A Game Made From Other Games: Actions and Entities in *Garry's Mod*

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Introduction

This paper analyses how actions define entities (objects, characters, etc.) in the game Garry's Mod (Facepunch Studios 2006). This game is a sandbox environment built as a modification of Half-Life 2 (Valve Corporation 2004), and comprises entities that have been ported and appropriated from other games, and simulated together into a new game landscape, devoid of the contexts and goals that once defined these them. In this way, Garry's Mod appears to be the game that is played after all other games have finished. Entities from other games are simulated by Garry's Mod, but it is up to the player to give them new meanings via their actions. The constant improvisation of new games and new modes of play seems to exemplify the ludic Situationist utopia New Babylon, conceived by Constant Nieuwenhuys. However, the actions within Garry's Mod are upheld by the economic logic of Web 2.0, making Garry's Mod an exemplar of what is known as "Game 3.0" – those games that anticipate play activities across Web 2.0 platforms. This socio-economic context, combined with the spectacle of self-referentiality and pastiche within the game itself, make Garry's Mod seem more emblematic of the cultural logic of late capitalism described by Fredric Jameson. This paper sets-up both of these readings as equally appropriate, yet contradictory characterisations of the game. By analysing how player actions define the ontology of Garry's Mod, this paper evaluates whether Garry's Mod is a ludic utopia or a postmodern spectacle.

Released by Garry Newman in 2006, Garry's Mod (or GMod) transformed the world of Half-Life 2 into an open playground, comprising in-game entities from various Valve games, and custom entities uploaded by players. (Pearson 2012) The "adventure island" narratives of the original games, such as battling monsters across urban wastelands (Jenkins 1998: 279) were removed; leaving behind only dislocated game entities and actions. I argue that these entities can no longer be understood according to their referent games alone and that they have been redefined by the actions and context that is unique to GMod.

GMod uses a highly reconfigurable structure to encourage players to improvise their own games, creating a milieu that is highly analogous to the ludic Situationist society envisioned by Dutch architect Constant Nieuwenhuys in his project New Babylon. New Babylon used a reconfigurable architecture to describe a society that has been liberated from the life of *homo faber* (man the maker) and elevated to that of *homo ludens* (man the player), where automation of production redefines human activity away from work, towards the constant improvisation of actions and situations. Conversely, the ontology of GMod, sourced and sampled from other games and visual media, is a classic example of what Jameson describes as the spectacle of broken signifiers, that are unable to produce new meaning, other than functioning as a

representation of the rhetorical entropy of late capitalism. To resolve this contradiction, I look at how player actions define the entities of GMod, and whether the resulting ontology rests closer to either position. In order to do this, I introduce how the modular nature of the Valve Source Engine prefigures the reconstruction and rearrangement of entities and narrative fragments we see in GMod. I outline how the layers of rules in GMod contextualise the actions available to players, and then I give a detailed analysis of player actions and how they give meaning to the entities and ontologies of the game and help adjudicate between the reading of Situationist utopia versus postmodern pastiche. I consider five actions – building, modding, performing, server administration and the hypothetical use of GMod as a channel for covert communication. The first four encompass the range of actions most commonly undertaken by players. The fifth is an esoteric transgression, but one that forms a powerful counterexample to the first four. Collectively, these five actions will illustrate how this diverse content is given new meaning within GMod. To demonstrate the social significance of actions in GMod, I conclude my analysis by situating these actions within the broader economic paradigm of Web 2.0 and what James Newman refers to as Game 3.0. I question whether the modifiable nature of GMod entrenches it within the extractive logic of Web 2.0, or if it allows for unpredictable ruptures of this economic framework. By examining the relationship between actions and entities in GMod, I seek to characterise the meanings produced by the game, and the significance of these meanings in a broader socio-economic context.

