction would afford.

A dramatic display of multilinear verse plays out in Robert Sullivan's "USA/CANADA by Amtrack," which tells of the iconic North American train trip albeit from an indigenous viewpoint, decolonizing it in process.⁴⁶ There are 16 links in the poem's dense, 244-word opening passage. Some take us to further "stanzas" (granting the entirely relative nature of that bibliographical unit in digitally networked poetry). Others take us to autobiographical reflections in prose, and yet others link to secondary citations, such as a line from Hone Tuwhare's iconic poem "Rain." The train metaphor orchestrates a reflexive play for the reader, whose experience departs from the conventional linearity it epitomizes. In a close analysis of Sullivan's piece, Gray Gibson notes that "the hyperlinks can be seen to invoke stops along his way, diversions from the central train journey itself."⁴⁷ In terms of the graphical design, Gibson adds that when arriving at new passages, unexpected capitalisations on key words such as RAIN "jolted me to attention, perhaps in the same way that rain might as it hits the window of your carriage."⁴⁸

If we cast a wider curatorial net, one that acknowledges screen animation if not hyperlinked interactivity per se, then Ross Nepia Himona's "Reflections on Running" could be described, in a roundabout way, as among New Zealand's earliest digital poems. In addition to creating some of the first Māori websites and domains, Himona was a founding member of the Māori Internet Society (MIS). His sites include essays, commentary, and poetry. "Reflections on Running" was self-published on the Web in 1996, with flax-like borders and an animated GIF of a running Māori warrior added to the original text. But the poem was written in the early 1980s, and first published in 1986, in a collection called *Heroes and Sparrows: A Celebration of Running*, edited by Roger Robinson.⁴⁹ "Reflections on Running" has been republished many times, and in many countries, since then. It also features in the NZ Electronic Poetry Centre. But it only appears with the running Māori animated GIF on Himona's self-published sites, Maaori.com and Maorinews.com. The poem itself weaves cultural narratives with its running rhythm: "I run with Maui-tikitiki-a-Taranga, / Trickster Shaman. / We play, adventure, seek challenge; / pit ourselves against ourselves, / and all who would play with us. / With Maui I laugh at the World."⁵⁰ Clearly, Himona's example runs counter to stereotypical metanarratives of new media encounter for indigenous populations, which tend to be framed by gross hegemonic asymmetry.⁵¹ As Himona explains:

Poetry and Essay are my preferred vehicles. And having been online since the early 90s, and having taken my newsletter online, I had already decided that the Internet would be my preferred medium. I thought of it as Mindspace, a new dimension of the Mind, where minds would connect directly with minds, enabled by technology. I also saw it as a medium where Māori would tell Māori stories unmediated by editors and publishers. A new Commons.⁵²

Himona continues to publish essays and poems on his site *Te Putatara*, which – roughly translating as "the herald" – also serves him as a *nom de plume*.

More recent landmarks would include Flaherty's "White Scarves" (2006), which uses nine fragments of kinetic text that scroll across the screen in variable directions, with inset images and sound.⁵³ Inspired by a quote from Jorge Luis Borges, a *Playboy* interview of Tom Waits, and a local Christchurch band called Into the Void, it was named among Best New Zealand Poems in 2006.⁵⁴ The fact that we can point to work from Flaherty that spans over 15 years makes him one of the few NZ artists with a digital literary oeuvre.⁵⁵ Another would be Helen

Sword who, from 2007, began gathering her digital poetry in *The Stoneflower Path* collection, which now includes some two dozen poems, many of which provide the option to be read as conventional poems along with the digital work.⁵⁶ Digital poetry has become more varied as it has evolved through creative computational practice in NZ. For example, writers Craig Cliff and Gregory Kan have both experimented with poetic text generation. While Robert Burns Fellow at the University of Otago in 2017, Cliff collaborated with Lech Szymanski in the Computer Science Department training digital neural networks using lyrics from Dunedin Sound bands to create what he calls found poems about Dunedin.⁵⁷ Kan's popular text manipulator "glass.leaves" allows users to enter any text and transform it according to a number of given variables.⁵⁸

Digital Literary Theatre

If the landscape of the early Web is challenging terrain for marking literary works of digital fiction and poetry, it is even more challenging for works of real-time, networked, and collaborative theatrical performance online. Such works are transient in nature and often conflate audience and performer. Some effectively take place in a dual setting that includes both the shared space online and the physical space where some of the players may gather. Aspects of online performance have distinct genealogical ties to earlier modes of literary expression in digital environments. For example, while centre-stage (or screen) is typically occupied by a mix of live video and graphical overlays in cyberformance (after Jamieson), textual chat applications run alongside the dominant visual frame. In a kind of paradox of narrative communication, the live text can both respond to and determine the live action. Indeed, for the earliest experiments in online performance, the textual channel constituted the action. In this respect, this digital literary form overlaps with text-based MUDs (for Multi-User Dungeons or Domains) that utilised synchronous text for worldbuilding and real-time social interaction.⁵⁹

