Policing the Sandbox in *Grand Theft Auto Online*

Matthew Thomas Payne and Michael Fleisch

I. Lines in the Sandbox

Rockstar Games' *Grand Theft Auto V* (2013) broke a number of records following its September 17, 2013, release: it was the best-selling video game in a 24-hour period; its trailer was viewed more times than any other action-adventure game; and – perhaps most impressively – it eclipsed the $1 billion mark in three days, making it the fastest selling entertainment product ever.[1] Yet a good deal of the excitement for this latest installment in Rockstar's long-running and critically acclaimed parodic crime franchise was for an element that was absent during its initial launch. The debut of its greatly anticipated multiplayer mode, *GTA Online* (*GTAO*), on October 1st was marred by a series of glitches that required a few weeks and a few patches to remedy, a situation Rockstar tried to ameliorate by gifting all of its users $500k in virtual cash (aka GTA$). Once the mode was functional, it allowed users to play together in and around the vast, fictional city of Los Santos, San Andreas (think Los Angeles and southern California). Estimated at roughly

100 square miles, *GTA V* is the largest sandbox-style world Rockstar has ever developed.[2]

In *GTAO*'s virtual playground, players compete in structured multiplayer contests and have the option to rob convenience stores, get in shootouts with cops, harass one another, or explore the urban and rural terrain, waterways, and skies. As players level up, they unlock items that can be purchased with cash winnings, including high-end real estate, exotic vehicles, avatar costumes, and weapons.[3] Some of these upgrades are cosmetic in nature, while others give players a competitive edge in the multiplayer contests. Rockstar has promised to extend the game's longevity by making additional missions available for *GTA V*'s single-player campaign as well as more cooperative activities (such as heists) for *GTAO* as downloadable content in 2014.

Yet perhaps *GTAO*'s most forward thinking feature for ensuring a long tail of online playability is its Content Creator. By pairing its vast virtual terrain with an editing tool for creating multiplayer activities (currently limited to races and deathmatches), users are invited to reimagine how a singular gamespace might host infinite play possibilities. To extend the game's imperfect generic metaphor, *GTAO*'s Content Creator lets players build their own sandcastles in this most expansive of sandboxes. Moreover, Rockstar has begun publishing select creations across console platforms (Xbox 360 and PlayStation 3), and have rewarded these users with in-game accolades and virtual cash.[4] These Rockstar Verified levels give gamers additional reasons to return to Los Santos, whether it is to see their efforts sanctioned and shared by the developer, or to simply experience new adventures concocted by the gaming community.

But all is not well in beautiful Los Santos. In mid-December 2013, hackers began circulating an exploit via reddit and other sites that allowed players to give their characters near-infinite amounts of in-game cash and experience points. In a crime game that celebrates ill-gotten gains, this turn of events struck many as ironically apropos, a joke that was likely lost on Rockstar Games and their parent company Take-Two Interactive. This unauthorized loot spread quickly as players gifted ridiculous sums to one another directly, and through indirect means such as placing large bounties on other gamers' heads (a legal practice in *GTAO*'s free play mode). The introduction of the

counterfeit GTA$ into the economy effectively wrecked the tiered leveling and reward systems, simultaneously nullifying the appeal of the game's micro-transaction system that allows the purchasing of in-game cash using worldly currency. One can appreciate how such a massive breach of the multiplayer economy would undermine the game's business model, and why Rockstar responded so swiftly to this violation.

The remaking of the gamespace by player-editors and the battle over its economy reveal two of ludic capitalism's historical tensions: romanticism and cybernetics. According to Alexander Galloway, our contemporary play economy features the dialectical forces of human creativity on the one hand, and computational control enabled by interconnected ecosystems of information on the other.[5] Galloway notes:

> "Romanticism and cybernetic systems theory: play today is a synthesis of these two influences. If the emblematic profession for the former is poetry, the latter is design. The one is expressive, consummated in an instant; the other is iterative, extending in all directions. The two became inextricably fused during the second half of the twentieth century, subsumed within the contemporary concept of play."[6]

Thus, the fusing of *GTA*'s highly monitored, rule-based gamespace (cybernetics) with its Content Creator (romanticism) produces opportunities for controlled creativity that, in turn, serve as engines of symbolic gaming capital for players and a means of financially capitalizing on the fan base's play practices.

