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Narrative traditions of the digital st/age: learning from Indigenous cultures

Elizabeth Swift[#]

University of Gloucestershire, The Park, Cheltenham GL50 2RH, United Kingdom

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ABSTRACT

All the world's a stage, said Jaques in Shakespeare's pastoral comedy, *As You Like It*, but the history of world literature tells a different story. Vast and ancient civilisations have been systematically excluded from records of stories told within our dominant literary tradition, which has focussed, rather, on narratives serving to define a particular view of aesthetic production and reception. 'World literature' excludes narratives which do not follow systematic rules – rules so embedded in tradition that we no longer notice them. The digital age, however, has thrown up new challenges for literature, concerning the relationship between author and reader. Increasingly, established modes of literature and drama are not fit for purpose in a world where immediacy and interactivity are valued above hierarchical storytelling. This paper argues that, in learning to understand how narratives might operate in a digital age, there is much to be learned from storytelling cultures that pre-date 'world literature'. It explores ancient narrative traditions from Indigenous Australia, North America and France, and explains how they can model certain kinds of immersive and interactive practices that are increasingly familiar in our digital age. It interrogates current storytelling practices that incorporate virtual reality and digital interactivity, and argues that the novel modes of engagement they provoke demonstrate the evolving relationship between artistic production and reception. The research draws on studies undertaken by academics from Indigenous cultures as well as incorporating new work from digital researchers and cognitive scientists.

1. Introduction – a world of stories full of holes

Multiple outbreaks of diseases, as diverse as measles, influenza and bubonic plague, led to the devastation of Indigenous American communities in the years immediately after the arrival of the colonising Europeans to the eastern coastal regions of the continent. These early invaders brought more than Christianity and gunpowder to the "new world"; they were responsible for importing illnesses that the relatively isolated native people had no immunity to fight. Consequently, whole populations were wiped out. The historical records made by the Pilgrim Fathers chronicle this devastation. From these and other reports we know that of the 5000 native Americans living in the Massachusetts region alone, some 90% were killed by European diseases (Steckel and Rose 2005, 49). However, there is another record of this tragedy that cannot be reduced so simply to a statistic in a Western historical account, and that hints of different approaches to recording the stories of communities.

The Pokanoket people, one of the North American tribes affected, followed a tradition of recording and passing on their stories through a direct interaction with their landscape. Whenever a notable event happened within a community - a marriage, a dispute, a celebration, a death - a hole was dug in the ground at the precise spot where the event occurred. Anyone who discovered, or stumbled upon, one of these "memory holes" and asked about it would be told its particular story. In this way the Pokanokets kept the stories of their lives alive and passed them onto people who travelled across their land. Soon after their arrival in the Pokanoket country, the Europeans noticed how regions that had been farmed were abandoned when the native communities fell victim to diseases. Vast fertile tracts were transformed into a devasted landscape pock-marked with multiple memory holes, each telling a story of a particular tragic and untimely death (Philbrick 2006, 105).

Edward Winslow, one of the early Pilgrims, describes the desolation in his 1624 book, *Good Newes from New England, or a True Relation of Things very Remarkable at the Plantation of Plimoth[sic] in New England*: "Thousands of men have lived there which died in a great plague not long since, and pity it was and is to see, so many goodly fields and so well seated without men to dress and manure the same" (Winslow 2010 [1624],106). He also reflected on the Pokanoket's tradition of taking responsibility for preserving the memory holes so that the stories connected to each would not die out.

> And lest such holes should be filled, or grown over by any accident, as men pass by they will oft renew the same: by which means many things of great antiquity are fresh in memory. So that as a man travelleth, if he can understand his guide, his journey will be the less tedious, by reason of the many historical discourses that will be related unto him.
>
> (Winslow 2010 [1624], 47 – 48)

E-mail address: eswift@glos.ac.uk
[#] Coach House, West Drive, Cheltenham GL504LB, UK.

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As the Pilgrims journeyed through the Pokanoket country they discovered, as historian Fred Prouty describes, that they were: "traversing a mythic land, where a sense of community extended far into the distant past" (Prouty 2014). The Pokanokets understood the importance of the action of making and maintaining their memory holes to preserving the cultural cohesiveness of their people. And when the community was devasted by disease, the practice continued. The memory holes and the oral narratives they safeguarded helped to maintain the community's sense of itself, even when its future was hanging by a thread. The Pokanokets realised the concomitant significance of physical agency and meaningful location to their stories; it is this significance in particular that has been re-emerging in recent times as a new culture of interactive and immersive storytelling develops. Contemporary narrative structures that are embedded in site, landscape or digital domain, and which demand particular inter/actions of the reader, require a re-thinking of the operation of reception. In this new area of enquiry, the significance of ancient narrative practices, like that of the Pokanokets, is that they can demonstrate important ways of reasoning about action and agency in emerging stories.