Modularity: Garry's Mod, Half-Life, and the Valve Source Engine

GMod derives from the modular ecosystem of the Valve Corporation and it Source game engine. Similarly, my discussions of action in GMod according to Web 2.0 and Game 3.0 should be contextualised within the pattern of production that preceded GMod. As such, I will briefly describe the relevant modular histories that fed into GMod. GMod relies on an open modular structure, where the rules of play and the entities that can be played with are continually amended and expanded by player contributions. It was created from the ontology of Half Life 2 and the Valve Corporation's Source Engine, and uses the structure of the first-person shooter as its basic interface, expanding the predatory focus of the weapon (Galloway 2006: 57-63) to facilitate other tools of manipulation and game editing.

The sampled and referential nature of GMod entities also directly relates to the narrative material it was built from. The entities of Half Life 2 were the original ontology of GMod, and can be described as an instantiation of specific genre tropes. The totalitarian dystopia of Half-Life 2 plot aligns with the long trajectory of Promethean fables, from Mary Shelley's Frankenstein to James Cameron's Terminator. (Yar 2014: 53) Henry Jenkins describes the narratives of games such as Half Life 2 in terms of the boys' adventure literature genre of the 19th century, and makes an important observation regarding actions and entities. In boys' adventure literature, characters and plots are "reduced to genre archetypes immediately familiar to the boy gamers, and defined more through their capacity for actions than anything else." (Jenkins 1998: 279) It is thus reasonable to describe Half Life 2 entities as fragments of a modular adventure narrative, and GMod entities as an improvisation based on a similarly modular and trope-based narrative ontology.

In addition to the original ontology, the history of the Source Engine shows how the improvisation and reconfiguration in GMod is simply an extension of the modding culture that

surrounds the Valve Corporation. The Source Engine debuted with the release of Counterstrike: Source (Valve Corporation, 2004), with Counterstrike itself being a player-created mod of the first Half-Life game, which in turn was built using code from the game Quake. (Dovey and Kennedy 2006: 125) Following the success of Counterstrike, the Valve Corporation began distributing editing tools for creating custom game content with every licensed copy of Source-based games. (Scacchi 2011) The emergence of GMod as a sort of game engine masquerading as a game makes sense in terms of the existing relationship between of Half-Life, the Valve Corporation, and player-produced content. GMod was released to the player community in an iterative fashion, where players tested it, and Garry Newman corrected and expanded it, progressively allowing players to spawn, rope and weld game entities together, to build collectively in a multiplayer environment and to program increasingly complicated relations using the Lua script language. (Pearson 2012) Therefore at both a narrative and software level, GMod emerges from a practice of appropriating modular fragments, and combining them into new game forms.

The Ontological Conditions of GMod, the Metagame and Game 3.0

Garry's Mod has two layers of rules, those defined by the software (physics, object spawning, avatar death, etc.), and those defined by players (role play and performance), and both of these layers enjoy the distinct quality of game-ness. In reference to Marcus Carter, Martin Gibbs and Michael Arnold's schema of coded, formal and informal rules (Carter et al. 2017), I will discuss the coded and the formal, those that are described by the game system and those that are formalised by players.

Upon entering a basic GMod landscape, if I walk off the edge of a building, I will fall, hit the ground, and lose 10% of my health, and after incurring enough damage, my character will die and I will have to choose whether to respawn. Whilst GMod itself lacks goals and quantifiable outcomes, Olli Leino's 'gameplay condition' suggests that these qualities are not required to classify it as a game. Leino argues that the gameplay condition is the resistance against which the player must struggle in order to remain in the game, and in order to have responsibility for their freedom to remain in the game (the Tetris player does not play with the goal of avoiding bricks from touching the roof, they play in order to keep playing). (Leino 2009) The gameplay condition of GMod derives from the vulnerability of the Half-Life 2 avatar. In Half-Life 2, if the player stops moving their avatar forwards, they stop triggering the instantiation of dangerous entities, and the game reverts to what Alexander Galloway calls 'the ambience act', where the game process is still underway, however the game has shifted into a purely aesthetic form of sights and sounds. (Galloway 2006: 10) When the player moves forwards, new enemy entities are instantiated, and the gameplay resumes. In GMod, I can end the ambience act by spawning a hostile soldier entity into my map, which can kill my avatar. I argue that the decision of the player to end the ambience act via their own actions, and the coded rule that leaves their avatar vulnerable to attack, create the basic level of game-ness for GMod. When running around a GMod landscape, avatar death is indeed what Sheun-shing Lee described as "a temporary setback" (Lee 2017), however, it illustrates how GMod retains a gameplay condition that defines it as closer to Half-Life 2, than to other virtual worlds such as Second Life (Linden Lab 2003).