Reworking cultural theorist Pierre Bourdieu's "cultural capital" for the world of gaming, media scholar Mia Consalvo's "gaming capital" describes the multifarious and multidimensional knowledges and competencies that are shared and showcased in peer-to-peer interactions (online and offline) and through gameplay.[7] The more knowledgeable one becomes about a game and its community of practice, the greater their potential gaming capital becomes. But not all literacies are valued equally by all constituencies. For example, Rockstar press releases may lionize the creator of a Rockstar Verified map, just as the online community might elevate a skilled exploit hunter who trades in game-breaking information. Again Galloway: "Today's ludic

capitalist is therefore the consummate poet-designer, forever coaxing new value out of raw, systemic inter-actions…And all the rest has changed to follow the same rubric: labor itself is now play, just as play becomes more and more laborious."[8] The amateur level designer and the game hacker are both, in effect, ludic capitalists. Yet their skillsets are held in different esteem because of their capacity to either reify or challenge Rockstar's ability to monetize crowdsourced labor.

Ultimately, gaming capital and ludic capitalism are generative concepts for thinking about what information is valued by a community of gamers, how such information attains its value, and under what conditions users can leverage that embedded form of social know-how for other ends. Of course, and as Consalvo rightly recognizes, commercial firms work furiously to profit from trading in information that gamers value. Or, as in the case of *GTAO*, a company may create an editing and distribution platform whereby enthusiastic gamers can share their creativity with others; a decision that comes with its share of economic benefits and liabilities.

Keeping Galloway and Consalvo's insights in mind, we see *GTAO*'s Content Creator and Rockstar's response to its exploited in-game economy as two sides of the same proverbial (bit)coin regarding the creation and policing of gaming capital. That is, one form of authorized fan labor adds long-term playability to the title, while another form of unauthorized boundary exploration limits the producers' ability to extract additional financial capital from online gameplay. Yet these two points are explored in turn because they reveal the dialectical tensions that exist in the nebulous spaces between *Grand Theft Auto*'s virtual and commercial playgrounds, between what we understand as play and labor, and the battles between users and producers over how gaming capital might be produced and policed; or, those playful traits that make for a "good" ludic capitalist versus those that do not.[9]

II. Crowdsourcing Sandcastles

A little over two weeks after the initial deathmatch and race creators were introduced to *GTAO*, Rockstar announced that its busy fan base had created over 1 million different maps. At the end of December, the company published its first round of Rockstar Verified maps. As the name implies,

these 10 user-created offerings (6 races and 4 deathmatch maps) were selected, vetted, lightly edited, and certified by the firm's designers. Then, less than a month later, Rockstar published its second round of user-created maps following a promotional contest that rewarded the creators of the selected levels with vanity license plates for their online cars (e.g., CRE8R, TOPCRE8R, NO1CRE8R), and 1 million GTA$.[10]

"Jumps, Jumps, Jumps," one of the levels from the initial round of Rockstar Verified maps, has been especially popular. This alliterative map features a mostly straight section of highway that has been modified to include a series of ramps. As one might imagine, these ramps inject a good deal of airborne hilarity into the online drag race. "Jumps" is currently the most popular Rockstar Verified map, having been played nearly 4 million times (at the time of this essay's writing), more than some of the game's initial producer-authored offerings. *Grand Theft Auto* is a series that is known for its dark, biting satire. Yet, because *GTAO* is a largely story-less affair, it depends on a dynamic physics engine, the varied landscape, character customization, and the collective ingenuity of its player community to add levity to its online matches.[11]

Figure 1: Airborne cars in "Jumps, Jumps, Jumps".