Today, the term "immersive" has become a ubiquitous label for cultural events that share, with the tradition of memory holes, a dependence on the actions of interactors in response to a specific environment as an aesthetic strategy. Examples of contemporary events that adopt the tag of immersivity are vast and varied. Live action role play; virtual reality experiences; pervasive video games; escape-rooms; murder mystery nights; interactive museum displays, and no end of tourism and marketing novelties are among the diverse experience-based activities that serve to evidence the immersive turn in our culture since the millennium. Furthermore, these diverse events demonstrate that the operation of narrative itself is going through a period of transformation; increasingly the balance of creative power between the producer and consumer is shifting, as the role of site and interaction becomes more significant.

This article proposes that in exploring the evolution of contemporary narrative structure we can benefit from considering ancient storytelling practices. Traditions from Indigenous communities across the world, including some which have only recently been discovered, share with 21st century immersive art certain aesthetic structures that evade the dominant Western tradition of a hierarchical and binary relationship between the artist/ producer and the reader/consumer. They also prioritise environment and interactivity in a manner similar to contemporary participatory narrative work.

The work of virtual reality storytellers Tender Claws, and of digital fiction writers Deena Larson and Geniwate[sic] will be considered alongside various ancient narrative practices including cave art, songlines and wampum beads. Far from immersivity being a new idea, this article will show how contemporary digital performance work and interactive stories hearken back to the earliest cultural practices. Significantly both the new and ancient forms treat the process of user reception in a radically different manner to traditional Western modes, which generally conceptualise the reader/audience as a sedentary figure, essential to the work, but distanced from it, "as [a] more or less passive onlooker" (Schankweiller 2019, 74).

The aesthetics of reception being explored in new digital narratives makes creative demands of its audience, which are active, challenging and often deeply personal. These demands resonate with cultural practices which predate conventional record keeping, and this article argues that the similarities between the practices which are separated by centuries are significant and pave a way for a greater understanding of emerging narrative trends, as is illustrated in the work of Tender Claws.

2. The Tender Claws *Tempest*: searching for story in a virtual world

> *Tempest* is a one-of-a-kind immersive experience! Travel through time and space to enact an exciting story of love & revenge - with a little magic, of course!
>
> Tender 2022

The experience of narrative in virtual reality (VR) calls for very different reception skills than those required of either a book reader or a theatre goer. Firstly, there is the VR equipment to deal with, which is more cumbersome than a book, then there is the navigation of the virtual space, calling for a kind of active involvement that is rare in theatre. But the payback for engaging with VR is an access-all-areas pass to a magical environment which can be the ideal setting for stories of incredible happenings. Using VR is a personal process. Each audience member attending this performance was able to act independently, navigate the space with a degree of freedom and agency. Consequently, my record of the event is delivered from a personal and phenomenological perspective. Like the traveller encountering (stumbling upon) memory holes in a landscape, my experience was born of my encounter with the environment.

The US company Tender Claws is at the forefront of virtual reality storytelling. Its 2020–22 production, *Tempest*, directed by Samantha Gorman, is made to be experienced within a virtual world called *The Under*. Once logged into the site, participants are invited, as masked avatars, to visit *"Prospero's Island",* where a solo performer-avatar greets them and relates the story of William Shakespeare's *Tempest*.

Despite the lush vastness of the virtual world created for this production, this is essentially an intimate storytelling experience because there is just one actor and, when I partook, six participants. *There were plentiful opportunities to explore and interact. We could move around and, using our hand controllers, grab objects and interact with them. The image below illustrates a moment when we were given torches to illuminate the action.

Image from Tender Claws' virtual reality *Tempest* 9/7/2020 (director Samantha Gorman), showing participant avatar (with torch) and actor avatar. Photo: Tender Claws.

Sometimes we sat around a campfire to hear the tale of love and revenge, other times we were asked to help the story along, so we took part in a banquet and explored the wreck of Alonso's ship. However, it was the pre-show activity that particularly sticks in my memory. Having donned the VR headset, I found myself in a bleak muddy landscape, completely disorientated until, on turning around, I saw signs to a theatre box office. But in order to get there, I had to drag my avatar-self through the mud, by literally using the VR touch controllers as if they were climbing axes to do this - a demanding and physical task which made arriving at the theatre foyer an achievement in itself.