Cyberformance also shares genealogical ties to Alternate Reality Games (ARGs), which gamify real-world scenarios and deploy collaboration across diverse networks and multiple media channels, often at large scale, toward potential collective solutions.⁶⁰ Another kindred form is "netprov" (for networked improvisation), a term coined around 2010 by Mark Marino and Rob Wittig to describe the practice of "creating stories that are networked, collaborative, and improvised in real time."⁶¹ What differentiates netprov and cyberformance is perhaps a matter of relative emphasis, with netprov leaning toward narrative and cyberformance leaning toward drama. As Marino and Wittig note, though practitioners typically craft game-like and theatrical experiences, "we are specifically interested in text-centric improvisation that has as its goal the creation of a narrative or narrative world."⁶² Netprov, moreover, self-identifies as a genre of digital literature, and is entrenched in the international community around that field and its official body of the Electronic Literature Organization (ELO).⁶³ That is not to suggest that cyberformance is not or should not be integrated into that same frame. In fact, my purpose is to put forth that very possibility. Cyberformance and netprov in particular should be understood not as discretely parallel lines but rather as braided strands. Nonetheless, with regard to genealogical context more broadly, if we are willing to indulge a leap back to broadcast video, then all live online theatre performance arguably dates back to live video art installations of the late 1970s.

NZ has a clearly established tradition in the online performance space, and its practitioners were connected to early global communities of practice around it. As Jamieson has documented, in 1994 a New Zealander participated in one of the parodic Shakespeare pieces "staged" via Internet Relay Chat by a virtual troupe called the Hamnet players, which was

founded by US-based actor and computer professional Stuart Harris. The identity of that player, however, remains unknown to this day, as they were located only by their username, “ValAgent,” and a NZ email address domain (belonging to the Wellington City Council), which was published in the early programme documentation.⁶⁴ Jamieson co-founded the online performance group Avatar Body Collision in 2002, which included West Coast-based artist Vicki Smith. Jamieson went on to complete her MA dissertation, “Adventures in Cyberformance: experiments at the interface of theatre and the internet” in 2008 at the Queensland University of Technology. The Avatar Body Collision group was instrumental in developing a purpose-built platform, called UpStage, that provided a virtual venue for their projects. UpStage started development in 2003 as a venue for the emerging performance group, with New Zealand digital artist Douglas Bagnall on programming. Jamieson and Smith coordinated its development and release along with the other founding members, UK-based Karla Ptacek and Finland-based Lennea Saarinen. The platform has been utilised by artists, students, performers, and community groups for over two decades running, and underwent a full infrastructure rebuild with its latest iteration launched at the Mobilise-Demobilise festival in 2021.

DTN2 (for Dress the Nation 2) in 2004 was the first public performance in the UpStage platform. It was a follow-up act to an initial virtual anti-war cyberformance called “Dress the Nation.” In DTN2, “a group of virtual performers attempt to restage their show, [but] times have changed and what was once a satirical indictment of war-mongering is now seen as an unpatriotic act.”⁶⁵ Both George Bush junior and senior feature in the performances, as reflected in following transcript excerpt from “Dress the Nation”:

bubba bush: what happened?
bubba bush: where'd the flag go?
sick //kee-gy: God Bless America and Canada
bubba bush: who are those women?
daddy bush: For cry an out loud son
bubba bush: dad?
bubba bush: !dad!
sick //kee-gy: omg
daddy bush: i told your Mom
bubba bush : thank god you're here
daddy bush: I told her
sick //kee-gy: Blame Canada?
daddy bush: I said Barbara
bubba bush : something crazy is happening
daddy bush: that boy is a peanut.⁶⁶

For the live performance, all text would have appeared in cartoonish speech bubbles emanating from graphical avatars on screen (where a colon precedes the line, it is rendered as a thought bubble). But the effect would still be disorienting, replete with unanswered questions and apparent non-sequiturs. The question that opens the excerpt, “What happened?” serves as an emblem for the entire experience, marking the epistemological void left in the absence of sequential narrative progression, which is backfilled with context-less dialogue or “chat.”

What ultimately makes such works literary is that same combination of traditional elements of narrative communication with the dynamics of live improvisation. More specifically, characterisation and worldbuilding backstories combine with what Espen Aarseth, in reference

to MUDs, describes as the “cognitive pressure” that creates a “kind of playground that preconditions the awareness of textual identity” in powerful ways.⁶⁷ The play of synchronous text can be constrained technologically as well as socially, as participants trace temporal leaps across the running chat log. Indeed, if humour is about timing, then frivolity is often temporally challenged in online performance. There is a further tension between conventional notions of literary work and the unvarnished, vernacular nature of the textual expression of networked theatrical performance in real-time. Such projects, moreover, make use of “vernacular media” of the day – from the earliest Internet Relay Chat (IRCs) to email, blogs, Facebook, and Twitter.⁶⁸ These qualities, however, arguably feed the literary deployment of cyberperformance, as it performs the role of social critic – albeit at one artistic remove – and responds, in so-called real-time, to current social and political crises. As a result of rampant role-play amid textual constraint, it is often poetry instead of platitudes that are “found” emerging from the vernacular. There is at least a constant element of literary surprise, such as an analogy that figures a president as peanut.

