Survival Interventions in *GTA*: On the Limits of Performance in Virtual Environments

Martin Zeilinger

*Senior Lecturer in Media, Anglia Ruskin University*

**Abstract**

The subject of survival in virtual environments has emerged as a potent site of critical and artistic intervention in video games. Influenced by traditions in performance art practices, in particular the critiquing of socio-political power systems through the radical, performative use of bodies, many current artists effectively use existing game platforms to address conflicts at the intersection between the individual and system. This essay explores the performative affordances of *Grand Theft Auto (GTA)* game worlds as a research tool, subject of critique, or theatrical stage. Though survival is difficult to address successfully in virtual interventions, the trope of survival as coded in game environments can be mobilized by virtual performance artists to address problematic limits and constraints dictated by the algorithmic systems framing gameplay.
Survival in the networked, late-capitalist, post-democracy anthropocene, is a difficult undertaking, and a struggle that is powerfully gendered, racially marked, and speciesist. This holds true for many virtual game worlds simulating life and death in contemporary times; the existence of death in a game world might be interpreted as indicative of its “authenticity,” yet virtual, simulated death is rarely authentic—except, perhaps, in how it perpetuates and exaggerates real-world inequities and conflicts. Regardless of how virtual death in game worlds is regarded, for player avatars and non-player characters alike it is intimately tied to both ideological and algorithmic rule systems governing their existence. Given that game worlds like those found in the virtual Grand Theft Auto (GTA) franchise localities of San Andreas and Liberty City are full of death and killing, shouldn’t there be some room—or rather, a powerful need—for a meaningful critical discourse of survival?

“Survival” is often understood as an instinctual struggle against death, closely linked to the self-preservation drives of sentient creatures. However, the concept goes significantly beyond struggles to stay alive. For example, survivalism, as a lifestyle organized around the honing of survival skills, is frequently linked to libertarian political perspectives on self-reliance and independence from—or resistance against—domineering political structures. Particularly in contemporary socio-political and cultural contexts, survival has taken on a wide variety of broader meanings: in cinema, it has become a dominant narrative trope of dystopian “battle royale” scenarios and near-future environmental disaster epics; it is a prevalent premise for reality television competitions focused on the mastery of difficult-to-attain survival skill sets, appealing to audiences fascinated with survivalist lifestyles; in video games, survival functions similarly, providing the underlying theme for horror games, or the operational logic of games foregrounding the simulation of survival struggles in open-world wilderness environments.

Overall, survival invokes a complex bundle of existential struggles, political convictions, and cultural experiences. What ties these together is that survival usually tends to indicate the opposite of “death,” regardless of whether that concept is understood in its biological, social, or political permutations. To survive is to act or exist persistently within a system, struggling against the systematic constraints and obstacles encountered. Beyond simply “staying alive,” the ongoing struggle to survive thus also serves to identify gaps and limits within systems. In other words, survival can, ideally, become a critical tool in highlighting problematic aspects that natural, political, social, or cultural systems force upon survivors.

Resisting death in virtual worlds has the potential to emerge as a key site of critical intervention in the cultural and computational logic of video games. This essay surveys a number of artistic experiments that pick up traditions of performance art, in particular the critiquing of socio-political power systems through the radical, performative use of bodies, in order to address conflicts at the intersection between the individual and system. In doing so, my aim is to explore the performative affordances of GTA game worlds specifically, and those of virtual worlds more generally. Contemporary video
games often feature sophisticated built-in content creation and capturing tools, and are among the most complex simulation environments available to artists. These manipulable game environments can serve as research tool, subject of critique, or theatrical stage. How do struggles of survival become manifest in these simulation environments? How are political problems of survival taken up within the simulated spaces of game worlds, both in response to the prompts of game mechanics and game narratives, and in explicit resistance to them? What critical purpose might the virtual performance of survival seek to adopt in broader socio-political discourses on life and death, living and dying? And finally, can performance art, with its fundamental reliance on liveness and the connection between performer and audience/participant, survive transposition into virtual environments? Though survival is difficult to address successfully in virtual interventions, the trope of survival as coded in game environments can be mobilized by virtual performance artists to address problematic limits and constraints dictated by the algorithmic systems framing gameplay.