Image from Tender Claws' virtual reality *Tempest* 9/7/2020 (director Samantha Gorman), showing the virtual box office. Photo: Tender Claws

This cleverly designed prelude mirrors the fiction in which the shipwrecked characters similarly experience a physical struggle on arriving at the island. While Shakespeare conjured his *Tempest* in words for the audience to listen to and imagine, this virtual tempest is conjured in code, and it is our interaction with this encoded environment that activates the story. "The line between real and virtual, and truth and fiction, blur as audience are cast as Prospero's spirits to realize an interactive, virtual version of the story", announces the show's publicity (Tender Claws 2022). In this virtual production, we are "spirit explorers", unfamiliar with the terrain, bumping and stumbling into story. And when story emerges, we are, through our actions, partly responsible for the way in which it is shared. Consequently, each iteration of Tender Claws' *Tempest* is unique, as manifested through the efforts and agency of the players and artist present.

Western literary and dramatic culture generally positions the readers/ listeners/ audiences as physically passive and non-interactive; their role is to *imaginatively* engage with the narrative produced by the author figure. While there have been notable exceptions to this model, as I will discuss, it does represent the dominant tradition: novels, plays and cinema use this aesthetic structure of exchange which is ubiquitous to the point of invisibility, and which engenders a neutral dynamic of hierarchical production and reception (Swift 2014, 25). The author is understood as the creative force, the role of the receiver is to be still, sedentary and receptive and not to play any ostensible part in the creative operations.

This is the background against which new immersive and interactive work, including intermedial performance like Tender Claws' *Tempest,* is positioned. Contemporary scholarship examining the changing role of the audience or reader of such work faces a particular difficulty because, as Rachel Fensham has discussed, our traditional ways of considering the role are so entrenched that we do not even have the language to accommodate new ideas or reason about the "hidden messiness" of spectatorial practice (Fensham 2009, 13). The word "audience" is an example of this as it is a collective noun without a singular version making the discussion of an individual's personal experience of theatre linguistically cumbersome, notwithstanding the fact that the word's etymology suggests it is concerned solely with the hearing sense. The alternative term, "spectator", prioritises, instead, the visual sense and the term reader suggests a passive analytical function. None of these terms acknowledges the significance of other senses involving movement or feeling to artistic engagement: "language has done a disservice to the collective sensibility of the viewing experience for theatre audiences" (*ibid*).

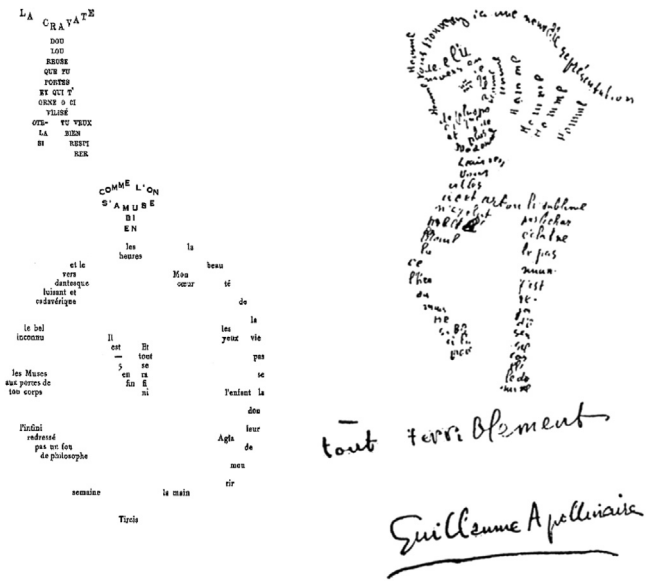
Only when the scholarship concerning virtual immersive experiences adopts the vernacular of games by referring to "participants" or "users" do we start to infer a notion of agency. However, these terms are also inadequate because they do not account for the dramatic quality of the experience. Words fail us in discussing immersive performance. The experience of *Tempest* is indefinable according to regular genre categories because it contains elements of storytelling, game, theatre and animation. However, in understanding the particular praxis employed, it is ludic or game theory that provides the most useful way of considering the novel role of the reader/participant.

3. Non-trivial pursuits in immersive work – the ergodic artwork

Games theorist Espen Aarseth introduced the concept of the ergodic artwork in his analysis of the evolution of the computer game. Ergodic, a term derived from the Greek words for "work" *(ergon)* and "path" *(hodos),* was appropriated by Aarseth in identifying the "non-trivial effort" required to allow the reader/ participant to engage with an artwork by following certain rules and behaviours and through active collaboration (Aarseth 1997, 1–2). Its application in both game theory and more recently performance theory (Swift 2016, 167–168) illustrates the growing significance of meaningful and material interaction as an aesthetic strategy.

