The Mechanics of Survivance in Indigenously-Determined Video-Games: *Invaders* and *Never Alone*

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Survivance as a legal concept names the right to inheritance and more specifically the condition of being qualified to inherit a legacy. In his essay "Aesthetics of Survivance" (2008), Vizenor describes survivance as "the heritable right of succession or reversion of an estate" (1). This aspect of survivance is overlooked by those scholars of Vizenor's work who focus rather on the conjunction of the terms "survival" and "resistance," terms that are important most fundamentally as they intersect with the capacity to transmit and to accept the inheritance of the past that is itself the intersection of survival and resistance.[1] That is to say, acts of resistance and survival form the axiology (or ethical action) of survivance; the preservation of tribal languages, for example, or the transmission of traditional stories, are acts that ensure the continual availability of the tribal values of knowing and being in the world that are encoded in those words and stories. These Indigenous lifeways constitute the inheritance that motivates survivance. Thus, survivance is not a static object or method but a dynamic, active condition of historical and cultural survival and also of political resistance, practiced in the continual readiness of Indigenous communities to accept and continue the inheritance passed on by elders and ancestors. In this sense, claims made by recent Indigenous video-game developers to speak to youth through digital media by creating games that transmit tribal legacies of language, stories, ontologies, and ways of knowing and being in the world, speak to the practice of survivance. Indeed, the particular capacity of video games to engage active participation in the making of stories offers a powerful means to encourage and sustain survivance. In what game designer Elizabeth LaPensée (Anishinaabe/Métis) refers to as "Indigenously-determined" video-games, then, survivance is both a substantive dimension of the experience of playing a game and also the underlying structural principle that governs the game mechanics that are determined by Indigenous epistemologies.[2]

This essay focuses on the analysis of game mechanics: the rules of the game that prescribe the opportunities made possible for, and the limitations imposed upon, player interactivity. The term "game mechanics" refers to all the rules or conditions that govern

interaction with the game. They determine both the means by which the player can act within the game world (for instance, pressing a designated button on a video-game controller to move from one kind of reality to another, or throwing dice in an analogue game) and also the constraints imposed on potential actions by the player (the legitimate movement of various chess pieces around the board, for example). Ian Schreiber suggests additional questions that can be posed concerning the functions of game mechanics: "What actions can players take, and what effects do those actions have on the game state? When does the game end, and how is a resolution determined?" (n.pag.). These aspects of game mechanics are closely related to the structure of the story or game narrative: most clearly the conditions for an ending but also the intermediate actions that a player can (or cannot) take to advance the story through a succession of episodes towards that final resolution. Thus, game mechanics not only control the "rules of the game" but more fundamentally the conditions for a player's interactivity with the game. This emphasis on interactivity and action characterizes the definition of games and game mechanics offered by Robin Hunicke, Marc LeBlanc, and Robert Zubek in their influential 2001 essay, "MDA: A Formal Approach to Game Design and Game Research" where they write: "Fundamental to this framework is the idea that games are more like artifacts than media. By this we mean that the content of a game is its behavior not the media that streams out of it towards the player. Thinking about games as designed artifacts helps frame them as systems that build behavior via interaction" (n.pag.). The "behaviour" of a game is conditioned by its mechanics, which they define as "the particular components of the game, at the level of data representation and algorithms (inc. actions, behaviors, rules/control mechanisms)." Game mechanics work with "dynamics"—"the run-time behavior of the mechanics acting on player inputs and each others' outputs over time"—and "aesthetics"—"the desirable emotional responses evoked in the player, when she interacts with the game system" (n.pag.)—to produce the total gaming experience. Both the player's experience of interaction with the game environment and the emotional impacts of the game arise from the crafting of the mechanics that control the behaviour of the game system.

Mechanics are thematized in the context of the game narrative, through a combination of "dynamics" and "aesthetics." As Elizabeth LaPensée (whose game *Invaders* is discussed below) told Vicki Moulder in a 2017 conversation: "Ways of knowing and game mechanics always inform one another in anything I work on" (n.pag.). LaPensée explains this relation at greater

length in a contemporaneous interview with Patti Martinson, in terms of her interest in the interaction between Indigenous culture and gaming. LaPensée distinguishes games that use representational "pan-Indian" characters from those Indigenously-determined games that are created from and by the Indigenous epistemologies that generate the fundamental game mechanics:

> I grew up playing games and looking for myself as a player character, but of course an Indigenous young woman wasn't there... I went with the close seconds like *Nightwolf*, which were these pan-Indian characters called the "keepers of their people" or "protectors of their people" but not actually represented in relation to land and communities and elders. I first started off critiquing these representations but recognized that if I was ever going to get to play a game that I wanted to play, I'd have to do it myself. I'm interested mostly in how Indigenous ways of knowing can be transferred into unique mechanics. That is, I want to go further than simply representing Indigenous culture through a game character, I want to see Indigenous cultures infused in the gameplay itself. (Martinson, n.pag.)

The transference of "Indigenous ways of knowing" into "unique mechanics" both thematizes game mechanics and goes beyond this content-based relation to encompass the interactivity that characterizes the player's structural engagement with the game system. In their study of the psychological dynamics of digital games, *Glued to Games* (2011), Scott Rigby and Richard M. Ryan argue that the degree of agency attributed to a player is enacted by the availability of opportunities to make choices, to act on them, and to see the consequences of those actions in the game-world (7). By emphasizing the creative role of the player, Rigby and Ryan de-emphasize the fact that player-input is always limited to the potentials for action encoded in the game mechanics by the game designer. This function (action-potential) thematizes player interactivity as one of the ways in which mechanics determines the meaning(s) of the game. Further, as LaPensée's remarks suggest, the capacity of interactivity to thematize issues like who has the capacity to assert authority within the game-world, and who is responsible for specific actions and their consequences, has a distinctive valence in Indigenous game design.[3] Rigby and Ryan link the concept of player agency with a need for personal autonomy; in contrast, a powerful motif that runs through LaPensée's conversation with Vicki Moulder (and indeed all of LaPensée's work) is relationship with community:

- "To me, human-computer interaction and the well-being of all life must be interwoven";
- "Another important aspect of Indigenous game development involves creating the game and then gifting it to the community fully or partially";
- "Choices always come down to making sure I'm meeting the needs of the community I'm collaborating with." (n.pag.)

In these assertions, LaPensée crystallizes a recognition of the inseparability of human-digital interaction and "the well-being of all life" or the web of relations that characterizes Indigenously-determined games: relations among player agency, interactivity that is shaped by design choices that both enable and limit player-actions, respect for community rights and needs expressed through collaboration, and the orientation of the game design through Indigenous ways of knowing.

LaPensée is essentially talking about survivance as the principle that generates and thematizes Indigenous game mechanics. Vizenor's concept of survivance enhances understanding of the powerful decolonizing potential of mechanics in Indigenously-determined video-games and these game mechanics illustrate in particularly clear ways the workings of survivance as an active engagement in the politics of what Vizenor calls "native presence." In an interview with Jöelle Rostkowski, Vizenor remarks: "The character of survivance creates a sense of native presence, a critical, active presence and resistance, over absence, historical and cultural absence, nihility and victimry" (xlvii). Native presence, then, in the fullness of Vizenor's concept, captures the essence of the tribal inheritance that is passed down as a potential for decolonization, from one generation to the next. In the discussion that follows, I seek to show how the sense of a critical, active Indigenous presence is created, by analyzing the mechanics of two very different types of Indigenously-determined video-games: the downloadable 2-D fixed shooter casual game *Invaders* (2015 Steven Paul Judd, Elizabeth LaPensée, Trevino Brings Plenty) and the Iñupiaq puzzle platformer video-game *Never Alone* (2014 Upper One Games). The mechanics of these games are designed to compel players to enact survivance, and understanding of this relationship underlines the importance of the decolonizing potential of Indigenous video games.

Invaders (2015): Survivance, Loss, and Resistance

The aspect of survivance that enacts resistance to "historical and cultural absence, nihility and victimry" (Vizenor) is explored through the 2-D fixed-shooter video-game *Invaders* (2015). The artwork is by Steven Paul Judd (Kiowa/Choctaw), the music by Trevino Brings Plenty (Lakota), and the game is designed and coded by Elizabeth LaPensée based on the Unity platform. This free downloadable game is available for a variety of platforms: Web, WebGL, Android, iPhone, and iPad.[4] In the 2011 interview with Vicki Moulder cited above, Elizabeth LaPensée discusses the necessity of making her work available to communities where "access is so limited that I'm focusing mostly on mobile, Web, and museum games that I'm sure will reach community members. I've been back and forth between living where there's very limited Internet access, so really, why would I make games I can't even play myself?" (n.pag.) This accessibility locates *Invaders* as an instance of what in the industry is known as a "casual game." In *A Casual Revolution* (2010) game theorist Jesper Juul identifies several distinctive qualities of casual games: that they are easy to learn to play and can be played in a variety of different situations; they use mimetic interfaces—"the physical activity that the player performs mimics the game activity on the screen" (5)—and they do not require a great deal of time or investment: they "can be played in short time bursts, and generally do not require an intimate knowledge of video game history in order to play (5). The casual game genre of *Invaders*, then, meets precisely LaPensée's need to reach and involve communities in her work of survivance.