In sketching some answers to the questions outlined above, my discussion will largely side-step game-engine-prompted survival strategies. Bracketing what might be called “survival-by-design” (such as mastering battle techniques, or avoiding accidental environmental death), the focus will be on critical invocation of survival in ways that are not anticipated by these algorithmic systems. My discussion of artistic experiments that problematize staying alive in algorithmic environments references works by Joseph DeLappe, Brent Watanabe, Jim Munroe, Clint Enns, Georgie Roxby Smith, and COLL.EO. The artworks considered pursue different strategies and aims of survival; this chosen corpus of GTA-specific game art interventions will frame a consideration of the limits of performative action in highly structured algorithmic systems, addressing how algorithmic survival in “human-occupied” virtual spaces can become the focus of a new type of virtual, non-human performance art.

The Grand Theft Auto franchise has become a popular framework for the realization of digital artworks that engage performance art traditions. Among the more well known performances is Jim Munroe’s My Trip to Liberty City, created within GTA III as part of the artist’s Pleasure Circuit Overload series, completed in 2006. This machinima piece takes the form of a short travelogue that humorously chronicles the visit of a Canadian to GTA’s fictional Liberty City. His touristic exploits there include exploring back alleys and rooftops, taking souvenir photographs, and performing a pantomime busking act on a street corner. Edited from in-game footage, the piece features a voiceover invoking casual “Let’s Play” video commentary. Posited as an implicit critical engagement with Liberty City’s notoriously violent environment, Munroe’s piece attempts to steer away from all brutality. Given the work’s emphasis on environmental exploration, enjoyment of scenery, and (attempted) non-violent interaction, it might be tempting to describe My Trip to Liberty City as a successful subversion—or “surviving”—of the game’s pro-violence prompts. This would be an incorrect interpretation, however, since the in-game footage used for the creation of the machinima was
(and could only be) created in conscious and direct relation to the violent themes and mechanics of the game, which, as Ian Bogost has pointed out, “constantly structures freeform experience in relation to criminality.”

What Munroe’s travelogue achieves instead is a foregrounding, by proxy, of the structural, systemic violence of GTA III. For example, the Canadian tourist’s visit to the hospital (made necessary after he falls into the water on the shore) narrativizes a game mechanic directly connected to the game’s life-death-spawning cycle. To give a different example, the player character’s street-busker pantomiming (which consists of the enactment of pretend-fistfights) may initially also seem like a peaceful refusal of the game’s violent tendencies. But again, the refusal is unsuccessful, better described as the reshaping of an incomplete act of aggression; the content of the busking act is a forced performance of actual virtual violence when the game engine, relentlessly focused on detecting and responding to violent action, registers the pantomiming as an actual attack on a non-player character (NPC) pedestrian. Munroe’s piece does not successfully subvert the violence encoded in GTA III, but instead, enacting a literal performance in the form of a busking act within the game space, highlights that this violence exists in the game’s computational fabric on an insurmountable, granular level. Even in acting non-violently, the artist constantly gestures towards this violence, which cannot, in fact, be negated. Here, attempted non-violent survival in Liberty City forever proceeds by provoking inevitable death.