Aarseth identifies that contemporary reading increasingly requires more than "trivial" engagement, which he exemplifies by the act of turning pages. Engagement with a digital text today needs decision making and exertion by the reader, not only in order to make a text actually function, but also for the reader to benefit from a new kind of tangible payoff. Payoffs in return for ergodic engagement are various - from choosing your own route through a virtual landscape or through a digital fiction, via its hyperlinks, as in the case of Michael Joyce's pioneering interactive digital novel, *Afternoon – a story* (1990), or to deciding the fate of a character in a computer game. "The ergodic work of art is one that in a material sense includes the rules for its own use, a work that has certain requirements built in that automatically distinguishes between successful and unsuccessful users" (Aarseth 1997, 179).

Aarseth was an early adopter of the idea that new theories and approaches were needed in order to reason about new activities of engagement provoked by ergodic artworks. He also recognised that ergodic practices existed offline, and also prior to, the digital age. These were those provoked by various kinds of artworks which demanded "non-trivial" engagement as a catalyst. He identified the ancient Chinese book of wisdom, the *I Ching* (1122–770 BCE), which contains thousands of possible texts which emerge according to how the "reader" manipulates wooden sticks, as a complex example. More recent and simpler examples are Guillaume Apollinaire's *Calligrammes* (Apollinaire 1918), pictorial poems to be read in different physical orientations, and which prompt the reader to physically move themselves and the paper in order to decipher the poem.



Calligrammes - poèmes de la paix et da la guerre, 1913–1916, by Guillaume Apollinaire

The notion of the ergodic provides a way to reason about a quality of engagement that is active and practical, inasmuch as it converts "trivial" reception into a process of individual creation, and involves the participant in making significant decisions about their mode of engagement in response to aesthetic challenges or questions posed by the work of art. It is exactly this kind of response that has been, until relatively recently, discouraged by the dominant Western dramatic tradition. As Hans-Thies Lehmann, author of the ground-breaking *Postdramatic Theatre*, has suggested, since the Enlightenment and particularly with the development of Naturalism, the idea of the audience being a group of individuals with the capacity for active creative involvement has been stultified by the structure of theatre in which: "the subjectivity of per-

sons is transcended by the form" (Lehmann 2006, 94). The spectator characterised in Jacques Ranciere's *the Emancipated Spectator* who: "remains immobile in her seat, passive […] separated from both the capacity to know and the power to act" (Ranciere 2011, 2), is generally in the dark, silent and still, as the art flows at them through the fourth wall for their non-ergodic consumption. However, evidence that ancient artworks operated in a different way to this and were predominantly ergodic is emerging from contemporary archaeological discoveries.

4. Cave art – an introduction to palaeolithic virtual reality

Lascaux cave in Southwest France is made up of a network of huge underground connecting chambers. When it was discovered in 1940 the internal walls and ceilings were found to be completely covered in huge paintings of animals dating back 17,000 years to the Palaeolithic period. To the modern eye these images, seen by electric light and in photographs, make the cave seem like a massive gallery and its discovery provided evidence that our ancestors could create representational pictures to be appreciated by viewers in the same way as we appreciate paintings in galleries today. Yet, as historian and blogger Sean Zabashidescribes, this interpretation fails to explain why many of the paintings, for example the bulls in the *Great Bull Chamber*, pictured below, include the same animal repeated again and again at different sizes and scales, or why the images flow into one another preventing them operating as discrete "pictures" (Zabashi 2022).

Lascaux cave paintings. Photo: Traumrune / *Wikimedia Commons*

Lascaux cave painting. Photos: Public domain, *Wikimedia Commons*

Archaeologist Edward Wachtel has proposed that these images were designed specifically to be experienced by people moving around the spaces with hand-held lamps made of shells and animal fat (Wachtel 1993, 135–137); the flickering of multiple flames having the effect of animating the overlapping creatures on the walls, turning them into a vast 360-degree cinematic artwork that was activated by the ergodic action of onlookers and their firelight. VR specialist Catherine Allen believes that the cave would have been used for special occasions and, when accompanied by music and performance, could have produced the ultimate proto-virtual experience (Allen 2021). There is a growing body of evidence that Palaeolithic art was designed for an immersed and interactive audience and was technologically sophisticated. Archaeological remains in cave sites have revealed distinctive types of torches capable of producing different intensities and colours of flame. As Jennifer Ouellette explains (Ouellette 2021), these indicate that a range of lighting effects were possible in the caves and that Palaeolithic artists understood how human vision and movement influenced the affective impact of art.