As well as spawning a hostile soldier, I am able to choose from any number of entities to bring into the game landscape. Each of these entities has a set of non-negotiable properties. I can move any entity around the landscape, and establish new relationships between them. The entities can become components in built structures, or dynamic props that can extend my abilities, such as a helicopter or a buggy, or that can threaten my survival in the game, such as a dangerous NPC. The dangerous quality of a hostile NPC is undeniable, and makes Leino's gameplay condition visible and manifest. By spawning a host of Combine soldiers, I am now playing a Half Life 2 –themed survival shooter. I can also join a server with other players, and quickly the second layer of formal rules emerges on top of the coded rules. Espen Aarseth's determination of computer games as "games in virtual environments" (Aarseth 2003: 2) describes the distinction between a GMod sandbox and the myriad of GMod servers dedicated to playing under a specific set of player-imposed rules. The expanded possibilities of play in GMod, from in-game actions to modifying the software libraries pushes the boundaries between what is considered game and metagame activity.

In their recent book on metagames, Stephanie Boluk and Patrick LeMieux position games as "equipment for making metagames", where the metagame is defined in opposition to the black box or the magic circle, and the player is always playing with an awareness of their contextual milieu. (Boluk and LeMieux 2017) Boluk and LeMieux point out that the business model of Valve Software is contingent on the "proletarianising of the player" by creating games that encourage modding and player generated content. (Boluk and LeMieux 2017) In addition to exemplifying this condition, GMod also blurs the boundaries of play and game design. Extending Hanna Wirman's analysis of productivity and game fandom, GMod's reliance on player-produced content and player-designed game modes put such an emphasis on what might otherwise be described as metagame activity, that the boundary between game and metagame is essentially erased. (Wirman 2009)

In their final chapter 'Breaking the Metagame' Boluk and LeMieux discuss at length various instances of abuse and harassment associated with metagame activity, however this broadening of the term 'metagame' might lead us to a definition that simply says "interacting with a world in which computer games exist". Due to the diversity of ways a player can interact with GMod, the boundary between game and metagame is not especially useful for my analysis. Instead, I describe all of these actions as play, and concentrate on the dissolution of the divisions between play, design and work. Wirman also introduces James Newman's appropriation of the term Game 3.0 to describe the socio-economic framework of modding culture. Newman extracts the term from Sony Worldwide Studio's description of the game LittleBigplanet (Sony Computer Entertainment 2008), which sought to expand the internet connectivity of Game 2.0 using the social sharing platforms of Web 2.0 such as YouTube and Facebook, into a form where the game is an amalgamation of "systems and services, toolkits and suites of resources that may be adopted and adapted by the community of gamers." (Newman 2008: 178) The problem with this, as illustrated by Wirman, Leino, Möring and others, is that the expansion of play across Web 2.0 platforms is also a textbook replication of broader neoliberal economic trends, where user input is cycled through proprietary platforms as a mode of extracting value from voluntary player effort. (Moring and Leino 2016) (Wirman 2009) Whilst for Newman, the extension of play through Web 2.0 platforms represents creativity, productivity and sociality in play, for Wirman, Leino and Möring, this productivity is emblematic of the inequality in contemporary socio-economic relations.