Unapologetically absurd, "Jumps" taps into the franchise's hallmark humor by pitting as many as 16 players against one another along a narrow stretch

of highway featuring bottlenecks, leapfrogging, and violent mid-air collisions. The split-second and capricious decisions of too many players vying for too little highway generate cascading chain reactions that foil many players' best-laid plans. The sprinting, gravity-defying vehicles on this user-created map call to mind multiplayer racing games like *Excitebike* (1985, NES), or more recently the 2.5D physics platformer *Trials Evolution* (2012, Xbox 360), which allowed users to craft original tracks for an online multiplayer experience. But if a single user-created map can pay homage to (and build upon) an entire sub-genre of racing games, then *GTAO*'s Content Creator is poised to facilitate many more kinds of creative activities. However, "Jumps" is more than a spiritual successor to previous racing games; it is an inspired example of collaborative subversion and the creative partitioning and modding of a miniscule piece of a vast real estate. "Jumps" is a community-produced (but nevertheless Rockstar sanctioned) joke where all involved can laugh at the collective design and gameplay lunacy of airborne roadsters.

Of course, nothing greases the racing wheels of capitalism quite like competition, a fact not lost on the Rockstar marketing team. A March 15, 2014, press release announcing the latest batch of Rockstar Verified creations expanded the contested *GTAO* sandbox space to include the use of the Content Creator itself.[12] By initiating a competitive discourse around the creation and selection of new gamespaces, including identifying certain creators as "power users," Rockstar has instantiated a meta-competition about redevelopment, effectively transforming a gamespace into a space game.[13] Rockstar's calculated promotion of Los Santos's ludic terraforming has the potential to accelerate the proliferation of user-created maps even as it draws attention to the firm's strategy for transforming play and experimentation into labor. Here we see Galloway's romanticism-cybernetics dialectic in dynamic tension: there is the collective desire on behalf of the gaming community for creating new adventures (for them by them), even as Rockstar exploits the crowdsourced creation of value for *GTA V* by meta-gamifying these participatory practices. Unlike physical real estate, Los Santos's virtuality is an inexhaustible resource that functions as a wellspring of creative land development and redevelopment.

III. Policing the $andbox

A month before *GTA V*'s release, Rockstar treated gamers to a lavish teaser video that presumably represented the types of experiences awaiting them in the game's multiplayer setting.[1415] For a host of technical reasons -- overwhelmed servers, bugs and glitches, balance issues, progress loss, etc. -- early user experiences did not match expectations. Furthermore, a counterintuitive matching system made for long nights of shared frustrations of gamers stuck in chat, staring at loading screens. What little gaming took place hinted that much of the advertised in-game content would require months of dedicated play to achieve.

Figure 2: GTA Online teaser trailer.

As complaints reached a fever pitch, Rockstar announced that all gamers who partook in *GTA Online* in the month of October would receive 500k of GTA$ as an apology (roughly equivalent to $10 US).[16] Though some expressed concern about inflationary pressures, and others indignation that Rockstar apparently did not significantly value gamers' wasted time, the announcement was typically met with relief. Excited about becoming big spenders in Los Santos, the GTA community prepared for the monetary influx by creating and sharing hypothetical budgets. In the case of tight developer economic control, which Rockstar initially enjoyed, this universal and sanctioned manipulation was intended to raise all boats equally, leaving in-game retail prices unchanged. Rockstar also continued in-game monetary

rewards for "good behavior," and threatened banishment to the bad sport pool for repeated "bad behavior," defined as dropping from matches or repeatedly destroying other players' property. This particularly caused confusion and consternation for some players, who found themselves wondering just what they were *supposed* to do in *GTA Online*.

Meanwhile, some dedicated gamers were beginning to poke holes in the playground's economic fabric, discovering missions and races that could quickly be replayed for rewards disproportionate to the time and effort invested. Rockstar eradicated these instances by lowering all event payouts and applying a diminishing return algorithm to replays, claiming a desire to encourage exploration over grinding; this was met with complaints about the paucity and sameness of missions. Other gamers then devised more sophisticated means for gaining monetary advantage by incorporating a range of techniques with varying complexity and efficiency, from simple pause menu actions that allowed vehicles to be infinitely resold, to DNS exploits that hacked the game's connection to Rockstar servers and allowed for user control over rank and GTA$. Suddenly the wealthiest residents of Los Santos were no longer millionaires, but *trillionaires*, spending and (more insidiously) spreading their wealth indiscriminately.