Ancient cave environments, like contemporary immersive stories and memory holes, required the spectator/participant to engage in a meaningful ergodic manner, and the quality of their individual action influenced the experience generated.

5. "Are you sitting comfortably? then I'll begin" [1] - the moving story of disbelief suspension

Physical movement is a common denominator of much ancient and new immersive interactive work. Conversely, movement is the quality missing from most traditional Western reading and spectatorial practices, in which the sedentary nature of the reader or audience is seen to be intrinsic to the process. It is through this very stillness that, according to popular lore, we are able to be imaginatively transported to the consensual fantasy that is the novel, play or film. The classic *bon mot* for explaining the power of narrative to transport its non-interacting user is borrowed from the Romantic poet, Samuel Taylor Coleridge, who, in a discussion with William Wordsworth about poetry, coined the phrase "the willing suspension of disbelief" (Coleridge 1985) to characterise the process by which a reader imaginatively enters a fictional world and experiences real emotions and feelings provoked by that world, while completely understanding its fictional status.

Neuro-psychologist, Norman Holland, used the notion of suspension of disbelief as a stimulus for a body of work concerning the experiences of readers and spectators. His research reveals significant differences between the cognitive activity of the sedentary audience and that of the physically interactive audience. Holland identifies that in the act of suspending our disbelief:

1. we no longer perceive our bodies;
2. we no longer perceive our environment;
3. we no longer judge probability or reality-test;
4. we respond emotionally to the fiction as though it were real.

(Holland 2003)

When a spectator or reader suspends their disbelief, the prefrontal cortices of their brain produce emotions, as if the narrative they are engaging with is real life. He explains:

> as a result of our stillness there is a disconnect between the areas of the brain responsible for producing emotion and those responsible for action […] We still feel the emotions, but they no longer go to the pre-frontal cortex for reality testing and planning.
>
> (*ibid*)

Consequently, by switching off part of our brain we experience "losing ourselves" in a fictional world - the hallmark of disbelief suspension - but he continues, "the minute we move, we break the spell" (*ibid*). Holland's study shows how different parts of the brain that relate to our emotional experience of story, respond differently according to whether

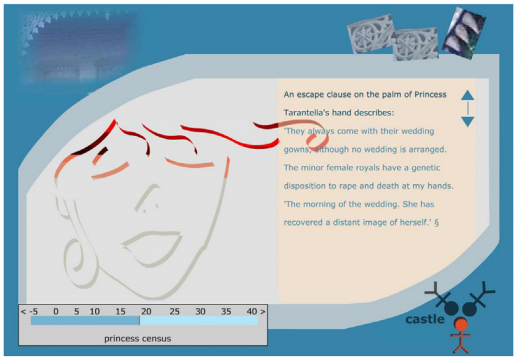
[1] The phrase "Are sitting comfortably? then I'll begin" was used by Julia Lang to Introduce the BBC children's radio series, Listen with Mother (1950 – 1982). The phrase became so well known that it was included in the Oxford Dictionary of Quotations.

or not we are sedentary. Any immersive artwork, ancient or contemporary, that requires us both to move at times and to be still at times, is clearly able to broaden out the scope of cognitive experience provoked.

The idea that reading and spectating are not the straightforward passive experiences that the dominant tradition of Western literature and drama suggest was explored and theorised extensively by mid-20 century post-structuralist philosophers and artists, including Roland Barthes, Jacques Derrida, Gilles Deleuze, Felix Guattari and Michel Foucalt *et al* (Landow 2006). The emergence of digital technology and the internet, which prompted a massive and material shift in the practices of text production and reading, spurred further critical reflection about the respective processes of authoring and consuming digital narratives. George P. Landow, a leading theorist of the effects of digital technology on language, argued that the invention of the personal computer and of hypertext mark-up language (html) provided a means of actualising the ideas of post-structuralist theorists . He claimed that hypertext extended the reader's creative engagement with text and gave them an authorial function through the enhanced access to the textual operations available via the hyperlink. In allowing the reader to manipulate the text, hypertext radically overturns traditions concerning reading and writing.