Digital Literary Games

A decade or so ago, any discussion of videogames with *literary* import would require an extended preamble and qualification. But these days perhaps only a short one is needed, due in large part to an artistic maturation of the field and the scholarly study of games making inroads through media studies, education, literary studies, and dedicated academic game studies programmes or centres. The deeper integration of videogames into the fields of digital humanities and digital literature has increased their visibility as cultural artefacts, and these fields have further encouraged a theoretical, historical, pedagogical, and even political approach to them. Such structural changes follow humanities scholars tracing a “literary turn” of contemporary videogames and a systematic categorization of “literary games” along what Astrid Ensslin calls a “literary-ludic spectrum.”⁶⁹

Historical and ethnographic work on hobbyist computing in New Zealand by Melanie Swalwell offers insight into early computer culture in the 1980s. Along with interviews and ethnographic work, Swalwell researched back issues of a computer club magazine published by Grandstand in their marketing push for the Sega SC3000 microcomputer. These magazines published code for game software submitted by their readers. One identifiable landmark in that respect was the publication of John Perry’s spaceship game *City Lander* in 1984, when Perry was just 13 years old.⁷⁰ In 1989 in Dunedin, Andrew Bradfield and Harvey Kong Tin developed scrolling shooter games *Laser Hawk* and *Hawkquest* for the Atari 8-bit platform. They are regarded as among NZ’s first arcade games.⁷¹ Most of these early games, not surprisingly, recapitulated “targeting” themes and physics dominant in mainstream gaming.

Some game creators, nonetheless, scripted elaborate backstories in their documentation (typically fantasy or sci-fi).⁷² SEGA SC3000 games developed by NZ programmer Michael Boyd, in particular, demonstrated a nascent literary games sensibility. Boyd created action sci-fi *Caverns of Karanor* in 1986, which won an award from NZ computer magazine Bits and Bytes for its programming. The same year he released fantasy adventure game *Sir Roderick’s Quest* (1986), with NZ-based Poseidon Software; its backstory opens with the protagonist, Sir Roderick, looking “down across the barren Almor Valley, toward the ruined castle at Almor in the distance, once his home.”⁷³ Boyd discusses his pursuit of worldbuilding in an attempt to engage players, at least in so far as it was possible in the rudimentary platforms of the day: “I was always trying to create a virtual world to immerse the player in.”⁷⁴ His efforts were clearly recognised by his peers. In an interview of NZ game collector Nick Hook, he refers to Boyd as “the greatest of the local SC-3000 developers,”⁷⁵ and Andrew Kerr has stated that “Michael

Boyd's games set the benchmark for what could be achieved with approximately 26Kb of RAM."⁷⁶ Nonetheless, on the whole, the early history of games in NZ, like elsewhere, was more invested in the ludic than the literary.

Two New Zealanders played pivotal roles in the seismic culture shift that situated games as vehicles for political and societal critique and popularised the notion that games could be artistic artefacts in themselves. Though both working overseas at the time, Katharine Neil and Julian Oliver were core members of the development team for *Escape from Woomera* (2004), an adventure game in which you played as Mustafa, an Iranian asylum seeker detained at a facility modelled on Australia's Woomera Immigration Reception and Processing Centre. In operation from 1999 to 2003, Woomera was at the forefront of protests and claims of human rights violations. Mustafa – detainee number RAR-124 – fears he will come to harm if deported back to Iran and, though surreptitious conversation with other detainees (taking the form of non-player-characters or NPCs), he must devise a plan of escape. The game features a "hope meter" that runs out as he nears either deportation or capture. The developers re-purposed the game engine of popular first-person shooter game *Half-Life* to create what was an advanced graphical world at the time. But as Cindy Poremba writes, the game "succeeds less by immersing players in a physical space, or revealing truths about the logic of Woomera and detainee strategy, and more in crafting insight into the enacted subjectivity of Woomera refugees, read through the player's embodied gameplay experience."⁷⁷

Thus, it is not only the game's function as societal critique but also the examination of subjective experience through its enacted narrative that makes it literary. It is necessary, however, to emphasise the revisionist and recuperative move made by placing the game as an antecedent of literary games to come – games that would more commonly be met with a celebration of their social cause. *Escape from Woomera* was met with controversy and triggered fierce debate that extended to the Australian government.⁷⁸ After initially receiving funding by the Australia Council for the Arts, no further funding was received and only a prototype comprising roughly 30 minutes of gameplay was completed. Nonetheless, it gained international attention and has been cited among the world's first "documentary games."⁷⁹ Documentary games share a strong affinity with what game developer Gonzalo Frasca, known for his politically charged simulation game *September 12th*, has called "newsgaming," a game genre where "simulation meets political cartoons."⁸⁰ As aesthetic agents of cultural critique, both "documentary games" and "newsgames" fall readily under the wider rubric of literary games, especially when such works are narrative-driven or text-based.