As the title suggests, *Invaders* is based on the 1978 classic arcade game *Space Invaders*, the aim of which is for the player to save the Earth by preventing the alien invaders from landing, by shooting them down using a laser base. *Invaders* uses the same basic game mechanics as *Space Invaders* but re-thematizes them in axiological ways that express a powerful sense of survivance: indigeneity is inscribed as persistence and resistance to historical erasure, and the subject position of the victim. This re-thematization of mechanics is achieved both through the game's dynamics (the player's interface with those algorithms that determine the behavior of the game system) and most obviously through the emotional impact on the player of the game's visual and musical aesthetics. In a well-designed game like *Invaders* the dynamics and aesthetics work inseparably with game mechanics—and in this game, they create performative relations of survivance. As designer Elizabeth LaPensée explains,

> The game is meant to be played in quick bursts for the attainment of a high score, much like the original *Space Invaders*. However, in the context of playing as an

> Indigenous warrior, the design takes on another meaning—no matter what, the aliens eventually obliterate your character and community. Lives are represented not as numbers or even as your own, but instead as the warriors who stand side by side with you. If you get hit, you permanently lose a community member. This mirrors the very real losses experienced as colonizers attacked and decimated Indigenous communities during invasion. ("Indigenous Game Design" n.pag.)

The evocation of loss as "tragic wisdom" is achieved through the game's axiological resistance to "victimry," a feature that is encountered as soon as the game starts. The launch screen offers the player only two options: to play or to quit. After the player fails to stop the alien invasion and is defeated, the only option offered is to "play again," which returns the player to the launch screen. Each time the game is played a conscious ethical decision to engage actively in the scene of conflict and to reject surrender or the position of the defeated victim is demanded.

The significance of this demand for survivance-as-resistance is highlighted by the differences in game design between *Invaders* and the original 1978 arcade game. The laser base that in *Space Invaders* is used for shooting becomes in *Invaders* a Native warrior-avatar, which the player moves horizontally across the bottom of the screen. The impersonal firing of a laser weapon in the original game is replaced by the personalized manipulation of the digital warrior-character. The haptic interactivity—literally a "hands-on" relation—between the player and the character (rather than a direct relation between player and weapon) suggests at least a minimal identification through the subject-position of the warrior-avatar. Standing behind the active avatar there are three more, which move in succession to take the place of the active warrior when he is "killed"; thus, the player has a total of four "lives" with which to play each game. The significance of the warrior-avatar is explained by LaPensée in an interview with Chad Sapieha to mark the showing of *Invaders* at the 2015 Toronto *imagineNATIVE Film + Media Arts Festival and the Digital Media Art+Cade*:

> *Invaders* is inspired by original artwork by Steven Paul Judd that depicts warriors facing off with sprites from the arcade game *Space Invaders*. The game calls into question the term "invaders" and what an "alien encounter" can mean for Indigenous people. Lives in the game are represented by images of community members rather than numbers, hopefully causing players to recognize the real lives lost because of colonization." (n.pag.)

The warrior-avatar shoots arrows (not lasers) at the invading spacecraft, which appear in increasing numbers, with each successive level or "wave" moving horizontally across the screen while at the same time advancing towards the bottom of the screen. Thus, the basic game mechanic is very simple: using the arrow-keys on the keyboard, the player moves the warrior-avatar horizontally across the screen while using the up-arrow to shoot. This mechanic is thematized in the desktop version of the game by the mirroring of the player's use of keyboard arrows and the avatar's shooting of arrows. By playing on the double significance of "arrows" the mechanic instantiates the subject position of the player while suggesting a further gesture towards Vizenor's concept of "wordarrows" as discursive weapons in the ongoing struggle for Indigenous cultural self-determination.[5]

Invaders uses the same pixelated "vintage" icons for the four varieties of spacecraft, though Columbus's *La Santa María* makes occasional appearances. The destruction of each type of invader earns the player points, earning more points for destroying the larger spaceships that fire more powerful weapons. As in the original game, different kinds of weapons are used by the invaders but in *Invaders*, rather than moving uniquely, the weapons are increasingly destructive culminating in the rockets, bombs, and super-charged bombs that are fired by the Mystery Ships. The player controls the warrior-avatar's shots but the invaders' shooting is generated randomly by the game system. The "wave" ends when the player has destroyed all the alien spacecraft, thus averting the invasion, but the next wave starts immediately with the appearance of an even greater number of invaders to defeat, in a loop that is endless and relentless. The pace of the game is significantly faster than in *Space Invaders* where each of the player's shots must reach the top of the screen before the next shot can be fired. In *Invaders* there is no limit on the speed of shooting and if the player has received the "rapid fire" bonus then s/he can fire continuously for the duration of that bonus power. Adding to the relentless pace of the gameplay in *Invaders* is the absence of the stationary protective shields or bunkers arranged in *Space Invaders* along the bottom of the screen, just above the laser base. There is no refuge at all to be had in *Invaders*. The warriors have nowhere to shelter from the bombardments, which become extremely intense in the later waves when many invading spacecraft are firing at the same time. The player's dexterity is severely tested by the need to move the warrior-avatar in increasingly precise ways to avoid the incoming missiles, with no shelter or shield to offer respite.

Conditions for ending each game also differ significantly: in *Space Invaders* the game

ends when the invading spacecraft reach the bottom of the screen, indicating that the invasion has been successful; the game also ends when the last of the protective bunkers has been destroyed. *Invaders*, in contrast, ends when all four warrior-avatars have been killed; if an invader reaches the bottom of the screen, the next wave of the invasion continues. Unlike *Space Invaders*, there is no maximum limit placed on the number of points a player can score: in the original game this was limited to 9,999 because this is the largest number that can be seen on the four-digit arcade display (*Space Invaders Manual* n.pag.). While there are no "extra lives" to be won as a bonus for acquiring a specified number of points, on the more advanced levels of *Invaders* the power of "rapid fire" is gifted when a ghosted quiver of arrows appears at the top of the screen; the player must move the avatar to "catch" the arrows as they move down the screen, acquiring this temporary power that lasts only a few seconds. The game's dominant shooting mechanic requires that, in order to survive, the player must balance the winning of points (firing arrows at the invaders) with the need to play defensively (evading the invaders' weapons). In this way the game mechanic integrates acts of resistance and survival in its performance of survivance.

In *Space Invaders*, the speed of the invasion and the tempo of the music increase linearly as more alien spacecraft are defeated; in *Invaders* the sheer number of invaders increases while the circularity of the music continues in an infinite loop. Such a comparison, however, belies the complexity of Trevino Brings Plenty's composition for *Invaders*, which represents an intricate reinterpretation of the original game music within the context of survivance. The function of music in the original *Space Invaders* significantly advanced the role of sound in subsequent video games, as Andrew Schartmann argues in *Maestro Mario: How Nintendo Transformed Videogame Music into an Art* (2013): by enhancing player interactivity by providing auditory feedback, by providing stimulus through the continuous four-note loop, and by demonstrating the potential of sound effects so that "[o]ver the years, analogous strategies of variation would be applied to pitch, rhythm, dynamics, form, and a host of other parameters, all with the goal of accommodating the nonlinear aspect of video games."[6] Trevino Brings Plenty's strategy of variation is based on the indigenizing of the original music. In his fascinating short video, "Tutorial on composing music for the game 'Invaders'," Brings Plenty describes in detail his method of composition for the game. He started with the various elements of the game mechanics that required different kinds of music and auditory feedback: the launch screen and