Like My Trip to Liberty City, Georgie Roxby Smith’s GTA-based machinima performance Fair Game [Run Like a Girl] (2015) stages a struggle for survival that clashes with a hard-coded algorithmic system seeking to enforce constant violent interaction. Fair Game is strongly oriented towards performance art traditions. Described by the artist as a performative intervention, the work was created in GTA V Online, and is roughly fourteen minutes in length. For the entire duration, the artist, embodying the franchise’s prototypical male player character, pursues a female NPC on foot. The NPC screams in horror, and is chased first through the city, then through a more rural area, and finally along a busy highway. As Smith explains, her intervention seeks to critique the male chauvinism inscribed in the game at code level by amplifying it: in the narrative and computational logic of the game world, whenever a male player character “encounters” female NPCs through simulated touch (such as bumping into them), the NPCs are designed to respond initially by giving the player some “attitude,” and then to “screech and ‘run like a girl.’” This hard-coded behavior cannot be changed or counteracted by the player. It is sexist in multiple ways: the “sassy/terrified” reaction is established as normative, and many players will likely experience it as standard behavior once it has been triggered and witnessed repeatedly; additionally, the only way for the male player character not to behave in an intimidating and threatening fashion towards female NPCs is not to approach them at all, which suggests that in the game’s register of male/female encounters, nothing outside of the predatory is possible.

The hardcoded survival instinct of GTA V’s female NPCs enables Roxby Smith to performatively inhabit some of the game’s sexist (and
racist) stereotypes so that they may be re-contextualized and implicitly critiqued. Smith, who describes her work as feminist, has called this approach “teasing out societal glitches that perhaps go unnoticed in the everyday.” An important corollary to the artist’s critical role inversion here is that Smith’s insistent and disturbing foot chase is also a search for the “exit condition” of the female NPC’s hard-coded behavior: did the game designers include a computational scenario in which a female NPC can get away and “survive”? Unsurprisingly, this is not the case. The “end point” does not exist. While *Fair Game* [Run Like a Girl] feels more like a confirmation of this fact rather than a discovery, it nevertheless demonstrates quite powerfully that unless the player character “releases” their victim (an act that in itself would be a performance of a problematic power differential), there is no survival for the female NPC: at the end of Smith’s intervention, she is run over by a car. Again, it might be argued that the key subject of the artist’s performance here is not constituted by the narrative content of the piece; the body with and through which Roxby Smith’s performs is the source code substrate of *GTA V*, which systematically dictates specific (and highly problematic) modes of survival.

Another GTA-based machinima foregrounding the impossibility of eliciting specific reactions within an algorithmic system is Clint Enns’ 2011 video 747, which reenacts a 1973 Chris Burden performance of the same name (fig. 1). Where Roxby Smith shows the player character’s inability to break out of game-dictated violent interactions, Enns’ piece is based on provoking a violent response from GTA. However, the machinima performs a provocation which the game’s AI cannot understand, and the violent response is therefore never issued. In Burden’s original performance, the artist fired a handgun at a passenger plane taking off from LAX and documented the act photographically. The reenactment is staged in *GTA IV’s* Liberty City, where Enns’ player character fixes a passenger plane in the crosshairs of a shotgun (sharing the perspective with the viewer) and fires at it. Burden’s original quixotic gesture helped foment the artist’s position as a radical artist-terrorist. It simultaneously performed power and powerlessness in the face of rigid rule systems, and problematized the ways in which life under the rule of law flattens the critical difference between agency and futility to the point where it becomes difficult to distinguish between aggression and inertia. Reenacting (and mocking) art historical traditions of radical intervention, Burden provoked the rule-enforcing legal apparatus: shooting at flying planes is a crime virtually anywhere in the world. At the same time, he safely remained in a speculative domain, since his action failed to yield any “results” beyond unverifiable photographic documentation. As Daniel Cottom has noted, Burden’s pistol is pointed critically at the concept of performance art itself, and at the simulacrum of “high art.”