Julian Oliver's own oeuvre, while focused mostly on creative media art installation, includes other works that would merit the distinction of literary games. Multiple award-winning *levelHead* (2008) is a spatial memory game that uses Augmented Reality (AR) and a single plastic cube as its interface. A screen displays a little character, in silhouette, inside little rooms "logically connected by doors," and players tilt the cube in an attempt to find the exit. Oliver created the game in the spirit of the ancient arts of memory and frames *levelHead* as a playful comment on the digital architectures of memory that shape our contemporary experience:

"Some doors lead nowhere and will send the character back to the room they started in, a trick designed to challenge the player's spatial memory. Which doors belong to which rooms?"⁸¹

Although *levelHead* involves no textual interaction and is arguably anti-narrative in nature, its visual composition and gameplay evokes the kind of existential architecture of both M.C.

Escher's impossible stairways in his famous lithograph *Relativity* (1953) or Samuel Beckett's short story *The Lost Ones* (1971).

Signs of a literary turn in gaming in NZ were evident at least as early as 2007. That year Morgan Oliver (no relation to Julian) created a gallery installation that staged creative subversions of mainstream gaming. *New Work for PCs* used motion detection sensors to respond to each visitor entering the gallery room, which exploited the stark white gallery space as a site for virtual projection. Each time someone entered the space, a game character was randomly generated and projected on the wall as a virtual avatar. While actual visitors to the gallery could leave at any time, their virtual avatars could not. The room eventually succumbs to virtual overpopulation with the number of represented figures, at which point the next phase of the work explodes the characters into "chunks of digital flesh."⁸² The final phase introduces a series of large, noisy monsters into the scene, forcing anyone who remains to take faux evasive action. There is no attempt at immersion or verisimilitude, only "cartoonish violence" that Oliver has described as "a moronic reduction of video game logic to its most basic functions: spawn/kill."⁸³ Oliver's work, however, is not simply a critique of videogame violence. Rather, in conceptualising games as "image-makers of great complexity" and "tools for creating autonomous digital constructs," he frames his *New Work for PCs* as a "transparent model" with which to analyse games and gameplay as well as a "demonstration of the potential of play to become art."⁸⁴

A Riff on the GIF

The preceding tour of digital literary landmarks is designed not to reinforce their discrete categories but rather to facilitate return journeys to what is now a discrete field. In that spirit, I wish to return to two of the works surveyed and conclude with a musing on a curious commonality between them in the form of an animated GIF. Readers of Allen O'Leary's "The Casino Project" will invariably encounter an image of a man running inserted amid the text on several frames of its networked narrative. Readers of Ross Himona's "Reflections on Running" will encounter an image of a Māori warrior in full stride at the top of the poem's stanzas. Graphics Interchange Format (or GIF) was one of the first image formats commonly used on Web sites, and even though it was released initially in 1987, a seemingly modest revelation came in 1995, when Netscape Navigator introduced the ability for an animated GIF to loop. This functionality transformed the GIF into a symbol for the reuse and recycle ethic of the Web, especially since it allowed do-it-yourself Web denizens to do what were then considered some fairly sophisticated special effects in a cost-effective way.

The running figure might take on extra resonance in an expressly digital literary sense. After all, the symbol is seen in these early texts typically running left to right, perhaps an oblique comment on a latent legibility, carried over – and remediated – from print conventions.⁸⁵ It serves as a comment, more broadly, on the inherent textuality of the Web and how we read it. The notion of running across a "page," a space conventionally reserved for reading, is thus an overt marker of the movement of literatures and literacies across media. Thus, the running man – an icon used generically to denote "on my way" – evokes the elation of a new form of movement, in both aesthetic and infrastructural terms. We are running our programs, that is, until they crash, which was a comparably more common occurrence for early digital practitioners. We can recall Paul Virilio's observation that every new technology brings with it some new form of accident.⁸⁶

In the case of O'Leary and Himona more specifically, we can read one image as running *away*, in the form of escape from a windowless casino and dead-end relationship, whereas the other

is running *toward*, in pursuit of open earth and sky. One embodies anxiety and paranoia, the other transcendence. The image – and its reflection on running – thus serves as a meta-comment on the paradoxical attraction and repulsion of the World Wide Web, for those who had a supra-historical sense of what it could and would become. It also evokes broader questions for the emerging identity of digital literary forms: is it ultimately, or definitively, more about *screens*, about *interactivity*, or about *movement*? All in all, this runner suspended in space but striding infinitely in time is emblematic of an emerging sense of digital literary history. It is a visual embodiment of Liu’s parameter of history as, at once, static and dynamic.