As just described, the ontological conditions of GMod resonate with the contradictory reading of actions and entities that I have proposed for this paper. The structure of the coded and formal rules shows us how GMod provides the initial conditions of a game, and facilitates the creation of new games organised by player communities. The question we must deal with is how these actions of creation give meaning to the game, and allow us to understand the game in a broader socio-economic framework.

The ludic life of New Babylon, or neutralised postmodern pastiche?

In order to be more precise about the readings I am suggesting for GMod, I will now give a more detailed treatment of Constant Nieuwenhuys' New Babylon and Fredric Jameson's pastiche.

From 1959 to 1974, Dutch architect and artist Constant Nieuwenhuys designed an architectural structure for a new society. This society was based partly on Johan Huizinga's distinction between *homo faber* (man of work) and *homo ludens* (man of play)*,* and partly on theories of cybernetics developed from Engels to the Situationists, where the productive force of capitalism brings about the complete cybernetic automation of labour and administration. For Constant, the automation of the human workforce is part of a social revolution, where the exponential increase in productivity separates freedom from necessity, resulting in a surplus of human energy that must be liberated through play. The architectural structure that Constant designed, called New Babylon, is not a structure for change, but a structure built by a society that has already changed. It is the architectural reflection of a society liberated from labour, and focused solely on play and improvisation. (Wark 2011: 138-9) New Babylon is a megastructure comprised of modular sectors, suspended above the architectural past, above boundaries and above private property. Underneath the megastructure, buried underground is a fully automated system of production and administration – an architectural embodiment of the base and the superstructure. (Wark 2011: 138-9) The megastructure itself is comprised of modular, moveable sections that can be reconfigured to adjust to the whims of social behavior. Constant writes:

"the culture of the New Babylonian does not result from isolated activities, from exceptional situations, but from the global activity of the whole world population, every human being engaged in dynamic relation with his surroundings." (Nieuwenhuys 1974)

When improvising new situations and moments, a New Babylonian can rearrange and reconstruct the architecture of sectors within the city, influencing the behavior of others, and in turn allowing them to be influenced. Constant writes:

"each one acts on a milieu which is also that of the others and elicits spontaneous reactions…interventions form chain reactions that only come to an end when a situation that has become critical 'explodes' and is transformed into another situation." (Nieuwenhuys 1963)

For Constant, New Babylon is the creation of the New Babylonians, the material signifier of a revolutionised society based on play. As a contemporary heuristic, it is not a utopia, but a feasible project intended to confront a society and provoke change. (Wark 2011: 136) There are a number of compelling parallels between the ludic society of New Babylon and the improvised

play of Garry's Mod. The fluid transitioning between sectors or servers and the improvised moments of construction and destruction, bringing about in the inevitable reset of the server or sector by an administrative cleanup, suggest that Garry Newman may have unintentionally created a procedural New Babylon.