opening/ending sequence music; sound effects for the player's shooting and player death or invader death; and to signal the appearance of the Mystery Ship or other invaders. His strategy is based on the layering of musical lines that then play on infinite loop throughout the game. In his account, he began with the set bass-line music that speeds up throughout the game (1:19). The four-note C- bass line, he describes as "ominous"—in classical music, he notes, C- is the key for death (3:07)—and the tempo of 90 beats per minute based on the hand-drum sound (3:50) emphasizes the sound of "live artifacts" (5:08). To the bass-line and drum beat he added "a soft, almost ethereal harmonic line" to increase depth, and then added a "choppy" electronic beat that alternates with the drum beat. Four bars are repeated over and over (10:45), with live music complementing the use of the synthesizer and computer-generated plug-ins to avoid a sound that would be "too electronic." The drum beat unifies all the musical pieces; the same bass drumming line is deployed throughout but with variations. In the opening/closing sequence he added extra percussion (bass and treble) for emphasis, with handclaps to mark the turn-around of the loop. This "human element" is complemented by the fragmented reverberating "yell" that Brings Plenty added to the down beat (20:45) and the voiced reverberating "Oh" on the offbeat with the drum. The tension that is generated between the chords introduced by the voice and those of the bass line, together with the treble line characterized by a "sci-fi" quality, produces a complex musical experience to which Brings Plenty modestly refers as: "some stuff happening there that I think is pretty interesting" (22:23). A musical gesture to the extra-terrestrial, science-fictional nature of *Space Invaders* is retained in the eerie treble-line, while the base-line and the human-voiced themes emphasize the indigeneity of *Invaders.* Thus, Trevino Brings Plenty creates a musical score that underlines the player's participation in a game that is, as Elizabeth LaPensée describes, "a message of reflection, of pointing out that we, as Indigenous people, have already experienced the apocalypse. Now we survive to thrive." ("Indigenous Game Design" n.pag.).

The musical fusion of the futuristic with the Indigenous in *Invaders* works with the game's artwork to thematize the survivance ("survive to thrive") "message" of the game mechanics. The game was initially inspired by a T-shirt designed by Steven Paul Judd for the Native American Rights Fund in which the original *Space Invaders* alien spacecraft are ranged opposite four Indigenous warriors posed to evoke "classic" photographs of "Indians," like those of Edward Curtis. Judd's sometime collaborator, Simon Moya-Smith, describes Judd as "one of a wave of Native American artists who use contemporary tools to make salient the modern Native

American experience, from pain to prosperity. His medium of choice: paint and ink (which he refers to as 'war paint'), as well as graphic design programs in which he will superimpose an image of, say, a flying saucer onto a centuries-old photo of a Native American camp." He quotes Judd: "'I just want to make cool stuff for Indians to have, and that gets white people to think,' said the Kiowa and Choctaw artist. 'I want to make the stuff I never got to see as a kid'" (n.pag.). Moya-Smith's example of Judd's "War Paint" series—images of cans of spray paint labelled "War Paint"—is described by Wilhelm Murg as an "Andy Warhol-esque blend of pop culture, street art and reverse cultural appropriation" (Murg n.pag.). This combination typically generates the visual and aural puns that characterize Judd's work—another instance would be the series "LEGO My Land" that shows "Indian" figures in the form of LEGO dolls, or Judd's characters Siouxperman and Siouxperwoman.

Figure 1. Steven Paul Judd, *Invaders*. 2015. [iOS]. Digital art. Screenshot 8 Sept. 2016.

The visual art of *Invaders* presents a powerful pun on the concept of the frontier, specifically "space as the final frontier," by juxtaposing two frames of reference: the historical settler-colonial frontier through the warrior-avatars and the futuristic icons of alien space-craft. However, the iconography of the invading aliens is not "futuristic" in the sense that, in terms of the history of video-games, *Space Invaders* effectively belongs to the past. Thus, there is a dramatic irony at work in the complex image that brings together two sets of "historical"

symbolism. Judd has explained something of this interplay: "With *Invaders*, it is also a two-part thing… I loved *Space Invaders*, and the second part is, well, I think you can read into it: Someone is trying to invade where you are living, you know, peacefully. I tell people it's the only time you're allowed to play Indian and not get in trouble" (Murg n.pag.). The shift from the past tense in relation to *Space Invaders* ("I loved") to the present continuous tense ("Someone is trying to invade") suggests the same dynamic temporal relation that is achieved in *Invaders*: where *Space Invaders* belongs to the past, *Invaders* engages with the continuing present moment of colonial invasions that have never stopped. The iconography used by Judd takes the twentieth-century space-craft of *Space Invaders* back to the nineteenth, and brings the nineteenth-century image of "the Indian" into the twentieth, to dramatize the ongoing nature of settler-colonialism. Indeed, the T-shirt design that inspired the game introduces to this dynamic further historical moments: the Native American Rights Fund design features a "high score" of 1970 (the year when the NARF was founded) and in the reissue of this design for "The NTVS," an online Native American clothing company, Judd changed the "high score" to 1491. Thus, the present reality of settler-colonial invasion is traced not just to the nineteenth century but right back to the first invasion of the fifteenth century. This complex historical point is crystallized by the juxtaposition of resonant visual icons, avoiding an overt statement but creating the potential to interpret the Indigenous figures as victims of colonial history.[7] The warrior-avatars, however, engage with this inherited history as active, ethical agents of resistance and survival. Gyasi Ross underlines this quality of survivance in all of Judd's work in the review, "Man Crush Monday: The Audacious Genius Art of Steve Judd, Kiowa Love Machine" (2014):

> instead of going the route that many seem to be infatuated with nowadays—constantly protesting and whining about the mainstream imagery of Native people (and thereby reaffirming the white supremacist power structure that makes Natives the objects that react to the white/male/patriarchal subject), Judd goes in the complete opposite direction! He creates HIS OWN positive and healthy Native images. Imagine that—Native people can actually create our own healthy (or unhealthy!) images instead of simply crying about what non-Natives give us.
>
> That's powerful, my friends. That's self-determination. That is the power to influence generations of Native people. Instead of angrily protesting popular images of Natives, he's consistently showing the many ways Native life is beautiful. (n.pag.)

Judd's images substitute agency for reaction and Indigenous presence for absence, performing survivance in the sense described by Vizenor in "Aesthetics of Survivance" as "an active sense of presence over absence, deracination, and oblivion; survivance is the *continuance* of stories, not a mere reaction, however pertinent" (1, emphasis added). To play *Invaders* is to recognize that settler violence has not ended; that Indigenous people still exist with their tribal integrity intact. Playing is the active participation in a history of survivance through the interconnectivity of aesthetics (art and music), dynamics (the player's experience of interacting with the game system), and mechanics (the rules of the game, including the possibilities for winning, losing and ending the game).

This is not to deny that the fundamental activity in which the player of *Invaders* participates is losing. The game mechanics dictate that the player will always and inevitably lose; this is a game that cannot be "won" in any straightforward way—and that is the point. In his study of losing in video-games, *The Art of Failure* (2013), Jesper Juul explains:

> the paradox of failure is unique in that when you fail in a game, it really means that you were in some way inadequate. Such a feeling of inadequacy is unpleasant for us, and it is odd that we choose to subject ourselves to it. However, while games uniquely induce such feelings of being inadequate, they also motivate us to play more in order to escape the same inadequacy, and the feeling of escaping failure (often by improving our skills) is central to the enjoyment of games. Games promise us a fair chance of redeeming ourselves. This distinguishes game failure from failure in our regular lives: (good) games are designed such that they give us a fair chance, whereas the regular world makes no such promises. (7)

In fact, *Invaders* refuses to offer the player "a fair chance." The game mechanics ensure failure because more and more enemy invaders appear, and they are increasingly powerful, while the player is powerless to control their behaviour. In this respect, and also due to the lack of defensive actions that the player might take, the game itself seems intrinsically unfair. But the injustice built into the game environment through the mechanics is balanced by certain compensations that include, as Juul writes, the chance to try to escape the feeling of failure. Each wave of invaders challenges the player to improve their response-speed and accuracy of shooting, holding out a promise that the player might perform better next time, both with practice and as the game mechanics become more familiar.