Part of the beauty of digital textuality is indeed its evanescence, a double-edged trait for the demands of preservation and historicization. In the words of one of New Zealand’s first digital artists, Douglas Bagnall, “what the digital age really means is that the digital disappears. It swallows itself, hiding within every apparently analogue thing.”⁸⁷ As the digital age swallows itself, like the ouroboros after its own tail, so too does its history. As the ancient history of that figure suggests, however, and like so much digital art itself, that act is generative. The hope is that my own running reflection on digital literary forms will contribute to a regeneration of its cultural history in Aotearoa New Zealand.

¹ For a working definition of digital fiction, see Alice Bell, Astrid Ensslin, David Ciccoricco, Jess Laccetti, Jessica Pressman, and Hans Rustad, “A Screed for Digital Fiction,” *Electronic Book Review*, 7 July 2010, <https://electronicbookreview.com/essay/a-screed-for-digital-fiction/>.

² The description appears on O’Leary’s own site, now available at <https://www.allenoleary.co.uk/hypertext/>.

³ I acknowledge the potential overlap with “digital literary studies” and “digital literary history,” which have both been used to index fields of enquiry within the digital humanities that take computational approaches to analysing literature and history, respectively. For an authoritative work that brings these strands together with reference to New Zealand, see New Zealander James Smithies’ *The Digital Humanities and the Digital Modern* (London: Palgrave Macmillan, 2017). The crucial distinction at play in my contribution is the use of “digital literary” as a descriptor for *digital-born* works with literary qualities – by which I mean they carry some form of verbal, discursive, or conceptual complexity.

⁴ Shelley Jackson, *Patchwork Girl* (Watertown, MA: Eastgate Systems, 1995).

⁵ Michael Joyce, “Forms of Future,” *Media in Transition*, 5 November 1997, https://web.mit.edu/m-i-t/articles/index_joyce.html.

⁶ Alan Liu, *Friending the Past: The Sense of History in the Digital Age* (Chicago: University of Chicago Press, 2018), 6.

⁷ Liu, *Friending the Past*, 30.

⁸ The video appears on the introductory page of: <http://www.cyberformance.org/>

⁹ For a discussion of Twitter fiction, see Bronwen Thomas, “140 Characters in Search of a Story: Twitterfiction as an Emerging Narrative Form,” in *Analysing Digital Fiction*, edited by Alice Bell, Astrid Ensslin, and Hans

Kristian Rustad (London: Routledge, 2014), 94–108. For a self-described DVD “novel” see Steve Tomasula, et al., *TOC: A New Media Novel* (Tuscaloosa: FC2, University of Alabama Press, 2009), <http://www.tocthenovel.com/index.html>. and Pry. For an example of an iPad “novella,” see Samantha Gorman and Danny Cannizzaro, *Pry* (Tender Claws, 2014), <http://prynovella.com>.

¹⁰ See Robert Coover, “The End of Books,” *New York Times Book Review*, 21 June 1992, and for a well-known reactionary critique, see Sven Birkerts, *The Gutenberg Elegies: The Fate of Reading in an Electronic Age* (New York: Fawcett Columbine, 1994).

¹¹ Jon Bridges, “Hypertext and Literature: facts and fictions” (MA dissertation, Massey University, 1995), <https://mro.massey.ac.nz/handle/10179/10698>.

¹² “Hyperfiction – the plot thickens,” *New Zealand Herald*, 18 November 2005. That same year, one decade after Bridges’ MA, saw the second dissertation on digital media and narrative fiction in New Zealand, my own “Repetition and Recombination: reading network fiction” (PhD dissertation, University of Canterbury, 2005).

¹³ Robert Sullivan, *Trout: A South Pacific Journal of the Arts*, editorial, January 1997, <http://www.trout.auckland.ac.nz/journal/1/editor.htm>.

¹⁴ See <http://www.ada.net.nz/> for the ADA site.

¹⁵ See Adam Gifford, “On-line family tree stirs strife on marae,” *New Zealand Herald*, 27 October 2000, <https://www.nzherald.co.nz/technology/on-line-family-tree-stirs-strife-on-marae/HWVD565IBKP7SQY25JAYES236M/>. The invocation of “first-ness” here is both prompted and justified by Himona’s self-description. For example, the footer of his Maaori.com website reads “The first Maori website – 1995.” Nonetheless, the distinction of “first” is of much less significance than the sustained contribution Himona has made to digital literary culture over his lifetime.

¹⁶ With regard to infrastructure and origin stories, there are many points on the timeline of NZ’s history of computing and telecommunications to choose from. For example, we could point all the way back to the arrival of NZ’s first computer, an IBM650, acquired by the government in November of 1960 for the purposes of payroll, with the University of Canterbury and Griffins biscuit factory following suit that same year. The IBM650 was rendered obsolete just two years later. Or we could point to Victoria University of Wellington creating international dial-up access to USENET, a fledgling mesh of online bulletin boards and discussion groups. But the opening of NZ’s Internet to international traffic is a fitting marker, allowing for the online publication and wide scale distribution of literary production within and beyond NZ. It was April of 1989 when the country connected directly into the nerve centre of the Internet in the United States, by way of a 9.6k bit per second analogue undersea cable running from Hawai’i to Waikato University (subsidised by NASA).