But what does all this extra GTA$ afford one, exactly? What are you missing out on if you have not benefitted from these unauthorized funds? More interestingly, what are you *not* missing out on? In a traditional free market, an influx of purchasing power acts as an inflationary force on prices. However, throughout its brief history *GTAO* has maintained its initial price list. The game's purchasable items -- the Truffade Adders, assault rifle upgrades, and leather pants -- didn't cost more GTA$ once an enormous amount of illegitimate money entered the system. However, social rank and competitive advantage are a different story.

Let us examine the title's core promise: (illegitimate) car possession. In *GTAO* race mode, gamers may choose any base models of a vehicle within a preselected class, although ownership grants considerable benefits. Spending GTA$ to first buy a garage, then a car, opens up a deep system of upgrades that spark personalized attachment. Given the variety of available racetracks and the statistical strengths and weaknesses (and aesthetics) of purchasable vehicles, there is no clear relationship between a car's performance and its

cost. Forums continue to host arguments over which vehicles provide the best bang for the buck, as car selection is as much about the conspicuous display of rare and expensive items as the statistical functionality of the vehicle. *GTAO*'s economy and its expansive retail offerings function as, what Jean François Lyotard calls, a "libidinal economy" that wields an affective hold over players; even in a play economy, financial exchanges are often deeply personal.[17] Still, ownership and customization can frequently mean the difference between winning and losing, to say nothing of one's potential attachment to their customized fleet of 2- and 4-wheelers.

When the in-game economy was compromised, GTA$ lost utility-power in the context of other *GTAO* players. The formerly proud owner of an upgraded, mid-tier vehicle suddenly found himself or herself outclassed at the starting line by an array of decked-out exotic sports cars with custom musical horns, paint jobs, and turbo systems. A car that may have previously raced competitively and boasted an unusual feature set became relatively shabby overnight. While this hampers one's long-term ability to accrue future earnings and Reputation Points, in terms of GTA$, differentiation and competitive advantage immediately became very expensive.

In January, Rockstar emailed players referencing a new "cheater pool," followed by an extended "maintenance period," during which all GTA$ not created by Rockstar-sanctioned mechanisms was eliminated. Cheating players were notified that they would be permanently banished. From the developer's viewpoint, although a relatively small number of gamers had violated the economy, the massive sharing of in-game GTA$ and knowledge (via social media and online forums) threatened the very game itself.

What exactly are these police protecting? Estimates have pegged Rockstar's potential take from the in-game microtransactions that grant instant elite status at upwards of $100M per year.[18] Yet Rockstar's actions have not restored absolute purchasing power, since none was lost; rather, they confirm that high-end items were not intended for everybody, only elite players and payers, and that the game is one of self-interested advancement. In other words, the *GTAO* economy, by design and by enforcement, privileges the individual impulse to advance relative to other gamers over other possible ludic options (including the boundary play that finds exploits in the economy and freely invents new magic circles in the Content Creator).

Furthermore, Rockstar's aptly-named "maintenance period" served primarily to re-establish a normative distribution of in-game wealth and social power, as well as to reassert its authoritative status as the invisible and inviolable hand of the market.

IV. Gaming Capitol vs. Gaming Capital

In *Video Game Spaces*, Michael Nitsche builds on the idea of the cognitive map to argue that a "story map" is the experiential result of a game's spatial design and its narrative elements. He notes:

> "It is up to the designers of the video game space to deliver the evocative narrative elements that support the construction of the story map in such a way that the reading allows for a meaningful interpretation. It is part of the player's 'work' to deliver the comprehension of the game universe and to act upon it. In contrast to the cognitive map generated primarily for orientation, a story map aims not at an accurate understanding of Euclidian space but of spatialized drama and its setting; it combines navigation of drama, film, and interactive space."[19]

Although the activities of *GTA V* and *GTAO* unfold in similar looking universes -- they have the same buildings, cars, physics, etc. -- the modes' story maps differ considerably. True to its celebrated franchise form, the game's single-player narrative lets players in on the joke, deploying particularly biting satire in the context of its media-savvy customers and a hyperawareness of its own status as a video game. But in *GTAO*, Rockstar has silenced its narrative voice with the hopes of capitalizing on fans speaking via the Content Creator. *GTAO* does not possess a strongly structured story map; yet this raucous online game still has a story to tell. At its best, *GTAO* is an extension of the invitation present in the single-player campaign to commit satirical and subversive crimes together, whether through inventive use of its level editor, unusual applications of the game's photography and crew-management systems for paratextual fan productions, and other emergent play that bubbles up in the free play mode and through glitches.[20] It is precisely these gameplay potentialities that make Los Santos such an inviting

destination with excursions that not even Rockstar-as-tour guide can anticipate. *GTAO* is the current go-to capitol of sandbox games.