This motivation to improve is enhanced by the implied relation between the fictional world of the game and the extra-diegetic world of the player or what Juul calls "the regular world." As he observes, the frustration of losing can take the form of an emotional bond with the game because "[w]e are motivated to play when something is at stake" (13). What is at stake in *Invaders* is precisely the complex historical homology created by the artwork, musical score, and game mechanics between fictional invasion by alien space-craft and actual settler-colonialism. Elizabeth LaPensée emphasizes this relation as a fundamental aspect of her design of the game: "in the context of playing as an Indigenous warrior, the design takes on another meaning—no matter what, the aliens eventual obliterate your character and community. Lives are represented not as numbers or even as your own, but instead as the warriors who stand side by side with you. If you get hit, you permanently lose a community member. This mirrors the very real losses experienced as colonizers attacked and decimated Indigenous communities during invasion" ("Indigenous Game Design" n.pag.). Playing as an Indigenous warrior demands effort to save the community and the other warrior-avatars, as well as to preserve one's own virtual life. Jesper Juul describes this in-game experience where "the goals of the player are… aligned with the goals of the protagonist; when the player succeeds, the protagonist succeeds" (27).[8]

The player-response that is privileged by the game mechanics is not avoidance of loss but awareness of the proper use to which the anger and frustration of losing are directed. In *Invaders*, the player can simply quit the game—when all four warrior-avatars have been killed a screen appears that offers the stark options: quit or play again. Since the ostensible goal of the game—to destroy definitively all of the invaders—is impossible to achieve, the effort to "play again" is, in itself, an escape from the feeling of failure and a qualified measure of success. The determination of success is qualified by the causes to which failure are attributed. Three possible causes identified by Harold K. Kelley are: a person, an entity, and circumstances (qtd. Juul 15). A person may be held accountable for failure due to inadequate skills (the player's ability to shoot, for example); an entity can be seen as the cause of the occasion for failure (the power and relentless appearance of more and more invading aliens, in *Invaders*); and circumstances that cause failure, according to Kelley, may include bad luck or chance (qtd. Juul 16). In *Invaders*, the player's lack of skill can be improved with persistence but neither the seeming invulnerability-through-numbers of the invading aliens, nor the historical circumstances evoked by the game—through the homology among (first) the diegetic world of the game, (secondly) the

historical world evoked by the artwork, and (thirdly) the present world of ongoing colonization in which the player is located—can be changed for the better. An ethical act of resistance in the face of overwhelming odds (the axiology of survivance) is the only positive response made available to the player of *Invaders*. This is, as noted above, Elizabeth LaPensée's intention for the game; the recognition that, as she says, "we, as Indigenous people, have already experienced the apocalypse. Now we survive to thrive" ("Indigenous Game Design," n.pag.). Playing this game involves frequent endings and continual experiences of loss that pose the questions of how and why the player has lost. The feedback from the game itself is clear: the player loses because of the superior numbers and firepower of the invaders. This leads directly to Juul's question: "Is there a difference between failing inside and failing outside a game?" (10). The answer, in *Invaders*, is clearly "no." There is no fundamental difference, in historical terms (because Indigenous lands have in fact been colonized) or in subjective terms, because the imperative of survivance under which Indigenous people have lived since 1491—to resist, to survive, to preserve and continue the cultural inheritance passed on by elders and ancestors to their heirs—has never ended.

Never Alone (*Kisima Ingitchuna*, 2014): Survivance, Indigenous Epistemology, and Native Presence[9]

Like *Invaders*, the Iñupiaq puzzle-platformer video game *Never Alone* (*Kisima Ingitchuna*, 2014 Upper One Games) enacts survivance as the epistemological practice of a living, tribal presence that is sustained in the past, enacted in the present, and transmitted as the inheritance of the future. Simple physical survival in a group environment is not survivance; survivance names a manner of living with indigenous integrity while resisting by transcending the assimilative pressure applied by the dominant settler-colonial community. This is why Gerald Vizenor calls the relation between Indigenous nations and the US federal government "paracolonial" (*Manifest Manners* 77). What is left after the onslaught of active territorial colonization is the parallel existence of tribal nations alongside the settler-nation. Survivance then is grounded in the cultural and political values that must be passed on in order to sustain an Indigenous community that functions on the basis of inherited tribal values. The fundamental cultural values shared by Alaska Native peoples, which motivate *Never Alone*, are described by Yupiaq philosopher Angayuqaq Oscar Kawagley in *A Yupiaq Worldview: A Pathway to Ecology and Spirit* (1995).

He identifies four primary values: harmony, responsibility, reciprocity, and learning. Harmony he defines as "an intricate subsistence-based worldview, a complex way of life with specific cultural mandates regarding the ways in which the human being is to relate to other human relatives and the natural and spiritual worlds" (8). Responsibility as an "attitude was thought to be as important as action; therefore one was to be careful in thought and action so as not to injure another's mind or offend the spirits of the animals and surrounding environment. For one to have a powerful mind was to be 'aware of or awake to the surroundings'" (8). Reciprocity signifies that "all of life is considered recyclable and therefore requires certain ways of caring in order to maintain the cycle. Native people cannot put themselves above other living things because they were all created by Raven, and all are considered an essential component of the universe" (9). Perhaps even more fundamental than these three principles is the value of learning: "Alaska Native worldviews are oriented toward the synthesis of information gathered from interaction with the natural and spiritual worlds so as to accommodate and live in harmony with the natural worlds and natural principles and exhibit the values of sharing, cooperation, and respect" (11).

These values are taught through an Indigenous pedagogy that departs from European understandings of education in almost every respect. Both Kawagley and Tewa philosopher Gregory Cajete emphasize interactivity or active participation by the learner in a process that is: fundamentally place-based, nature-centered, community-focused, spiritually-oriented, and indebted to the wisdom of the elders. Cajete describes the nature of traditional Indigenous education as "[t]he cultivation of one's senses through learning how to listen, observe, and experience holistically by creative exploration… all tribes highly regarded the ability to use language through storytelling, oratory, and song as a primary tool for teaching and learning. This was because the spoken or sung word expressed the spirit and breath of life of the speaker and thus was considered sacred" (32). These forms (storytelling and oratory) and concepts (place, nature, community, spirit, inheritance) of Iñupiaq traditional knowledge guide the design of the game-play mechanics in *Never Alone*.

The fundamental aim of *Never Alone* is twofold: the preservation of Iñupiaq language, story, and ways of knowing; and the dissemination of Iñupiaq values of resiliency and survival, cooperation, intergenerational wisdom, and the interdependence of land, people, and animals. The structure of the game requires the player to perform these values while moving across the computer screen, thus going beyond the static modes of telling made possible via the printed

word and the passive reception of story through media such as film, video, and television. The game is able to recreate the conditions of oral storytelling, with the additional advantage that the player becomes the active narrative protagonist. The identification between the player and the game avatar is the primary vehicle for empathy, as the player experiences something akin to Sam McKegney's view of community as the sum of culture and politics, where culture is "a lived series of acts within actual political units of community" (56). This emphasis on acts, action, and activism serves an "ethical commitment [to] the survival, enrichment, and eventual self-determination of Indigenous communities." And in *Never Alone* the player is the active agent of this axiological process of survivance.

The objectives of the game—the preservation and dissemination of inherited traditional knowledge—are actions realized through the game narrative, which retells the ancient story "Kunuuksaayuk," recorded by Iñupiaq storyteller Robert Nasruk Cleveland who passed it to his daughter, Minne Aliitchak Gray, one of the cultural ambassadors who shaped the video-game. *Never Alone* is narrated in Iñupiaq (with subtitles available in another ten languages) by James (Mumiġan) Nageak. The story is about a young boy (though in *Never Alone* the protagonist is a young girl, Nuna) and his journey to discover the source of a never-ending blizzard that is threatening his village. This is the quest on which the player embarks: the search for the knowledge that will lead to truth is realized through continual ethical action. Thus traditional knowledge is experienced as a verb or a set of behaviors rather than a tool or noun. In this respect, the story performs what Jace Weaver describes as a communal identity-producing role at the same time that the communally-developed story is passed down as cultural inheritance to the next generation within the Iñupiat community (and beyond). These qualities of the story are thematized in the game, as Ishmael Angaluuk Hope suggests when he remarks that the game story is about how to be the kind of person who can bring about a return to "true living in the community." This lesson in survivance is essentially what the game teaches the player.

Never Alone, then, performs important work of cultural inheritance, passing on the key values of a living, thriving Iñupiat traditional community. Nearly forty Iñupiaq elders, storytellers, and community members contributed to the development of the game, working with Cook Inlet Tribal Council and the non-Native educational publisher E-line Media. However, responsibility and accountability for the Indigenous direction of the game were firmly located with the traditional tribal custodians of knowledge, who had the power of veto over all aspects of

the game's development. Sean Vesce, the Creative Director at E-Line, describes an incident when the community exercised this power to correct a proposed game mechanic that contradicted traditional values:

> What was really important for us [was] to portray [the Iñupiaq] spiritual worldview within the game, and it's a really complicated subject… The game designers at the time, we all were in favor of a model… where the player can hit a button and basically move from a regular environment, a regular realm to the spirit realm, and there was a lot of gameplay involved in crossing between those by virtue of the player hitting the button to change modes. And when we showed an initial prototype of that to members of the community, they said, "You've got it all wrong… The spiritual world is not something that is on demand. We can't will that into existence and go back. You have to embody the values. You have to demonstrate a level of competency in order to experience that, and it's a gift that's given to you. It's not something that you control." So that was a really core mechanic that we were starting down a path of, that was really representative of misunderstanding from us, that comes from being raised in a Western ideology. (qtd. Scimeca n.pag.)