¹⁷ Sullivan, *Trout* editorial. That arrangement was ultimately short-lived, with Telecom striking a new deal with its competitors in 2000. See “Phone giants strike a deal,” *New Zealand Herald*, 30 June 2000, https://www.nzherald.co.nz/nz/phone-giants-strike-a-deal/ZRP7RZHOZU635CIRM7RSZICJIU/?c_id=1&objectid=137237.

¹⁸ Liu, *Friending the Past*, 151-52.

¹⁹ William Mitchell, *ME++ The Cyborg Self and the Networked City* (Cambridge, MA: MIT Press, 2003), 103.

²⁰ Søren Kierkegaard, *Either/Or: A Fragment of Life*. Vol. 1, translated by David S. Swenson and Lillian Marvin Swenson (London: Oxford University Press, 1946), I.20.

²¹ Liu, *Friending the Past*, 164.

²² Liu, *Friending the Past*, 151-52.

²³ Earlier still is O’Leary’s digitally networked essay “S.I.N. (Self Intra Network)” (1997), <https://allenoleary.github.io/assets/archive/1997-self-intra-network/index.htm>, which offers a meditation on embodiment that, visually and discursively, calls to mind Shelley Jackson’s award-winning hypertext fiction *Patchwork Girl* (1995).

²⁴ Allen O’Leary, interview conducted with the author, 7 November 2021.

²⁵ Allen O’Leary, “The Casino Project” (1998), <https://allenoleary.github.io/assets/archive/1998-the-casino-project/index.html>.

²⁶ “The Casino Project” received some critical attention in a 1999 review in the Australian online journal *Real Time* (32), <http://www.realtimearts.net/article/32/5014>.

²⁷ Allen O’Leary, “A Thread” (2000), <https://allenoleary.github.io/assets/archive/1999-athread/index.htm>.

²⁸ As O’Leary notes, “I have no idea what possessed anyone at such a company to hold an interactive fiction competition, it seems bizarre in retrospect, and they certainly didn’t do it twice. The prize was a new computer, so perhaps they had one spare lying around?” (Interview conducted with the author, 7 November 2021).

²⁹ *Trout* issue one is dated as “January 1997” but some of the individual works display earlier copyright dates under the author names on the site.

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- ³⁰ Judy Haswell's prize is noted in the *Trout 6* editorial (<http://www.trout.auckland.ac.nz/journal/6/murrow/editor.htm>) and on Haswell's own site: <http://aonzpsa.blogspot.com/2007/11/haswell-judith.html>.
- ³¹ Judy Haswell, "Mary Reading," *Trout 4*, 1998, <http://www.trout.auckland.ac.nz/journal/4/haswell/mary.htm>.
- ³² Interactive Fiction works through a program that parses – or "interprets" – natural language commands input by the reader. Typically, the output takes the form of second-person direct address. Though it makes sense to think of Choose Your Own Adventure gamebooks in print as the ancestor of computational Interactive Fiction, the two evolved around the same time, in the 1970s.
- ³³ Melanie Swalwell, "1980s Home Coding: The Art of Amateur Programming" in *The Aotearoa Digital Arts Reader*, edited by Stella Brennan and Su Ballard (Auckland: Clouds, 2008), 201.
- ³⁴ Email correspondence with Edwin McRae, 28 January 2022, cited with permission.
- ³⁵ *Guardian Maia* (Auckland: Metia Interactive, 2018).
- ³⁶ M. Darusha Wehm, *The Martian Job* (Choice of Games, 2019), <https://www.choiceofgames.com/martian-job/>.
- ³⁷ See <https://www.nzepc.auckland.ac.nz/>.
- ³⁸ Geoffrey Brown, "How Would it Look If?" *Tijdschrift voor Filosofie: Leuven Journal of Philosophy*, 48 no. 4 (December 1986): 583-594.
- ³⁹ Brian Flaherty, "Wittgenstein's Sun," *Trout 1*, 1997, <http://www.trout.auckland.ac.nz/journal/1/flaherty/witt.htm>.
- ⁴⁰ See Espen Aarseth's *Cybertext: Perspectives on Ergodic Literature* (Baltimore: The Johns Hopkins University Press, 1997) on the notion of aporia and epiphany in reading hypertext, and David Ciccoricco's *Reading Network Fiction* (Tuscaloosa: Alabama University Press, 2007) on the poetics of digitally networked narratives.
- ⁴¹ Of course, the Nepalese government's ban suggests another form of possession. I thank one of the anonymous reviewers of this article for the observation.
- ⁴² Flaherty, "Wittgenstein's Sun," <http://www.trout.auckland.ac.nz/journal/1/flaherty/trafal.htm>.
- ⁴³ Brian Flaherty, "This Temporary Arrangement," *Trout 1*, 1997, <http://www.trout.auckland.ac.nz/journal/1/flaherty/tmpintro.htm>.
- ⁴⁴ Thomas Mitchell, "Turning away from the sunlight," *Trout 1*, 1997, <http://www.trout.auckland.ac.nz/journal/1/mitchell/turning.htm>.
- ⁴⁵ Thomas Mitchell, "Smith and Adams" *Trout 2*, June 1997, <http://www.trout.auckland.ac.nz/journal/2/mitchell/smith.htm>.
- ⁴⁶ Robert Sullivan, "USA/CANADA by Amtrack," *Trout 1*, 1997, <http://www.trout.auckland.ac.nz/journal/1/sullivan/usa-cana.htm>.
- ⁴⁷ Gray Gibson, "New Zealand Creative Media in Seven Portraits," student assessment on Robert Sullivan completed for ENGL467: Storyworlds and Cognition at the University of Otago, 2018, <https://engl467portraits.wordpress.com/2020/09/04/robert-sullivan/>.
- ⁴⁸ Gibson, "New Zealand Creative Media in Seven Portraits."
- ⁴⁹ Roger Robinson, editor, *Heroes and Sparrows: A Celebration of Running* (Auckland: Southwestern Publishing, 1986). Robinson was himself a celebrated runner and professor of English who taught for a time at Victoria University of Wellington.
- ⁵⁰ Ross Nepia Himona, "Reflections on Running," 1996, <https://maori.com/misc/running.htm>.
- ⁵¹ See Liu, *Friending the Past*, 37-57.
- ⁵² Ross Nepia Himona, interview conducted with the author, 24 September 2021.
- ⁵³ Brian Flaherty, "White Scarves," *Turbine 6* (December 2006), <http://www.nzetc.org/iiml/turbine/Turbi06/Flaherty/Flaherty1.html>.
- ⁵⁴ See Ōrongohau Best New Zealand Poems 2006, "White Scarves" (2006), <https://www.bestnewzealandpoems.org.nz/past-issues/2006-contents/brian-flaherty/>.
- ⁵⁵ Many Adobe Flash-based works are no longer accessible after that software was officially discontinued in 2020 and its graphical interactivity handed over to HTML5. In turn, many of the signature works of digital literature that have not been able to be migrated to newer platforms were rendered inaccessible.