In his 1991 essay 'Postmodernism, or The Cultural Logic of Late Capitalism', Fredric Jameson develops a particular qualitative definition of the term 'pastiche'. Instead of a celebratory stylistic imitation, Jameson characterises the self-referentiality of pastiche as symptomatic of a crisis in representation under late capitalism. Whilst for Richard Dyer or Charles Jencks, the evaluative nature of pastiche is less determinate (Dyer 2007: 137), for Jameson, the significance of pastiche as a neutralised mimicry is profound. According to Jameson, the obsessive reproduction of historical images circumvents the ability to imagine the future outside of mere visions of catastrophe. This state of imaginative paralysis, between the deluge of pastiche and the inability to see beyond the present, is what Jameson calls "the moment of truth" for postmodernism and the ultimate signifier for globalised capitalism. (Jameson 1991: p.88) Jameson argues that within the accelerated reproduction of historical images, the simulacrum (the copy with no original) reveals a break in the structuralism of the Saussurean signifying chain. The linear relationship between the signifier and the signified is replaced by "schizophrenia in the form of a rubble of distinct and unrelated signifiers." (Jameson 1991: 72) This accords with Baudrillard's three levels of simulacra – in the premodern first order simulacra, the signifier is a surrogate for the real item, the modern industrial second-order simulacra dissolves the distinction between the real and the copy through mass production and classifies them all as commodities, and the postmodern third order simulacra of late capitalism places the representation before the original, and obliterates the concept of originality. (Bauddrillard 1981: 4) For Jameson, the carnival of technological representation in GMod, and the nostalgic humour of sampling game and popular culture entities would function as representational shorthand for the decentralised network of power and control of globalised capitalism. (Jameson 1991: 79-80) Rather than see GMod's improvised play as a Situationist utopia, Jameson's argument would instead perceive the "consumers' appetite for a world transformed into sheer images of itself and for pseudo-events and 'spectacles'." And by extension, the simulation of other game entities in GMod would, therefore, be what Jameson describes as the "random cannibalisation of all styles of the past, the play of random stylistic allusion." (Jameson 1991: 65)

On the surface, both of these readings seem applicable to GMod. For Constant, a life of ludic improvisation symbolises a post-revolutionary society, liberated from the material inequalities of late capitalism, whereas for Jameson, the endless play of dislocated historical signs is symptomatic of an aesthetics paralysed by this very system. The following section of this paper will use the specific analysis of player action to determine which reading most appropriately characterises the meanings produced by action in Garry's Mod.

Actions and entities

When analysing actions and entities in GMod, Espen Aarseth's distinction between textons and scriptons, or the ontological units of a text compared to their combinatory potential, implies that, due to the diverse modes by which players can use and experience entities in GMod, we must consider the semiotic meaning of these entities according to how the player experiences

them. (Aarseth 1997: 62) Olli Leino postulates three levels at which the player can discover the meaning of game entities. The first is the discovery of in-game ontology – what entities are in the game, how they are related, and what the player can do with them, the second is the discovery of instrumental rationality – how these entities can help the player remain in the game, and the third is the discovery of self-realisation, where the game allows the player to exercise their personal preference, and assert what they would like to do in the game. (Leino 2016: 13) Entities in GMod derive from the ported ontology of other games as well as player-made models, such as Teletubbies, The Terminator, or SpongeBob SquarePants. As previously mentioned, the schematic simplification of narrative tropes into entities for action that Jenkins described presages the types of narrative sampling and improvised play that defines GMod. However, whilst the instrumental rationality of playing GMod as Gordon Freeman or Donald Trump might be identical, but the semiotic pleasures vary wildly. Daniel Vella uses Husserl's notion that "the World is the totality of objects that can be known through experience", to argue that game ontology emerges via the player's cognitive intuition of the game-in-itself, which is continually moderated by their iterative experience of the game phenomena. (Vella 2015: 10) GMod forces us to stretch Vella's conception of the phenomenal game object. Given that a significant amount of GMod play forces the player into the library of scripts and file bundles at the back-end of the game, we must assume that the player's mental conception of the game itself encompasses the entire computational game object. Just as the extremely modifiable nature of GMod and its Game 3.0 logic remove the usefulness of the 'metagame' concept, they also collapse the distinction between the phenomenal game object and the computational object. Considering the relationship between the player, the phenomenal game object and the game entity, I now look for how sign relationships are produced by player action, and how these relationships can be considered meaningful between the dualism I have set-up, of Babylonian play and postmodern pastiche.