As Vesce indicates, the performance of Iñupiaq values through the player's interaction with the game relies primarily on the design of the game mechanics.

Sean Vecse has suggested how the design of the mechanics of *Never Alone* had to take careful account of traditional Iñupiaq ways of learning, knowing, and acting on the level of physical interaction between the player, the game controller, and the game world. Contextualization of the mechanics impacts the game on every level. In terms of the genre of the game: *Never Alone* is a side-scrolling puzzle-platformer, requiring that the player continually moves the avatars Nuna and Fox across the screen from left to right, advancing forward in a way that follows the linear narrative of the storytelling. The story is narrated in continual voice-over, with foreign language subtitles appearing on each screen. As the narrator's voice is heard, the player is performing the story in a combination of passive and active modes of reception that replicate and advance the oral tradition of storytelling. The inheritance of tribal orature is a key element of survivance, counteracting the colonialist erasure of living Indigenous cultures. Weaver explains: "Limiting consideration or admission to the canon to orature is a way of continuing colonialism. It once again keeps American Indians from entering the 20th century and

denies to Native literary artists who choose other media any legitimate or "authentic" Native identity" (23). If orature is the only expressive form available to "real Indians" but orature has become "extinct" then so too must those "authentic" Indians have become extinct in the modern world. The orature constitutive of video-game mechanics offers a powerful oppositional response to the myth of Indigenous "vanishing." Not only is the oral tradition alive and thriving in a game like *Never Alone* but the digital medium of the game contradicts the assumption that "Indians" belong only to the historical category of the primitive and have not survived into the contemporary period. James (Mumiġan) Nageak's oral narration of the story "Kunuuksaayuk," in Iñupiaq, is not only evidence of Indigenous cultural continuity but actively works to preserve and disseminate the tribal language that encodes in the story traditional Iñupiaq values and ways of knowing and being. To emphasize the importance of orature to the building and unification of community, Weaver turns to the words of Pueblo poet Simon Ortiz:

> Noting the coterminous nature of orature and contemporary culture, Simon Ortiz declares, "The oral tradition is not just speaking and listening, because what it means to me and to other people who have grown up in that tradition is that whole process… of that society in terms of its history, its culture, its language, its values, and subsequently, its literature. So it's not a simple matter of speaking and listening, but living that process." (qtd. 47)

Living the process of the story is what the player does by interacting through the avatars Nuna and Fox, switching between these two characters or playing in two-player mode with each player controlling one of the avatars, in order to complete successfully the challenges presented by the game. Each avatar-character has unique capabilities: Nuna can climb, move objects, and throw her traditional bola; Fox can fit into small areas, jump high, and moves faster. Neither Nuna nor Fox can proceed if either is left behind, so cooperation between the human and other-than-human animal is a fundamental game mechanic. Together, Fox and the force of the wind help Nuna to jump onto a spirit's back; Fox's movements help to guide where Nuna must move, and Fox is able to guide the spirit helpers. Trees come alive and reach out to greet Fox. This cooperative behaviour is coded into the mechanic that governs the assistance offered by other animal and spirit entities who will, for example, lift Nuna and Fox across the screen, from one object to another; but these helpers cannot be summoned at will by the avatar-player, their help being a gift freely given. However, from mid-point in the game, when he transforms into a boy-

spirit, Fox can move freely by "swimming" around the screen to access objects that are inaccessible to Nuna, and he is able to activate "Helping Spirits" to overcome obstacles so the characters can proceed from screen to screen.

The completion of the challenges that comprise episodes of the story is rewarded with the unlocking of "Cultural Insights" in the form of interviews with Iñupiaq elders, storytellers, and cultural ambassadors. These short embedded documentary videos must be earned and they then provide cultural information that helps the player to overcome subsequent obstacles and threats. By using this inherited information, the player transforms data into experiential knowledge, in a learning process that enacts traditional Iñupiaq educational forms. "Cultural Insights" relate to the main game narrative in several ways besides offering information. Some "insights" explain or interpret narrative events that have already taken place. For example, in one of the most distressing episodes of the game narrative, Fox is killed by the man, "the terrible one," who wants the bola. We move to a cut scene in which Nuna and Fox fall down into a snowy forest landscape; Nuna grieves the loss of her companion but then Fox is reborn into a different form, the form of a boy-spirit, who "swims" in the air around Nuna. The narrator puts into question the ontological distinction between the other-than-human animal and the humanized spirit-being by asking, "was it [the boy-spirit] who he [Fox] really was this whole time?" In the Cultural Insight that follows, "Animal Spirits," Ishmael Angaluuk Hope explains how the Iñupiat do not recognize a hierarchy of creation with humans separate and "on top." In Iñupiaq cosmology, all animals have or can be seen in a human form but the animal must want to be seen in its human form. From this point, a game mechanic offers the player a button which when held down allows interaction with spirits. The narrator underlines the interrelatedness of the animal, human, and spirit entities by remarking that Fox continued to reveal "the beauty of the helping spirits." By acting on the traditional knowledge that is gained, the player-avatar is rewarded with increasing ease of movement, a greater capacity to overcome obstacles, and a greater sense of belonging in the Iñupiaq diegetic world.

The challenges presented in the game are puzzles, primarily spatial obstacles (such as unstable ice floes, caverns, or precipices) or entities that may be animals or spirits, that block the progress of Nuna and Fox. Navigating the story space of the game demands close attention to all aspects of the environment, in the manner of Cajete's description of traditional Indigenous education: by "[t]he cultivation of one's senses through learning how to listen, observe, and

experience holistically by creative exploration" (33). Many of the features of the diegetic world are neither "good" nor "bad" but must be understood and accommodated by the player. For example, one of the mechanics introduced early in the game is the behaviour of wind (remember, the crisis engaged by the story is a never-ending blizzard). A strong gust of wind will push Nuna off an ice precipice or into a chasm so when the player hears the wind approaching, s/he must manipulate the controller so that she crouches protectively; however, in subsequent scenes, the only means by which Nuna can jump across ice floes is by harnessing the power of the wind to give her distance as she runs and jumps. The wind, a natural phenomenon, is not presented pejoratively. Rather, the player acting through the avatar is required to learn to read and respect environmental conditions, and then adapt their behaviour accordingly. This mechanic illustrates the importance of learning to watch closely and to interpret accurately the diegetic space of the game, which is underlined in the Cultural Insight entitled "Reading the Weather." As the game narrative progresses new mechanics are introduced through the reading of the diegetic space. For example, when a sparkling spirit ball appears Nuna is able to call a spirit helper if she hits the ball with her bolo. Or entities in the environmental background, like the owl early in the game, can later become actors such as when that owl takes human form to give Nuna a side quest—finding and returning his drum—which is then rewarded with the empowering gift of the bolo. Here, the Iñupiaq value of interrelation among all elements of creation works with the game dynamics and aesthetics within the diegetic space to thematize the introduction of the mechanic of the bolo, which Nuna learns will not only enable her to call spirit helpers but in more practical terms allows her to break down ice walls that block their path. The mechanics that determine game action work closely together with the game dynamics of challenge and fellowship or cooperation, and the game aesthetics, to produce a covert level of meaning that is resistant to paraphrase. Located in the player's experience of reading the diegetic world through Nuna and Fox, and receiving reward in the form of cultural insights, this covert meaning can be equated to the adoption of an Iñupiat subject position within the diegetic community of creation.

The ultimate objective of the game is to discover the source of, and resolve, the mysterious blizzard that afflicts Nuna's village. To achieve this, Nuna must cooperate with Fox, primarily, but also the entire game-world environment that comprises beings of all ontological kinds: plants, human and other-than-human animals, ancestors and spirit beings, and mythological monsters. In this respect, *Never Alone* enacts Weaver's "linkage of land and people

within the concept of community... lands populated by their relations, ancestors, animals and beings both physical and mythological" (38). In *Never Alone* the Iñupiaq concept of such a community of creation is named "Siḷa": the space that connects the land, the moon, sun, and stars, and the weather. Siḷa has a soul, and spirit helpers reside within Siḷa. Amy Fredeen, lead cultural ambassador and a Cultural Insights contributor, explains in "Siḷa Has A Soul" that "[i]t's not one way of seeing things, it's one way of knowing you're connected to everything." In the game, then, Siḷa is the shared network of relationships among all entities in the game environment. Even the destructive "Manslayer" who is causing the devastating blizzard is part of this network of relations. This character is a recurring villain in traditional Iñupiaq stories where he threatens the survival of individuals and the whole community. But in the final Cultural Insight ("Kunuuksaayuka") Ishmael Angaluuk Hope explains that Manslayer or the "blizzard man," is like "the physical embodiment of an element of nature." The protagonist who confronts Manslayer represents a return to order on a cosmic scale and to "true living within the community" of all creation. Amy Fredeen adds that the moral of the story's conclusion is "don't think only of yourself but always keep the community in your heart." This is the community that is Siḷa.