⁵⁶ Helen Sword, “The Stoneflower Path” (collection of digital poems, accessed 5 February 2022), <http://stoneflowerpath.com/>.

⁵⁷ See “Otago Fellows” website hosted by the University of Otago, Dunedin, New Zealand (accessed 5 February 2022), https://www.otago.ac.nz/otagofellows/previous_burns.html#craigc.

⁵⁸ See Gregory Kan’s “glass.leaves,” computational text manipulator at: <https://glassleaves.herokuapp.com/home/about> (n.d., accessed 5 February 2022).

⁵⁹ See Janet Murray’s *Hamlet on the Holodeck: The Future of Narrative in Cyberspace* (Cambridge, MA: MIT Press, 1997) for a comprehensive and what was then contemporaneous take on MUDs through a literary-critical lens.

⁶⁰ See, for example, the *World Without Oil* (2007) Alternate Reality Game (ARG). The site is now accessible only by web archive at: <https://web.archive.org/web/20080611090552/http://www.worldwithoutoil.org/> (accessed 5 February 2022).

⁶¹ Mark C. Marino and Rob Wittig, “Netprov: Elements of an Emerging Form,” *Dichtung Digital: A Journal of Art and Culture in Digital Media*, 42 (20 December 2012), <http://www.dichtung-digital.de/en/journal/archiv/?postID=577>.

⁶² Marino and Wittig, “Netprov,” (n.p.). Different netprovs also deploy either synchronous (live, real-time) or asynchronous textual communication toward their performative ends. For example, Wittig’s *Blue Company* (2002, <http://www.robwit.net/bluecompany2002/>) is among the first serial email novels. It used asynchronous text in the form of regular email updates to tell the story of a young marketing corporate named Berto who gets bad job transfer. He is sent to Italy, which initially sounds great, but realises that he has been sent to Italy in the 14th century, which is comparably more dangerous and less desirable.

⁶³ New Zealander Helen Burgess, based in the United States at North Carolina State University, served on the Electronic Literature Board of Directors until 2021. She is also known for being among the first in the US to submit a doctoral dissertation in solely digital format in 2003, and for being the first delegate of the Modern Language Association (MLA) to register a computational bot as a conference attendee in 2017. She is editor of the online digital arts and literature journal *Hyperrhiz*.

⁶⁴ The log file documentation is available online here: “PCbeth – An IBM clone of Macbeth, an irc-play by Gayle Kidder. A production of the of the Hamnet Players, World Premiere” (23 April 1994, <https://www.marmot.org.uk/hamnet/p1log.htm>). It shows that: “ValAgent (~valbots@ix.wcc.govt.nz) has joined channel #hamnet.”