> All hypertext systems permit the individual reader to choose his or her own center of investigation and experience. What this principle means in practice is that the reader is not locked into any kind of particular organization or hierarchy.
>
> (Landow 2006, 58)

The development of hypertext brought about the emergence of narrative work designed to be read on computers. Hypertext fiction, also known as digital fiction, was lauded as a revolution in reading and writing when it emerged in the 1990s. The publication of hypertext fictions like *afternoon, a story,* by Michael Joyce (Joyce 1990), and Stuart Moulthrop's *Victory Garden,* allowed readers to choose their own routes through the works, using interconnecting links and a plurality of narrative options. This agency, described by Janet Murray as the "satisfying power to take meaningful action and see the results of our decisions and choices" (1998:126) endows the reader of hypertext fiction, with creative responsibilities that exceed those of the text reader. Such responsibilities can be playful, dramatic and sometime problematic, as demonstrated in the landmark work, *The Princess Murderer*, a graphic update of the legend of Bluebeard, created by Deena Larsen and Geniwate[sic].



Screenshot from *The Princess Murderer* by Deena Larsen and Geniwate (2016)

On engaging with *The Princess Murderer,* the reader is told: "with each click a princess dies" (Larsen 2003). With these words this hypertext fiction, which also contains elements of game, foregrounds the capacity of the encoded digital environment to compel the reader to influence the narrative through their act of reading. The interface instruction is very clear: if the reader wants to find out what happens next in this blood-thirsty story they can click on any of the several hyperlinked icons; however, this action will kill one of the many princesses hiding in Bluebeard's castle and the murder will be recorded on a tabulated "princess census" on the page. In its satirical commentary on the performativity of hypertext, *The Princess Murderer* positions the reader as a character, alternately as murderer, voyeur, and police suspect. It exposes interactive reading as a process that actively produces narrative events and endows the reader with a performative function that becomes an obligatory aspect of their practice of engagement.

The Princess Murderer demonstrates how hypertext fiction can empower its readers by giving them an authorial role. Silvio Gaggi elaborates this process:

> the distinction between reader and writer is attenuated, perhaps even dissolved entirely. The text is no longer a one-way communication system in which information and ideas proceed only from author to reader, but a communication system in which all participants can contribute and affect the content and direction of the conversation.
>
> (Gaggi 1998, 103)

As Gaggi indicates, hypertextual form brings about a seismic shifting narrative structure, leaning, as it does, into an aesthetic dynamic in which author and reader have to enter into a mode of formal collaboration in order for the narrative to operate.

This new kind of relationship does not sit comfortably within the economy of artistic exchange honed in Western culture because it questions both the normative parameters of narrative and also the traditions that determine its reception. Stories lodged in digital space are able to play out issues that relate to new conventions of participation and interactivity because they make creative use of the specialised features of digital coding, such as hyperlinks connecting different narrative paths. This attribute would seem to connect the form exclusively to the digital age. However, Indigenous histories show that similar interactive models, that use artifacts for the storage and retrieval of interconnected narratives, have been culturally significant for centuries.

6. Hypertext, beads, and interactive narratives

The wampum narrative tradition from the coastal regions of North-West America is claimed as a proto-hypertext by anthropologist, Angela Hass. Wampum are shell beads which are collected and woven together to form belts and other artifacts for use in ceremonies. Different patterns of weaving convey different stories which emerge according to how they are "read" a process that involves the tactile handling of the wampum objects. Hass believes that the texture of the wampum is structured, and operates, in a manner akin to digital coding based, as it is, on the mathematical arrangements of white- and purple-coloured beads. "The concept of hypertext and the rhetorical work it does are not new – nor is it unique to Western culture" (Haas 2007, 84). Wampum artifacts communicate non-linear narratives through layers of stories organised through strands and nodes and, as Hass describes, the reading of wampum involves skilled selection and route finding in a similar manner to the reader encountering the hypertextual structure of the internet. Importantly this is a tradition that requires interactivity with a particular artifact by the reader, and this interaction operates performatively to inscribe intention and promise.

Section of a wampum belt showing the white and purple beads arranged in strands

When someone is given a wampum artifact, they are given custody of a story and responsibility for telling it through their actions. Wampum have been used to record and maintain centuries of alliances between tribes. The layers of stories are woven together and can be pulled apart by members of that community for a live reading or presentation. Stories are kept alive; and because the wampum functions as a "living rhetoric" (80), the telling of a wampum communicates and reinvigorates a mutual relationship between the parties involved. "… thus, wampum embodies memory, as it extends human memories of inherited knowledge via inter-connected non-linear designs with associative message storage and retrieval methods" (81).