The interconnectedness and interdependence that characterize Siḷa are related to the Indigenous understanding of kinship that is key to the experience of survivance. As Weaver reminds us, "[n]ature, an understanding of which was essential to Native survival, is viewed and characterized in kinship terms. More than simply a sense of place, though it is often that as well, this view of 'creation as kin' imbues the work of Native writers, in different ways, with a potent sense of interrelatedness" (163). At one point in the game, Nuna and Fox are trapped in an ice-cave with an angry polar bear. If the player-avatar tries to break the ice, s/he dies. If the player-avatar tries to kill the polar bear, s/he dies. Through the repeated experience of failure, the player must learn to control Nuna as she evades the bear, allowing it to break the ice and open an escape route for Nuna and Fox.

Figure 2. Upper One Games & E-Line Media, "Ice Floes." *Never Alone*. 2014. [PC]. Digital art. Screenshot 8 Dec. 2016.

The game mechanic here demands that the bear-character be the agent that breaks the ice wall; if Nuna tries to break the ice or kill the bear the player-avatar spends too much time in that part of the game-world exposed to the bear's anger and so is killed. The obstacle to progress, the ice wall that encloses the cave, can be overcome only if the player respects the "bear-ness" of the bear and does not try to impose control on the bear's actions but allows it to express its anger and frustration by attacking the ice wall and knocking it down. Later in the game, the bear reappears as a "helper" but, again, behaving according to its ursine nature, to which the player must adapt. In both instances the bear assists Nuna and Fox when these avatars respect the bear's role within the totality of Siḷa.

As the game progresses, the player must act with an increasingly complex understanding of the game mechanics that govern Siḷa and of being appropriately "human" in the Iñupiat world, by collaborating respectfully with weather, environment, animals, trees, ancestors and spirit beings. In the *Aurora borealis* sequence, a Cultural Insight "Northern Lights" has passed on the story that the beautiful but mysterious green lights dancing and swooping through the air are, in fact, children who have died in childhood, and are now playing in the sky. The story warns that if these spirit beings are encouraged to come too close or if someone goes outside without wearing a hood, they will cut the heads off their unsuspecting victims and use the severed heads to play with as balls. This story contextualizes the following game segment, in which the primary hazard is the animated spirit lights (the "Aurora people") who threaten Nuna and Fox. The narrator warns that the player-avatars Nuna and Fox are located in an environment hazardous to those who do not heed the wisdom of the elders, evoking the story that has just been told. With the inherited knowledge of the story and the capacity to move cooperatively within the diegetic space, Nuna and Fox are able to evade the Aurora people just as they did the polar bear. If they are touched by one of the spirit beings they will die; if their actions respect the nature of these beings then they can progress in the narrative.

The Cultural Insight "Northern Lights" is the seventeenth of the twenty-four embedded videos. At this stage of the game, the interpretative relation between the videos and game play is familiar but the *Aurora borealis* sequence underlines the importance of inherited knowledge; it is

juxtaposed with the immediately preceding "King Island" sequence and the relation between the two creates the potential for a level of covert meaning to emerge from the game narrative. The Cultural Insight "King Island" describes the Iñupiat community that historically lived on this rocky outcrop (*Ugiuvak*) in the Bering Sea; the embedded video explains the nature of the distinctive stilt housing built high against the steep rocky cliffs as preparation for the following game-play sequence in which Nuna and Fox must navigate an unstable environment of abandoned and collapsing structures evocative of King Island houses. The narrators emphasize the fact that these stilt houses remain in place today and mention in passing that "it's a growing community as the people return back to their island." What is not explained is why the island was abandoned, to be re-inhabited only recently. Alice Rogoff, in a recent article published in the *Alaska Dispatch News*, provides the history that is missing from the Cultural Insight:

> In 1959, just before Alaska's statehood, the Bureau of Indian Affairs decided summarily to close the island's school. In so doing, a bureaucratic decision effectively ended their lives there, forcing several hundred families to become new residents of Nome, a foreign place with a gold mining past, not predisposed to embrace an ancient island Iñupiaq culture that had lost its island. And the transition was not administered with care: young children were forcibly separated from parents in the name of school "truancy" laws; older ones were sent to boarding schools thousands of miles away, with no way of communicating with families left behind. In short, the fabric of King Island extended family life was shredded without cause. The stated reason for the move, from the BIA, was that a boulder was about to roll down the hill and crush the school.
>
> More than 50 years later, the boulder still hasn't moved. (Rogoff, n.pag.).

This direct colonialist intervention of the US Federal government, through the Bureau of Indian Affairs, achieved a number of things: the vacating of the island, the collapse of the traditional Iñupiat community, the weakening of family and community relations through forcible separation, and the removal of Indigenous children into assimilative mainland schools. Recall the point made earlier: survivance is grounded in a complex network of interrelationships among the people, the land, other-than-human animals, mythological entities, spirit beings, and ancestors. The removal of the people from their traditional lands breaks this network and commits what Weaver calls "a kind of psychic homicide" (38). Juxtaposed with the "King Island" sequence and the suppressed history of forced alienation of the people from their land is the "Northern Lights"

sequence that is motivated by the story of dead children. From this juxtaposition emerges a covert narrative of violent colonization and historical trauma. But the overt narrative communicates the resilience and continuance of the Iñupiat people. It is at the end of these two juxtaposed sequences that Fox dies and transforms into a powerful boy-spirit. The Cultural Insight "Rebirth & Naming" that follows shortly—after "Animal Spirits" which also provides context relevant to Fox's transformation—focuses on the key value of interrelatedness. Elder Ronald Aniqsuaq explains the Iñupiat understanding of life, death, and afterlife: at the moment of death *timi* (body) returns to *nuna* (the Earth); however, the spirit of *atiq*, a name that is passed down over generations, lives on for as long as the name is remembered. When the spirit returns to Siḷa, it may be reborn if the name is passed on to a new child who retains some of the memories of the original name. The name Fox is retained in both forms of the avatar (as boy-spirit and other-than-human animal) seemingly along with memories of the mechanics of the diegetic world and relations among all the inhabitants that comprise the community of Siḷa.

In *Never Alone* the narrative of colonial trauma is muted, emerging covertly though the juxtaposition of narrative sequences and, even then, within the context of Iñupiaq resilience and continuance—a context that is transmitted as the inheritance of the wisdom of the elders. This is a powerful gesture of Indigenous decolonization. The game narrative of *Never Alone* insists on the autonomous expression of traditional Iñupiaq cultural values. By its very existence, this video-game contradicts the colonial mythology of Indigenous peoples as doomed and vanishing; the voice-over narration spoken in Iñupiaq gives the lie to the extinction of traditional Indigenous orature; the expression of a traditional story in a digital medium opposes the notion that Indigenous cultures are "pre-modern." Indeed, the medium of the interactive digital narrative allows for the effective communication of Iñupiaq traditional knowledge through what, in *Look to the Mountain* (2010), Gregory Cajete calls an "ecology of indigenous education" that serves the concept of survivance. Cajete's place-based and nature-centered education is realized in the diegetic world of *Never Alone*, which is resolutely the Iñupiat world of Siḷa; learning to overcome obstacles by being fully "human" in Iñupiaq terms means learning to live with, and respect the interdependence of, everything that makes this world as it is. Cajete opposes Indigenous interrelational, holistic reality to Western European traditions of objectivism, dualism, and reductionism: to play the game in dualistic (such as human versus animal) terms is to fail to meet the challenges of the game-play and to "die." The quest for knowledge and truth in

Never Alone is collaborative, not competitive; for example, to refuse to collaborate with Fox and other beings in the game world—to play competitively—is, again, to "die." The aim of Indigenous education, according to Cajete, is wholeness, self-knowledge and wisdom; in *Never Alone* the increasing demands of the game, as the player learns to behave as a member of a virtual Iñupiat community, requires the synthesis of all that has been learned into a holistic understanding of Siḷa. This is education for decolonization, eschewing settler-colonial epistemological and ontological forms in favor of the performance of inherited Indigenous values that evidence the ongoing sovereignty of Indigenous communities.