In Enns’ piece, the shotgun that has replaced Burden’s pistol is additionally pointed at the algorithmic regime that enforces the rule system to which Liberty City adheres. While this regime appears to strive for realism, designed to punish violations of its order often with the player character’s death, it simply cannot recognize Enns’ intervention. The aggressive act of shoot-
ing at the plane remains unacknowledged and un-reified; it is not followed by the expected violent response. Following from the way in which audiences and critics have doubted that Burden’s intervention was “real,” one might ask about the meaning of Enns’ in-game gesture in relation to the algorithmic system at which it takes aim. The system cannot recognize it, and it fails to trigger in-game reification-through-violent-death. Does this mean that algorithmic logic is outsmarted through the performance of a gesture that cannot be meaningfully interpreted, and if so, is this a successful virtual survival tactic? Enns has suggested that he is hesitant to characterize his version of 747 as a performance work.7 I would propose that such a description is at least a fitting approximation: use of an avatar that serves as a surrogate for the artist represents a strong dramatic stance and gestures towards an embodied performance with all its requisite associations. In this sense, it is important to consider Enns’ 747 as a performance work because it points to the potentially limited operability of performance art concepts as part of critical interventions staged in highly structured algorithmic game environments which, by design, will only permit predetermined sets of interactions.

Like Enns’ machinima adaptation of Burden’s 747, COLL.EO’s Liberty City Crawl series (2017) restages performance art within a virtual environment to explore the extent to which subversive action can provoke (or fail to provoke) specific responses. In doing so, this work specifically foregrounds a convergence of ideology and computational logic encoded in NPC behavior.8 Colleen Flaherty and Matteo Bittanti, the media artists behind COLL.EO, created their recent series Liberty City Crawl to reenact seminal performance pieces by William Pope.L in GTA IV. The series extends Roxby Smith’s attention to gender to an exploration of the critical positions a player character might take vis-à-vis systemic racism. The original performances, in which William Pope.L crawled through parts of New York City without contextualizing his activity as “art” or “performance,” were celebrated for the unsparing immediacy with which they allowed the artist to face off with inequalities and racism of contemporary NYC. COLL.EO’s reenactments—in which an avatar of William Pope.L replays his performances Tompkins Square Crawl (1991) and The Great White Way (2002) in GTA IV’s virtual version/parody of New York, Liberty City—clearly invoke these sentiments, but it is somewhat uncertain what they achieve beyond the translation of William Pope.L’s gesture into a different medium. Ultimately, this translation represents a modal shift that inevitably recedes from the original’s radical performative stance. The reactions that Liberty City Crawl manages to elicit from the virtual environment are a far cry from the shock and anger triggered by William Pope.L’s performance work, and registers more as bafflement or indifference.9 As in Enns’ version of 747, here, too, the GTA game world cannot be provoked to elicit an adequate response to the intervention, since the recontextualized crawl remains illegible to its responsive environment and the NPCs that inhabit it. And again, this begs the question of what kinds of performance interventions virtual environments are useful for.

If the impact and effectiveness of performance work carried out in virtual spaces is inevitably re-
stricted by the algorithmic constitution and rule system within which it occurs, should it have to be concluded that the performative gesture itself cannot survive transposition into virtual environments? What the artworks discussed so far share is that they force viewers to recognize the cultural logic of the “real world” in the complex, AI-driven simulations of the GTA game worlds, but also that these algorithmic environments are rarely designed to facilitate critiques of this cultural logic. When the NPCs of Liberty City remain indifferent to the simulation of a black man crawling through violence-ridden virtual urban space, this is decidedly different from the indifference William Pope.Ł faced in his IRL performances. The pieces under discussion serve to foreground the cultural logic as it is reflected in the code systems of virtual game worlds, but it is not so clear how effectively they can critique or even challenge it. Put differently, the artworks discussed draw our attention to a struggle with the limits of performativity in simulated environments. When neither a critique nor its recipients are “embodied,” when an intervention is performed for an algorithmic system that cannot perceive it, or when the (simulated) action is entirely contingent upon a horizon of possibility and parameters of permission that are prescribed by the game logic, then one might wonder what meaningful critical element typically associated with performance art can remain. Can we adapt a familiar Internet adage and state that “In Grand Theft Auto, nobody knows you’re a performance artist”?