Wampum illustrates how a non-digital forms can offer the same characteristics of interactivity, participation and collaboration that have been claimed, by Landow and others (*ibid*), as novel characteristics of digital narratives. The Indigenous tradition not only concerns the carefully coded narratives locked into the intricate patterns of the beads, but also the sophisticated modes of participation and collaboration necessary for the narratives to emerge which, as Hass has argued, have an impact on how the community exists.

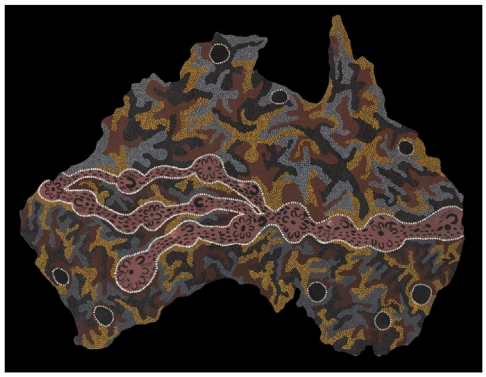
Recently, performance scholars have suggested that the participatory element of immersive performances can be allied with the experience economy of late capitalism. This is because when an audience member interacts with a performance, they are enacting a neoliberal impulse to operate as an economically independent individual controlling the production and consumption, and tailoring the experience to accord with their individual desire. Janelle Reinelt comments that: "[immersive] experiences can cultivate self-referential narcissism or a hyper individualism that is consistent with anomie and distraction" (Reinelt 2019, 118), while Adam Alston considers the intensification of audience productivity to be a product of neoliberalism which satisfies the empowered spectators' demands: "to make more, do more, feel more, and to feel more intensely (Alston 2016, 4).

While some aspects of the user participation provoked in ergodic work may resonate with neoliberalism, this conception fails to acknowledge the fact that the nature of ergodic immersive work also lends itself to interactivity, collaboration and engagement in ways which are subtle and progressive. Wampum reading, like other indigenous narrative forms, illustrate how creative participation may be complex and detailed and have far reaching social consequences. The practical implications of this for literature and storytelling in the digital age are that it provides a way of recognising how interactivity has its own lineage and can be realised and analysed as formidable force in artistic production/ reception cycle.

Ancient and contemporary immersive work have in common a focus on the activity of the user/audience which is fundamental to the emergence of the story. Creative interaction by an immersed participant, as Gaggi observes (*ibid*), problematises the distinction between author and reader. The result of this dissolution of the familiar separate roles is that narrative becomes something that is always in process and always contingent on the actions of those partaking. It is this kind of process that is seen in another ancient form of performative narrative – the songlines tradition of Australia.

7. Story custodians and the songline traditions of Australia

Across the Australian continent, the ancient stories of the Indigenous culture are rooted in the landscape. They tell of totemic animals, plants, stars and planets, and also function as vital mapping devices, recording locations of waterholes, mountains, and hunting grounds. The entire landmass contains a network of stories that are meshed together like a giant fishing net laid out over the land. Known as songlines or dreaming tracks, stories are shared by clans living across vast areas with individual clan members having custody of the part of it that relates to their home. The complete songline can only be realised through each "custodian" relating their portion of the narrative by walking across the land that it belongs to, singing its story to life through their voice and movement. As Marcia Langton, anthropologist, explains: "the person relating the story will then meet up with the next clan who will know the next part, and so the journey of the story will cross the continent" (2008).



***Seven Sisters Songline* 1994 by Josephine Mick, Ninuku Arts. © the artist / Licensed by Viscopy. Photo: National Museum of Australia (2017)**

Fundamentally the operation of songlines subverts the notion of a binary opposition between a producer (artist/author) and a receiver (audience /reader). Instead of these roles being different and in opposition, they are combined in the role of the person who has custody of the story as both producer and receiver, and responsibility for re-inscribing it in the land through their actions. While many stories have been lost, as a result of the destructive effects of colonialization, there are, according to Langton (2008), enough songlines still in operation, to evidence this structure of co-dependent performative narratives whose existence functions as a multilinear model of connectedness, that melds time, space, action and story. Furthermore, many have been pictorially illustrated by Indigenous artists and story custodians, as the image above shows.

Songlines, of course, have little in common with dominant narrative traditions, in which the story is presented for consumption by the reader. Nor do they represent anything that could be housed in a theatre building and performed for a sedentary audience. However, they are able to demonstrate how performative stories can operate, in a manner removed from the dominant Western conventions of hierarchical production and reception, and their operation is of untapped relevance to contemporary concerns about the aesthetic dynamics of immersive practices. Songlines are inherently interactive in the same way as today's immersive artworks. Both forms involve environments that have stories built into them and depend on a user's ergodic interaction with the space to produce those stories.