Yet there is something resolutely unfunny about the narrative of Rockstar's kneejerk attempt to protect its GTA$-based economy. The ideology critique that is evident in the series' narratives and spatial design of Los Santos (e.g., its crass fast food joints, gun stores, billboards, etc.) is absent from the company's rhetoric and from *GTAO*'s economic and leveling systems. Instead of lampooning the incessant drive toward material accumulation and questioning the social Darwinism of the free market, the top-down enforcement in *GTAO* serves to reproduce those very things that Rockstar would normally set its comedic sites on (including the ability to circumvent the GTA-style "rags-to-riches" experience by purchasing GTA$ with worldly money).

Following their technical victory after the "maintenance period," Rockstar splashed social media and *GTA Online* loading screens with a particularly complex and troubling image. This announcement featured a high-angle representation of two men together in a firefight, with a sniper's crosshairs over one combatant's torso. The accompanying text includes the title, "Taking Aim at GTA Online Cheaters."[21] The image hearkens back, with unsettling similarity, to a storyline in the single-player campaign in which Franklin, one of the user's three player-characters, assassinates individuals to achieve desirable effects on stock market values. A more haunting real-life analog is found in another widespread social media image: an Israeli sniper's Instagram post featuring a Palestinian boy in the crosshairs.[22] Consider: this is a developer-generated image, presumably one reflecting Rockstar's self-perceived omnipotent position in relationship to a passionate, highly-invested, boundary-challenging segment of its customers. Here the gamespace becomes a tiered field that represents a series of inequitable power dynamics: between a game developer and the player, between a good sport and the cheater, between a hard-working ludic capitalist and the nefarious hacker.
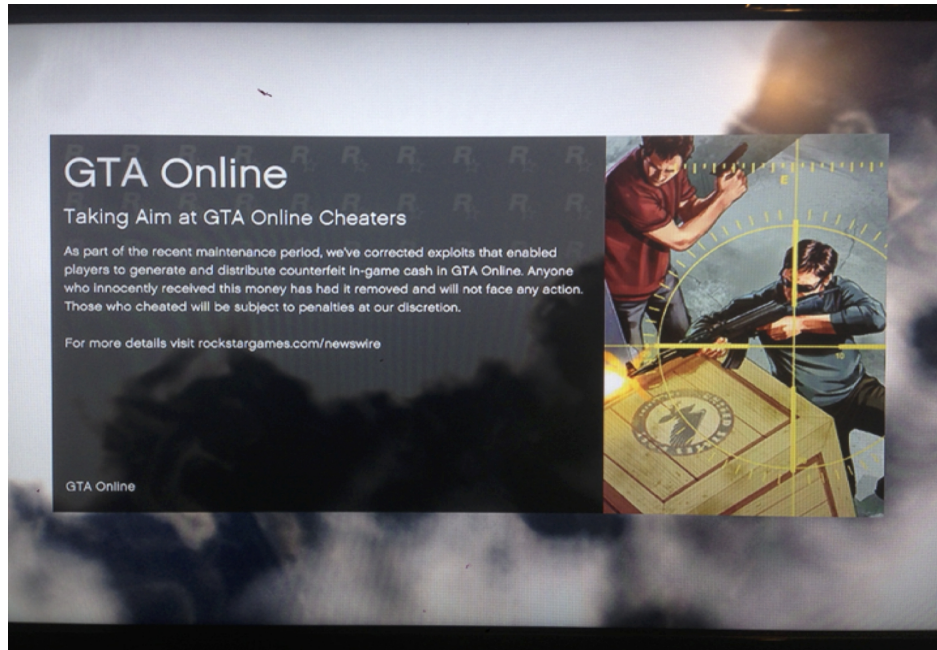
Figure 3: Rockstar Games takes aim at online cheaters.