One answer to this problem is that when artists begin to perform in and through embodied, simulated characters in virtual environments, we must reconsider both the object and the subject of the resulting performative act. In a brief discussion of two further GTA-based artworks, Brent Watanabe’s San Andreas Deer Cam (2016) and Joseph DeLappe’s Elegy: GTA USA Gun Homicides (2018), I want to conclude by asking whether (and how) virtual performance work can overcome the aforementioned challenges to recuperate some of the critical valence of performance in virtual environments. Watanabe’s San Andreas Deer Cam was conceived as a realtime, long-term video broadcast based on a custom GTA V mod in which the player-controlled protagonist is replaced by a virtual automaton taking the form of a quasi-autonomous deer freely roaming San Andreas.10 Watanabe designed the deer to respond fairly realistically to its environment, with the important exception that it appears to be immortal: the deer might have run-ins with gang members, be mowed down by highway traffic, get involved in police chases, witness a variety of NPC interactions, arrive at random picturesque locations, topple off cliffs, or get stuck in the landscape. Throughout all these encounters, the deer appears to exhibit basic instinctual behaviors—such as fleeing from harm—while overall displaying a profound disinterestedness in its surroundings. Over the course of the artwork’s broadcast, the game world’s responses to the deer’s presence often took the form of a hysterical frenzy of violent pursuit or panicked evasion; however, San Andreas could not touch it and its uncanny survival skills.

In its original iteration, San Andreas Deer Cam was generated in realtime in the game engine and live-streamed on Twitch.11 This meant that the deer “lived” in a continuous, persistent time-
frame that preceded any viewing of the broadcast, and continued beyond it. The deer thus existed not only in a strange narrative disregard for the virtual environment it inhabited, but also as detached from the material world for which it appeared to perform its continued survival. These characteristics are noteworthy because they facilitated the emergence of San Andreas Deer Cam as what might be considered a new type of algorithmically determined performance art. In 2016, Watanabe’s San Andreas Deer Cam was shown at the Toronto-based Vector Festival. The work was included in the festival flagship exhibition at InterAccess Gallery, where it showed in a black-box setup on a wall-mounted monitor, as well as in a large-scale off-site screening on two massive, 30-foot LED screens in suburban Mississauga’s Celebration Square (fig. 2). The screening took place on a mid-July weeknight, with a large audience of mostly unsuspecting members of the public holding picnics, playing in the fountains, practicing parkour routines, throwing footballs, and racing along on scooters. The screening began before darkness fell, so the massive screens were framed by the towering silhouettes of central Mississauga’s faceless condominium towers. On the massive screens, the deer roamed San Andreas beyond the reach of players and NPCs alike, enacting feats no player could ever hope to achieve within the time and space constraints normally imposed by the game engine. While some in the audience may have

Figure 2. Brent Watanabe, San Andreas Deer Cam, 2016. Image courtesy of the artist and InterAccess Gallery in Toronto.
been uncertain whether or not the deer was controlled, its actions performed by a human player, it seemed clear that the real performance consisted of the deer’s quasi-autonomous interpolation of a resistance to the algorithmically enforced violence and the constant cycle of virtual dying that characterizes GTA. While the game footage was still violent in its depiction of countless attacks on the deer, death remained conspicuously absent. Even to viewers unfamiliar with GTA, it was clear that the algorithmic substrate framing the deer’s activities, as well as the performance’s human audiences, remained incapable of making logical sense of its presence. The perceived liveness and realtime-ness of the roaming deer functioned both as an extension and as an incarnation of its inviolate survival skills. In the context of the public event, San Andreas Deer Cam ultimately provided an immersiveness and immediacy approximating an experience traditionally associated with performance art.