Conclusion: The Mechanics of Survivance

While they are very different kinds of video-games, both *Never Alone* and *Invaders* constitute creative acts of Indigenous "representational sovereignty": "a declaration that the Native is self-defining, producing an 'autovision' and 'autohistory' in the face of Amer-European heterohistory… It reverses assimilation and dispels the myths of conquest and dominance. It aspires to participate in the healing of grief and sense of exile" (Weaver 163-4). At the end of *Never Alone*, while gliding around Nuna's seated figure, the player hears the narrator's voice-over:

> The Fox said to the girl,
> "If you ever need to find your way home again,
> just look up for me."
> and [sic] floated up through the night sky.
> I have heard Nasruk tell the story that way.

The game's teaching is that of the traditional story, a story told and retold down through the generations and now told powerfully in an interactive digital form that replicates the primary principles and processes of traditional Iñupiaq values. Siḷa is the diegetic world of the game and the world of the Iñupiat people; to succeed in the game the player must learn to live in a proper relationship with Siḷa. This is possible by learning to adopt a virtual Iñupiaq subject position within the game narrative. This learning process is managed by the player's responses to the constraints imposed and possibilities afforded by the game mechanics, which are determined by Iñupiaq traditional knowledge. Player-avatars who do not adapt to the rules of the Iñupiat diegetic world simply "die." Amy Fredeen, one of the Iñupiaq cultural ambassadors who

contributed to both the game development and also the narration of the Cultural Insights, explains that "[a]daptation has been a cornerstone of survival for Alaska Native People… *Never Alone* is another way We can share Our values and culture with future generations and the world [by p]assing on wisdom and values… Bringing our traditional wisdom to a modern world that has changed the path of Our People forever" (qtd O'Connell n.pag.).

The game mechanics of *Never Alone* provide for the possibility of success on the part of the player; this potential is foreclosed by the mechanics of *Invaders*. Yet in both games resolution is achieved progressively and performatively as the player learns the consequences of possible actions for the state of the gameplay. In *Never Alone* "death" is the consequence of actions that are not consistent with the Iñupiaq values that inform the game mechanics; success is a measure of the player's adaptation to the values of Iñupiaq survivance. The conditions for ending the game in *Never Alone* are made clear; with the defeat of Manslayer, the final "boss," and the ending of the blizzard the game concludes. Effectively, we come to the end of the sequence of side-scrolling screens—although the narrator reminds us that the story endures. *Invaders* both continually ends and never ends: the historical narrative constructed by Steven Paul Judd's juxtaposition of iconic figures and informed by Trevino Brings Plenty's musical score underlines not only the continuous present of settler-colonialism but the sustained survivance that, as in *Never Alone*, ensures that the story does not really end. The nature of player-interactivity in these games, determined by the constraints and possibilities imposed by the Indigenously-driven game mechanics, requires that the games be played from Indigenous epistemological positions.[10]

Fundamental to these epistemologies is survivance, performed in the games as a right to inherit Indigenous stories, histories, and cultural lifeways while dramatizing the point made powerfully by Amy Fredeen in the Cultural Insight, "A Living People: A Living Culture": "One of the things I think a lot of people need to understand is we aren't a museum piece. The Iñupiat people are a living people, and a living culture." Fredeen's point is developed by Elizabeth LaPensée in the specific context of survivance and video-games: "survivance refers to recognizing Indigenous communities as thriving rather than merely surviving. An act of survivance is a work that arises from the practice of survivance, meaning an 'active sense of native presence.' Games, which are made of varying levels of code, design, art, and audio, can provide spaces for expressing self-determination so long as, within the context of Indigenous art,

they stand 'against colonial erasure… [and mark] the space of a returned and enduring presence'" ("Games as Enduring Presence" 180). LaPensée's emphasis here on Indigenous presence is realized in the games she designs through the creation of mechanics that prescribe player interactivity as the performance of survivance. In Indigenously-determined video-games, like *Invaders* and *Never Alone*, indigeneity is present in the artwork, music, and storytelling that work to thematize game mechanics that require the respectful adoption of Native presence as the player's subject position.

By resisting "colonial erasure" with sovereign Native presence, these games function as digital weapons in what Vizenor has called the "word wars": the multifaceted discursive battle for control over the meaning of the actual events of colonization. In *Wordarrows* (1978) he describes how the "arrowmakers and wordmakers survive the word wars with sacred memories" (viii).[11] In the conflict between "white" words and tribal memory what is at stake is the inheritance of Indigenous stories that express ownership of or belonging to the land and living tribal traditions. In very different game genres, *Never Alone* and *Invaders* oppose ongoing settler-colonial attempts to eliminate traditional systems of culture and identity in favor of assimilation to imposed settler-colonial discourses. Indigenously-determined games are discursive weapons in the struggle to defeat colonial stereotypes and simulations of "the Indian" by dispatching (literally in *Invaders*) "word arrows" to engage the continual onslaught of settler-colonialism. "The heritable right of succession" is asserted in *Invaders* as the inheritance of histories of resistance and, even more importantly, the Indigenous values that motivate resistance to victimry and promote the integrity of enduring tribal nations. The "Cultural Insights" of *Never Alone* bring into the game-world inherited wisdom in the form of information and advice that has been passed down by elders and ancestors, and in this way the game performs "the heritable right of succession" that motivates survivance. Both *Invaders* and *Never Alone* demonstrate the decolonizing potential of video games by performing survivance-as-resistance and survivance-as-survival as ethical actions. The mechanics of these games determine not just the "rules of the game" but crucially shape the ethical decisions that guide the ways in which a player can interact with the game-world. By controlling the potential for action, game mechanics shape what I am calling here the "axiology" of survivance. This axiology (or system of ethical action) is both the consequence of inherited tribal epistemologies and is the instantiation of inherited tribal lifeways.

Arising from inherited values, stories, and wisdom, present-moment actions become the inheritances of the future in the dynamic process that is survivance. To focus only on the terms that comprise Vizenor's neologism—"survival" and "resistance"—is to analyze at the level of action (important though that is) rather than engage with the dynamic relations between action and the deeper structure of cultural inheritance that motivates ethical acts based on inherited values. Moving beyond cultural preservation (or "surviving"), these video-games use the mechanics of game design to engage player-interactivity and create lived experiences of enduring Indigenous presence (or "thriving"). Vizenor suggests that the decolonizing power of survivance is fueled by the concept of inheritance when he describes survivance as "the heritable right of succession *or reversion of an estate*" (1, emphasis added). The reversion of an estate defines the return of property ownership to the original owner (or grantor) after a temporary period that ends with the expiry of pre-agreed conditions or an agreed period of time; "reversion" also names the right of the grantor to succeed to the reverted estate. Read in this context, survivance does much more than describe a legacy; it is a radical call to readiness for a decolonized, reverted estate in which original owners or custodians will reclaim possession of their Indigenous estate. Virtual opportunities to experience this post-colonial reversion are offered by the Indigenously-determined game-worlds of *Invaders* and *Never Alone*, through the decolonizing power of the mechanics of survivance.

Notes

[1] Vizenor's interest in the concept of inheritance can be seen in the titles of such novels as *The Trickster of Liberty: Tribal Heirs to a Wild Baronage* (1988; rpt. 2005), *The Heirs of Columbus* (1991), and *Bearheart: The Heirship Chronicles* (1990; first published as *Darkness in Saint Louis Bearheart* [1978]).

[2] See Elizabeth LaPensée, "Indigenously-Determined Games of the Future" for a discussion of Indigenously-determined games as "a path for passing on teachings, telling our stories, and expressing our ways of knowing"; "[g]ames with our people represented in our own ways, with our placenames, with our stories, with manidoo" that are constructed from technology adapted to create "game engines that comprehend our ways of knowing – game engines with Blackfoot physics, game engines with Lakota star knowledge, game engines designed from structures of ongoing non-linear storytelling" (n.pag.).

[3] See Rigby & Ryan, in particular chapter 4: "Games and the Need for Relatedness."

[4] http://survivance.org/invaders/. In the discussion that follows, I describe the game as played using a keyboard; the mechanics of the mobile versions (for iPad and iPod) use in place of the arrow keys a sliding cursor with which to move the avatar and to fire his arrows. The movement and firing take place simultaneously in the mobile versions; pressing the cursor in order to move

the avatar is the same mechanic as firing an arrow. Moving the avatar and firing an arrow are distinct mechanics in the keyboard version of the game.

[5] See Vizenor, *Wordarrows: Indians and Whites in the New Fur Trade* (1978). Reprinted as *Wordarrows: Native States of Literary Sovereignty* (2003). As noted above, this is not the case in the mobile version of the game where the mechanic for firing is different.

[6] Qtd. https://en.wikipedia.org/wiki/Space_Invaders.