Figure 4: Franklin takes aim in GTA V's single-player campaign.

Figure 5: Israeli sniper takes aim at a Palestinian child.

Satire and parody are useful tools for critiquing systems of power. But they are neither foolproof, nor are they impenetrable firewalls when it comes to erecting and maintaining commercialized magic circles. Indeed, when capitalist values nakedly pressure game developers to peer out from invisible sniper perches to sanction certain forms of gaming capital over others, it is difficult to feel like you're in on the joke and not the target of it.

Notes

1   Kevin Lynch, "Confirmed: Grand Theft Auto 5 Breaks 6 Sales World Records," *Guinness World Records*, October 8, 2013. Accessed March 25, 2014. http://www.guinnessworldrecords.com/news/2013/10/confirmed-grand-theft-auto-breaks-six-sales-world-records-51900

2   Patrick Dane, "'Grand Theft Auto 5' map compared to GTA IV, San Andreas and Real Cities," *Game Rant*, September 11, 2013. Accessed March 25, 2014. http://gamerant.com/grand-theft-auto-5-map-comparisons/

3   *GTAO* has tellingly rebranded XP as RP, for Reputation Points, suggesting that

accomplishments have intrinsic value for their ability to elevate one in the eyes of the online community.

4 R*, "Free GTA Online Deathmatch and Race Creators Update Now Available," December 11, 2013. Accessed March 25, 2014. http://www.rockstargames.com/newswire/article/51970/Free-GTA-Online-Deathmatch-Race-Creators-Update-Now-Available

5 Alexander R. Galloway, *The Interface Effect* (Cambridge, UK: Polity, 2012).

6 Ibid., 28.

7 Mia Consalvo, *Cheating: Gaining Advantage in Videogames* (Cambridge, MA: MIT Press, 2007).

8 Galloway, *The Interface Effect*, 29.

9 If the title sounds familiar is because it pays homage to Stuart Hall et al.'s Policing the Crisis: Mugging, the State and Law and Order (London, MacMillan Press, 1978) in which the authors analyze how a the crime of mugging was transformed by various institutions into a moral panic that was then mobilized to achieve particular policy goals and earn social legitimacy.

10 R*, "GTA Online Social Club Event Weekend this Fri-Sun Dec 20-22," December 19, 2013. Accessed March 25, 2014. http://www.rockstargames.com/newswire/article/52009/gta-online-social-club-event-weekend-this-frisun-dec-2022.html

11 Possibly the most overt and "in your face" comedic insertions punctuate each contested race and battle, as the victor's avatar stands against a black backdrop and gestures at the competitors. The growing list of gestural options includes "Salute," "Blow Kiss," "The Bird," and the notorious "Jerk." Customizable avatar adornment includes tattoos, jewelry, hairstyles, masks, and a wide selection of clothing from various times and places. The available combinations quickly paint an absurd and motley portrait of the competitors.

12 R*, "GTA Online Rockstar Verified Jobs Update: 10 New Additions by Power Users & Collaborative Crews," March 14, 2014. Accessed March 31, 2014. http://www.rockstargames.com/newswire/article/52206/GTA-

Online-Rockstar-Verified-Jobs-Update-10-New-Additions

13 The editing of GTAO's virtual terrain calls to mind the act of parkour or "buildering" -- the portmanteau of the words building and bouldering -- that reimagine through performance how we physically interface with existing spaces and architecture.

14 Rockstar Games, "Grand Theft Auto Online Official Gameplay Video, n.d. Accessed March 25, 2014. http://www.rockstargames.com/videos#/?filter=all&game=241&video=10983

15 The opening line of the video includes a female voice saying, "Rockstar Games is looking to bring you the heart of the GTA experience to a living, online world. Just what you choose to do in that world is up to you." Then, the narrator specifies and frames the sanctioned activities, "You're introduced to the world and its many opportunities for earning and spending money, having fun, and getting into trouble."

16 GTA Wiki, "GTA$ Stimulus Package", n.d., http://gta.wikia.com/GTA$_Stimulus_Package. It's worth noting as a point of references, that Los Santos's highest-price auto costs 1 million GTA$ before upgrades.