On a final note, Joseph DeLappe’s recently completed Elegy: GTA USA Gun Homicides (2018) offers a good example of this kind of immersive performance art experience. Created in collaboration with Albert Edwin (coding) and James Wood (consultant), DeLappe’s piece is designed to stream on Twitch, and is conceived as a critical data visualization tool that transposes statistical data on US gun violence into the virtual environment of Grand Theft Auto. Like San Andreas Deer Cam, the real-time GTA machinima Elegy critically reworks established performance art conventions against the backdrop of explicitly visualizing violence and survival data. Restarting at midnight every day and set to run for a full year until July 4, 2019, DeLappe’s mod shows a first-person view of the GTA V game world, with the viewer’s vantage point tracking backwards slowly through the streetscapes of the game environment. What unfolds on the screen, day by day, is the killing of NPCs at the hands of an unseen shooter who appears to share the viewer’s approximate position in the game space. The number of daily shootings of NPC inhabitants corresponds to daily updated statistics on US gun-related deaths.

Importantly, viewers cannot interfere with the action, nor can they escape the gruesome spectacle. Viewers are forced to inhabit the video game first-person perspective generally associated with the ability to assume agency, controlling interactions in the game world. In Elegy, this ability is removed at code level, forcing the viewer to witness these mass shootings. Like San Andreas Deer Cam, Elegy plays itself, a key aspect of the piece that is further reinforced in the daily repetition of the mass shootings occurring across the US every year. I would argue that this fact—that the artwork plays itself and is repetitive—is among Elegy’s most powerful aspects. While Elegy is disturbing even if seen simply as a visualization of raw, statistical data, contextualized in a video game frequently invoked in discussions of violent, and supposedly violence-inducing, games, it is in the artwork’s self-playing and repetitive nature that its critique fully unfolds. In Elegy, gun violence is experienced as inescapable and unpreventable. Like the first-person perspective assumed by the viewer, the seeming inescapability is algorithmically enforced, building on pre-existing affordances of the GTA game world—namely its ability to enforce violent behavior. Elegy thus achieves more than merely
visceral, immersive visualization of statistical data. The deadly algorithmic system designed by the artist should be read as a complex, extended analogy critiquing the very rule systems that enable gun violence in the real world—laws and policies put in place to ensure that guns can be bought, traded, concealed, and used. Like the algorithmic system of *Elegy*, these laws and policies can (but should not!) be experienced as insurmountable and inviolable, an insight made powerfully clear in DeLappe’s piece. Because its computational logic executes shocking and undesirable events without allowing for human interference and agency, *Elegy* functions brilliantly as a contemporary piece of performance art that challenges preconceived assumptions regarding our ability to survive gun violence in the US.

As I suggested above, “embodied” virtual performances that are enacted by human performers for algorithmic environments can be problematic because they generally cannot transgress the computational rule systems functioning as their frame and stage. In the artworks I discussed, such embodied performances appear successful only insofar as they critically emphasize and foreground this limitation, effectively addressing the futility of certain attempts at communicative, critical human-computer interaction. By contrast, the focus of *San Andreas Deer Cam* and *Elegy* is not simply to simulate a human-controlled intervention in the violent simulated environment of *GTA*. Instead, non-human agents here act autonomously to engender algorithmic behaviors which fork and deviate from established expectations in unexpected ways. In *San Andreas Deer Cam*, this serves to frame a meditation on algorithmic agency and survival that defies the personal experiences of player-audiences. The seeming alive-ness of the deer, paired with the unusual live-ness of the
artwork itself, allows for a powerful performative quality to reemerge. In *Elegy*, the self-playing nature of the artwork forms an analogy to what is sometimes perceived as the “inevitability” of real-world gun violence, which is, in truth, a function of human-designed legal rule systems and policy conventions that enable gun violence in the first place. As *Elegy* powerfully reminds us, the lack of agency we as individuals experience in the face of rampant gun violence, expressed here through the seemingly inviolable algorithmic agency of DeLappe’s mod, is not at all inevitable.