It is important to recognise and consider the historical problems of engaging with First Nations' cultural practices from a Western standpoint. These difficulties, as Richard Martin (Martin 2013) has explained, have been present throughout Australian colonial history up to the present day. Attempts to comprehend and analyse the nature of songlines have been often characterised by a lack of understanding of the sacred and singular nature of cultural practices, and by unsuccessful efforts to translate the songs into other forms, particularly written forms, in order to enable them to engage a wider audience. However, as John Bradley states, it is the songlines' very resistance to being resolved into Western forms of aesthetic production and reception that denotes their singularity, and I would add, their relevance to a debate concerning the contemporary challenges to the traditions of artistic exchange that are posed by new forms of immersive practice. He comments on the incommensurable nature of Western cultural mores and aboriginal traditions of storytelling which have "nothing to do with Western systems of categories; rather it is about the relatedness of humans, non-humans and objects and the potential power to move between them" (Bradley 2010,134).

While Bradley *et al* reject any Western appropriation of Aboriginal forms, positing the radical alterity of Indigenous understandings to Western ways of thinking, other anthropologists, scholars and artists, particularly those with an interest in emerging aesthetic forms, identify a resonance between the networked structure and implicit interactivity of songlines and the operational assemblages of contemporary digital and immersive technology. This synergy between Indigenous story systems and contemporary immersive digital modes was recognised as early as the 1980s by Barbara Glowczewski. She noticed that advances in technology, facilitated by the development of hypertext mark-up language(html), were altering, and extending narrative practices, and new interactive and reticular models of storytelling bore remarkable similarities to ancient Indigenous structures. Both digital and Indigenous systems:

> stress the fact that there is no centrality to the whole, but a multipolar view from each recomposed network within each singularity — for example, a person, a place, a Dreaming — allowing the emergence of meanings and performances, encounters, creations as new original autonomous flows.
>
> (Glowczewski 1987, 28)

Similarly James Barrett (2009) observed that digital media and Indigenous narratives: "each had shares in basic concepts of co-creativity, mediation and spatiality" (Barrett 2009, 4) and argued that narrative structures, that are characterised by types of immersion and interactivity, resonate more closely with structures that exist in Indigenous storytelling traditions like those of Australia and "do not function according to the uses developed under material regimes of Western story telling particularly since the Enlightenment" (*ibid*). Indigenous art curator, Candice Hopkins, also recognises the wider significance of a narrative being formed as a mutating network, describing Indigenous stories as continually: "changing, individualized and communal, original and replicated, authored and authorless" (Hopkins 2006, 341).

8. Conclusion - never ending stories

All the works and practices discussed here share a requirement for the active ergodic input of the audience/reader, who consequently ceases to be a consumer and becomes a custodian, or co-creator, of an artistic experience. Commentators on the rapid development of immersive and interactive culture draw attention to its capacity to unsettle traditional hierarchical relationships which have been nurtured through the languages and practices of Western art. Werry and Schmidt outline in their essay on the growing import of immersive performance.

> the significance of immersion as a mode of spectatorship lies not in its formal novelty, uniqueness, or political efficacy; rather, its recent and growing currency provides new ways of thinking about many of the fundamental questions that concern theatre scholars interested in the experiential politics of performance: What is the distinction between actor and audience member, and what are the political stakes of drawing that line?
>
> (Werry and Schmidt 2014, 469)

New artistic practices are revealing the growing importance of the audience/ readers' phenomenological role in the creative process, yet the understanding of the implications of this development is still in its infancy. As discussed, (Fensham *et al*) we do not even have the language for the concepts we need to engage with as we consider how interactivity and immersivness changes our conception of world literature.

In searching for models to help understand this paradigm shift, ancient cultures, that have so often been ignored or misrepresented, can provide insights to the new kinds of aesthetic generation. In exploring this area there is a need to honour and respect cultural practices and recognise how roles and functions of the people and environments in these practices do not accord with the structure of dominant Western cultural tradition. However, the benefit of such models now is that, like immersive work, they serve to dislocate the categories of production and reception through practices that replace the customary aesthetic binary with a myriad of creative functions which refuses to be categorised.

The practical implications of the link between ancient and contemporary narrative structures and the models they provide are therefore that they start to indicate how new modes of story can operate outside normative literary structures.

Immersive and interactive narratives are not so much forging new pathways in world literature but re-discovering ancient roots. Recent findings by archaeologists and anthropologists are enabling literary and theatre scholars to discover how ancient traditions can lead to a new awareness of what is possible for the future of storytelling.

End

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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