17 Jean-François Lyotard, *Libidinal Economy* (New York: Continuum, 2004).

18 Pete Haas, "GTA Online Microtransactions Worth $100 million Per Year?," Gaming Blend, January 27, 2014. Accessed March 25, 2014. http://www.cinemablend.com/games/GTA-Online-Microtransactions-Worth-100-Million-Per-Year-61894.html

19 Michael Nitsche, *Video Game Spaces: Image, Play, and Structure in 3D Game Worlds* (Cambridge, MA: MIT Press, 2008): 229-230.

20 The examples here are numerous and grow every day. With the Content Creator, gamers have generated absurd challenges like the "Jump the Lake" level (see, http://www.youtube.com/watch?v=qNn-Dme1Xqg). The in-game camera phone has likewise been used to replicate a range of photographic genres, including scenic, postcard-like images (http://kotaku.com/no-these-arent-vacation-photos-theyre-gta-v-screens-1371523877), combat photography (http://kotaku.com/grand-

theft-auto-online-has-an-unofficial-combat-photog-1504134188), atmospheric street life (http://www.buzzfeed.com/kevintang/street-photography-in-grand-theft-auto-v), and a jarringly dispiriting Christmas letter from a girl to her parents presented in the style of a graphic novel (http://imgur.com/a/MmwdY). Gamers have used the game's Los Santos Customs car shop to mod their rides into look-alike cars from film and television (http://www.rockstargames.com/newswire/article/52012/fan-pics-famous-rides-of-film-and-tv-invade-gta-online-uncanny-j.html). And there are no shortage of internet videos that feature gamers creating their takes on classic games of "Frogger" (http://kotaku.com/combine-frogger-and-gta-v-for-maximum-death-1512389057) and having fun with flying bicycles thanks to game glitches (http://kotaku.com/you-will-believe-a-bmx-bike-can-fly-a-long-way-in-grand-1496583829).

21 R*, "Taking Aim at GTA Online Cheaters, January 16, 2014. Accessed March 25, 2014.
http://www.rockstargames.com/newswire/article/52096/taking-aim-at-gta-online-cheaters.html

22 Phoebe Greenwood, "Israeli soldier posts Instagram image of Palestinian child in crosshairs of rifle," The Guardian, February 18, 2013. Accessed March 25, 2014.
http://www.theguardian.com/world/2013/feb/18/israeli-soldier-posts-instagram-palestinian

Matthew Thomas Payne is an Assistant Professor of Telecommunication and Film at The University of Alabama. His research interests include video games, convergent media industries, new media literacy, and military entertainment. Matthew is co-editor of the anthologies Flow TV: Television in the Age of Media Convergence (Routledge, 2011) and Joystick Soldiers: The Politics of Play in Military Video Games (Routledge, 2010). He has articles appearing in *Games and Culture*, *Critical Studies in Media Communication*, *Well Played: A Journal on Video Games, Value, and Meaning*, and has book chapters in numerous academic collections. Matthew is currently working on a manuscript that examines the production, marketing, and reception of military-themed shooter games following the September 11th terrorist attacks. He was also a member of the Year #1 and Year #2 "Connected Viewing Initiative" teams, an academic-industry research

collaboration between The University of California at Santa Barbara's Media Industries Project and Warner Bros. When he's not teaching, or writing, or conferencing, or parenting, or playing games, he's asleep. And when he remembers that he has a twitter account, you can find his thoughts: @ludology

Michael Fleisch is an award-winning designer, filmmaker, and writer in Cincinnati. A co-owner of dpict, llc, he provides graphic facilitation and collaboration design services all over the world, and has created live, realtime visual representations from the speech of luminaries as diverse as Warren Buffett, Noam Chomsky, Elon Musk, and David Geffen. Chase Public, Mike's nonprofit art and assembly space, has hosted poetry readings, music concerts, art openings, book signings, independent theater, collaborative art-making, radical activism workshops, hotly-contested debates, and maybe one bird fight. Mike loves his wife and three sons. He believes in the creative power of groups and the unique quality and equal value of every human life. He remains a regular contributor to HiLobrow.com, one of *TIME* magazine's top ten blogs of 2010, where he completed a term as artist-in-residence. You can follow Mike on twitter: @mikefleisch