I would argue that works such as *San Andreas Deer Cam* and *Elegy*, because they deviate so strongly from preconceived assumptions regarding the conventionally embodied and live nature of performance art, constitute a new type of virtual performance art. Thanks to their focus both on survival in “hostile” virtual environments and their exploration of algorithmically driven, quasi-autonomous virtual interactions, the traditionally embodied nature and liveliness of the performance work has extended to the (re-)coding of an algorithmic matrix that serves to not only render a representation of the “performer” (the simulated deer, the simulated shooter), but also bring the virtual performer to life. In this sense, the cultural and computational logic within which *GTA* operates becomes both object and subject of artworks that thematize survival as such while also rethinking the conceptual survival of performance in virtual environments. If the computational environment of a game world restricts or makes impossible effective critical intervention, as suggested with regard to some of the examples discussed in this essay, then virtual intervention may have to expand traditional parameters of performance to include disruption of the algorithmic logic of the performance environment itself. The protagonists of Watanabe’s *San Andreas Deer Cam* and DeLappe’s *Elegy*—deer and invisible shooter—become new kinds of performers: by encoding novel and unforeseeable interactions within virtual environments, these virtual performers help us reconsider virtual survival and the virtual violence as well as conventional assumptions regarding “embodiment” in performance art. What we can glean from these new kinds of performance works is that in algorithmic contexts, “survival” must not be approached as an achievement (to use the conventional terminology of gamification), but rather as a kind of chronic condition, evident both in the stoicism with which Brent Watanabe’s wandering deer endures the violence inflicted upon it, and in Joseph DeLappe’s NPCs who endlessly respawn only to be shot to death again.
Bio
Martin Zeilinger, PhD, Senior Lecturer in Media at Anglia Ruskin University, is a new media and digital culture researcher, practitioner, and curator based in London/UK. Martin’s work revolves around the experimental use of digital technology in contemporary art-making, with a particular focus on intellectual property issues, generative art, and artistic critiques of emerging financial technologies. Since 2013, he has been co-curator of the Toronto-based Vector Festival, showcasing the use of video game technologies in experimental media art. Martin’s research has been widely published in books and journals including Artists Re:Thinking the Blockchain, MoneyLab Reader 2, Philosophy & Technology, and Computer Music Journal, and he is co-editor of a forthcoming special issue of Media Theory titled “Rethinking Affordance.” He is currently completing a monograph on the concept of artistic practices of appropriation in digital contexts. // @mrtnzlngr / http://marjz.net/ / http://vectorfestival.org/
Notes

5. Smith, Fair Game.
7. Email correspondence with the author, March 7, 2018.
8. See, for example, their series The Fregoli Delusions, a machinima video installation that trains its attention on the NPCs of Forza Motorsports 2 (https://vimeo.com/153661614). Non-narrative racing games rely on NPCs for their simulations of realistic game environments. However, little attention seems to be paid to designing NPC behavior. The Fregoli Delusions focuses on “the behaviours of algorithmic beings that are never meant to be observed,” and shows us that “they seem plagued with an existential boredom, their legs twitching impatiently when they sit down, the trajectories of their short strolls [caught] in endless repetitive circles.” See Martin Zeilinger and Skot Deeming, “Rendered Visible: Exploring the Limits of Algorithmic Agency,” curatorial essay, Vector Festival 2016, July 14-17, 2016, https://www.academia.edu/28331116/Rendered_Visible_Exploring_the_Limits_of_Algorithmic_Agency.
9. Among many other incidents and troublesome encounters, William Pope.L was famously arrested when an African-American pedestrian complained about the artist’s improper behavior to a police officer (and insisted on his complaint even when the artist attempted to explain). In Liberty City, no such response could occur.
12. I was co-curator of the events with Skot Deeming. See vectorfestival.org, and the Vector Festival 2016 curatorial essay cited in note 8: Zeilinger and Deeming, “Rendered Visible.”
13. Celebration Square is a large, well-used public space in Mississauga, one of Toronto’s most populous suburbs. Information about Celebration Square can be found at https://culture.mississauga.ca/celebration-square.