[7] While Judd's choice of images—especially the photographs that are reminiscent of Edward Curtis's work—evokes the history of US settler-colonialism specifically, the historical relations proposed by his artwork in *Invaders* are relevant more generally to the logic of elimination proposed by Patrick Wolfe as characteristic of settler-colonialism.

[8] Juul further explains that "play theorist Brian Sutton-Smith has proposed that play is fundamentally a 'parody of emotional vulnerability': that through play we experience precarious emotions such as anger, fear, shock, disgust, and loneliness in transformed, masked, or hidden form" (26-7).

[9] Parts of the following analysis will appear in German translation in *Subjektivität und Fremdheit in demokratischen Gemeinschaften: Beiträge am Schnittpunkt von Literatur und Politischer Philosophie*, edited by Michael Festl and Philipp Schweighauser, Wilhelm Fink Verlag, 2018.

[10] This is not to say that all players must "play Indian" in order to engage with these games; rather, the game mechanics are determined by Indigenous epistemological principles that in turn determine the ethical possibilities for a player's actions and the outcomes in the game-world of those actions.

[11] A relation between the concept of inheritance and the "word wars" is suggested by the title of the embedded narrative—"The Heirship Chronicles: Proude Cedarfair and the Cultural Word War"—that comprises most of Vizenor's *Bearheart: The Heirship Chronicles*.

Works Cited

Brings Plenty. Trevino. "Tutorial on composing music for the game "Invaders.'" *IktomiFilms*. 21 Aug. 2015. https://www.youtube.com/watch?v=N-VB1FsYUww. Accessed 31 Oct. 2015.

Cajete, Gregory A. *Look to the Mountain: An Ecology of Indigenous Education*. Kivaki Press, 1994.

Cleveland, Robert. *Unipchaanich imagluktugmiut: Stories of the Black River People.* National Bilingual Materials Development Center, 1980.

Cook Inlet Tribal Council and E-Line Media, 2014. *Never Alone*. http://neveralonegame.com/. Accessed 7 Sept. 2016.

Corriea, Alexa Ray. "Games can preserve indigenous stories and oral histories." *Polygon*. 17 March 2014. https://www.polygon.com/2014/3/17/5520030/games-can-preserve-indigenous-stories-and-oral-histories. Accessed 15 Jan. 2016.

Hunicke, Robin, Marc LeBlanc, Robert Zubek. "MDA: A Formal Approach to Game Design and Game Research." 2001. http://www.cs.northwestern.edu/~hunicke/pubs/MDA.pdf. Accessed 10 Dec. 2014.

Invaders. Elizabeth LaPensée, designer; Steven Paul Judd, artwork; Trevino Brings Plenty, music. 2015. http://survivance.org/invaders/.

Kawagley, Angayuqaq Oscar. *A Yupiaq Worldview: A Pathway to Ecology and Spirit*. Waveland Press, 1995.

LaPensée, Elizabeth. "Games as Enduring Presence." *PUBLIC 54: Indigenous Art: New Media and the Digital*, 2016, pp. 178-186.

----. "Indigenous Game Design in *Invaders*." *Proceedings of DiGRA 2011 Conference: Think Design Play*, 2011.

----. "Indigenously-Determined Games of the Future," *kimiwan zine*, Issue 8: Indigenous Futurisms, 2014. http://www.abtec.org/blog/?p=449. Accessed 15 Jan. 2016.

LaPensée, Beth Aileen and Jason Edward Lewis. "Skins: Designing Games with First Nations Youth." *Journal of Game Design & Development Education*, vol. 1, no. 1, 2011, pp. 54-63.

LaPensée, Elizabeth & Vicki Moulder."Walking and Wiring the Land: Indigenous Art Practice in Games." *Interactions* XXIV, 1, 2017, n.pag. http://interactions.acm.org/archive/view/january-february-2017/walking-and-wiring-

the-land. Accessed 9 April 2016.

McKegney, Sam. *Magic Weapons: Aboriginal Writers Remaking Community After Residential School.* U of Manitoba P, 2007.

Martinson, Patti. "Expressing Herself In Design and Art: Elizabeth LaPensée." *Sequential Tart* vol. 16, 2017, n.pag. http://www.sequentialtart.com/article.php?id=3021. Accessed 19 Jan. 2017.

Moya-Smith, Simon. "War Paint." *Native Noise: Resilience, Pride, and Making a Noise*. http://www.rebelmusic.com/#!music/rebel-music/feature/native-noise. Accessed 11 Sept. 2016.

Murg, Wilhelm. "'Andy Warriorhol' Steven Paul Judd subverts cultural norms while making people laugh." *Oklahoma Gazette*, 25 Nov. 2015. http://okgazette.com/2015/11/25/cover-story-andy-warriorhol-steven-paul-judd-subverts-cultural-norms-while-making-people-laugh/. Accessed 9 Sept. 2016.

The NTVS. "NTVS: The Originals." www.thentvs.com/. Accessed 11 Sept. 2016.

Never Alone (Kisima Ingitchuna). Upper One Games & E-Line Media, developer; E-Line Media, publisher. 2014.

"*Never Alone*, Cultural Insights." https://www.youtube.com/watch?v=E4Iqq4_hoxk. Accessed 19 June 2015.

O'Connell, Liz. "*Never Alone*—Iñupiat storytelling with spirit." 30 Jan. 2015. http://www.scilogs.com/frontier_scientists/never-alone-game-native-culture-spirit/. Accessed 19 June 2015.

Rigby, Scott and Richard M. Ryan. *Glued to Games: How Video Games Draw Us In and Hold Us Spellbound*. Praeger, 2011.

Rogoff, Alice. "King Island: Living community and mystical place," *Alaska Dispatch News*, 1 November 2011. http://www.adn.com/commentary/article/king-island-living-community-and-mystical-place/2011/11/02/. Accessed 6 Sept. 2016.

Ross, Gyasi. "Man Crush Monday: The Audacious Genius Art of Steve Judd, Kiowa Love Machine," *Indian Country Today Media Network*, 26 May 2014. http://indiancountrytodaymedianetwork.com/2014/05/26/man-crush-monday-audacious-genius-art-steve-judd-kiowa-love-machine-155033. Accessed 11 Sept. 2016.

Rostkowski, Joëlle. "Prologue: Conversation with Gerald Vizenor." *Conversations with Remarkable Native Americans*. State U of New York P, 2012, pp. xxxvii-li.

Sapieha, Chad. "imagineNATIVE Film + Media Arts Festival explores games made by and about Indigenous peoples." *Post Arcade*. 13 October 2015. http://business.financialpost.com/fp-tech-desk/post-arcade/imaginenative-film-media-arts-festival-explores-games-made-by-and-about-indigenous-peoples. Accessed 15 Jan. 2016.

Schreiber, Ian. "Game Design Concepts." 2009. https://gamedesignconcepts.wordpress.com/. Accessed 24 June 2015.

Scimeca, Dennis. "Why *Never Alone* is so much more than a video game." 1 March 2015. http://kernelmag.dailydot.com/issue-sections/features-issue-sections/11965/never-alone-alaska-native-video-game/. Accessed 19 June 2015.

Space Invaders. Tomohiro Nishikado, designer; Taito, developer; Taito (Japan), Midway (US), publisher. 1978.

Space Invaders. "Play Guide for *Space Invaders*." http://www.classicgaming.cc/classics/space-invaders/play-guide. Accessed 9 Sept. 2016.

Space Invaders Manual. Atari 2600. Warner Communications, 1980. https://atariage.com/manual_html_page.php?SoftwareLabelID=459. Accessed 9 Sept. 2016.

Vizenor, Gerald. "Aesthetics of Survivance." *Survivance: Narratives of Native Presence*, ed. Gerald Vizenor. U of Nebraska P, 2008, pp. 1-23.

----. *Bearheart: The Heirship Chronicles*. U of Minnesota P, 1990. First published as *Darkness in Saint Louis Bearheart.* 1978.

----. *The Heirs of Columbus*. Wesleyan UP, 1991.

----. *Manifest Manners: Narratives on Postindian Survivance*. U of Nebraska P, 1999.

----. *The Trickster of Liberty: Tribal Heirs to a Wild Baronage*. U of Minnesota P, 1988.

----. *Wordarrows: Indians and Whites in the New Fur Trade* (1978). Reprinted as *Wordarrows: Native States of Literary Sovereignty*. U of Nebraska P, 2003.

Weaver, Jace. *That The People Might Live: Native American Literatures and Native American Community.* Oxford UP, 1997.

Williams, Maria Shaa Tláa, ed. *The Alaska Native Reader*. Duke UP, 2009.

Wolfe, Patrick. "Settler Colonialism and the Elimination of the Native." *Journal of Genocide Research*, vol. 8, no. 4, 2006, pp. 387-409.