⁶⁵ Avatar Body Collision, “DTN2 Synopsis,” <https://www.creative-catalyst.com/abc/dtn2/DTN2.html> (accessed 5 February 2022).

⁶⁶ Avatar Body Collision, “Dress the Nation text log extracts” (2003), <https://www.creative-catalyst.com/abc/lysis/dtn4.html>.

⁶⁷ Aarseth, *Cybertext*, 149.

⁶⁸ See Marino and Wittig’s “Netprov” for a fuller discussion of “vernacular media.”

⁶⁹ In 2007, I discussed a literary turn in contemporary videogames in “Play, Memory: *Shadow of the Colossus* and Cognitive Workouts (*Dichtung Digital: A Journal of Art and Culture in Digital Media*, 37 (2007, <http://www.dichtung-digital.de/2007/ciccoricco.htm>). In 2014 Astrid Ensslin codified a systematic approach to literary games in *Literary Gaming* (Cambridge, MA: MIT Press, 2014).

⁷⁰ Melanie Swalwell, “Hobbyist Computing in 1980s New Zealand: Games and the popular reception of microcomputers” in *Return to Tomorrow: 50 years of computing in New Zealand*, edited by Janet Toland (New Zealand Computer Society, 2010): 157-169.

⁷¹ See “Harvey Kong Tin,” TV3 video interview archived on “Play It Again... Remembering 1980s gaming” (uploaded to YouTube 22 August 2013), <http://www.ourdigitalheritage.org/archive/playitagain/creators/harvey-kong-tin/>.

⁷² For the *Hawkquest* backstory see: Andrew Bradfield and Harvey A. Kong Tin, “Documentation for *Hawkquest* for PAL Atari 800 computers” (n.d.), <https://hawkquest.tripod.com/hqdocs.txt>.

⁷³ See “Sir Roderick’s Quest,” entry on *Sega Retro* wiki, https://segaretro.org/Sir_Roderick's_Quest (accessed 5 February 2022).

⁷⁴ See Andrew Kerr’s “Play It Again” interview of Michael Boyd for the *Sega Survivors* series, archived on “Play It Again... Remembering 1980s gaming” (April 2012),

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<http://www.ourdigitalheritage.org/archive/playitagain/wp-content/uploads/MichaelBoydInterview.pdf> (accessed 5 February 2022).

⁷⁵ See the “Play It Again” interview of Nick Hook for the Sega Survivors series, archived on “Play It Again... Remembering 1980s gaming” (4 September 2014), <http://www.ourdigitalheritage.org/archive/playitagain/sega-survivors-nick-hook/> (accessed 5 February 2022).

⁷⁶ See the “Play It Again” interview of Andrew Kerr for the Sega Survivors series, archived on “Play It Again... Remembering 1980s gaming” (2 September 2014), <http://www.ourdigitalheritage.org/archive/playitagain/sega-survivors-andrew-kerr/> (accessed 5 February 2022).

⁷⁷ Cindy Poremba, “Performative Inquiry and the Sublime in Escape from Woomera,” *Games and Culture* 8 no.5 (2013): 356.

⁷⁸ “Ruddock fury over Woomera computer game,” *The Age* (30 April 2003), <https://www.theage.com.au/national/ruddock-fury-over-woomera-computer-game-20030430-gdvmhn.html>.

⁷⁹ Poremba, “Performative Inquiry,” 355.

⁸⁰ See <http://www.newsgaming.com/index.htm>. Gonzalo Frasca’s *September 12th* (2003) features a cartoonish Baghdad market over which players move an oversized crosshairs target. Their only option is to fire missiles (or not) in an attempt to hit terrorists who mingle with civilians. You inevitably fail to avoid killing civilians, and mourners inevitably morph into terrorists.

⁸¹ See the artist’s site at: <https://julianoliver.com/projects/levelhead/> and the project site at <https://julianoliver.com/levelhead/>.

⁸² Morgan Oliver, “*New Work for PCs and Unreal Gallery*,” in *The Aotearoa Digital Arts Reader*, edited by Stella Brennan and Su Ballard (Auckland: Clouds, 2008), 190.

⁸³ Oliver, “*New Work for PCs*,” 190.

⁸⁴ Oliver, “*New Work for PCs*,” 190.

⁸⁵ For a detailed account of how newer media perpetually recontextualise older media, see Jay David Bolter and Richard Grusin, *Remediation: Understanding New Media* (Cambridge, MA: MIT Press, 2000).

⁸⁶ Paul Virilio, “Speed and Information: Cyberspace Alarm!” *CTheory* (27 August 1995), <https://journals.uvic.ca/index.php/ctheory/article/view/14657>.

⁸⁷ Douglas Bagnall, “What is Digital? Concepts and a Chronology” in *The Aotearoa Digital Arts Reader*, edited by Stella Brennan and Su Ballard (Auckland: Clouds, 2008), 201.