Action 1: Building

Standing in a sparse GMod landscape, I can spawn entities such as blocks and wheels, and connect them together using various relationships, otherwise known as 'constraints', that include welds, ball socket joints, etc. Due to the computational complexity of simulated collision detection in all 3D game engines, the connecting of entities into assemblies in GMod relies on the relationships between the physics collision properties, as opposed to their visible rendered 3D mesh. Complex details such as the intermeshing of cogs in a gear chain are superseded by programmatic rules that sidestep the visible mesh of the cog, and calculate according to the position and diameter of each cog. These programmatic rules are extended to the point where any game entity has a series of "pre-determined congruencies" or "feature slots" that detect the possible modes by which objects can connect and interact. (Chang 2016: 33-34) This abstraction of the game system is known to me through my experience making custom props and the inability to the game to support concave collisions, however as a player I can also discover the physics of entities by toggling their collision properties using the 'tool gun', and experimenting with how this effects their constrained relationships. A bathtub with four wheels connected, a seat welded inside, and two thrusters attached to the back, comprises a basic improvised car. By toggling collision properties, I can make a car that drives my avatar through walls. I say 'improvised', however, this bathtub car exists as a trope of the game – a beginner's project that is a familiar presence across GMod documentation materials. (Channel 2012) Learning to build in GMod follows the same pattern of development as the game itself– through online commentary, players exchange ideas and share their creations. Exemplars of this practice are the innumerable Rube-Goldberg devices shared on GMod YouTube channels. (Chung 2008)

Using duplication tools, I can save and share my built contraptions, thereby adding to the lexicon of game entities.

Action 2: Modding

Whilst the saved constructions built by players is one form of expanding the ontology of GMod, the other, and far more visible expansion occurs at the level of adding new custom entities – an action that is also a logical extension of the modified history of the game itself.

To bring a new entity into Garry's Mod, I must consult the Valve Developer Community website, YouTube tutorials or other Garry's Mod forums to learn exactly how to port my entity into something that can be spawned into the game. At this level of gameplay as modification, both the modder and mod user must acquire fluency with the GMod library file structure in order for these mods to assimilate into GMod gameplay without generating errors.[1] I must export a 3D model, colliders, animations and skeleton into the esoteric file formats used exclusively by the Valve Source Engine, such as SMD model files and the texture-related VTF and VMT files. This relies on custom plugins written by the community to transform generic 3D file formats into these proprietary forms. The Valve files are then compiled using a Quake C script, which determines the interactive and physics properties of the entity. Finally, my resulting files must be bundled into the GMA (GMod Add-on) format and uploaded to the GMod workshop. The Garry's Mod website and Steam Workshop host a multitude of customised maps, player models, weapons, vehicles and other entities. By working my way from a 3D modeling program, to spawning my custom entity in GMod, I have become familiar with an entirely new series of file formats, intermediary programs, script commands, and the detailed structure of my GMod file directory. As previously mentioned, this mode of play requires that Daniel Vella's notion of the game phenomena as perceived by the player, expand to the back-end file libraries of the game software. It also illustrates how a wide range of software and community how-to guides are required to participate in this aspect of GMod play, illustrating Game 3.0 at work.

To explore another side of adding to the ontology of GMod, I downloaded the 'Skyrim Snpcs' package, built by the player Silverlan, and re-uploaded to the Steam Workshop by the player Sgt. Hotdog. In this package, the 3D meshes, animations and other data have been ported from the original Bethesda files, and the scripted and compiled to be compatible with GMod. (Silverlan 2012).[2] Because I can only estimate the scripting accuracy with which the Bethesda monsters have been ported into GMod, I conducted a comparative test to work out the parameters of one of these new entities. After spawning the dragon Alduin, without the spells or magic I might use in Skyrim, it took me 49 shots with my Half Life 2 rocket launcher to defeat the GMod NPC of the dragon. However, I was also able to kill the dragon with one shot from my GGN40 Skullsmasher anti-material rifle. [3] I can shoot down a Half-Life 2 Combine Gunship with 3 shots from my rocket launcher, but the gunship is immune to damage from my

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[1] The comments section for GMod addons frequently discuss errors generated both by modded components as well as their mode of player installation.

[2] Silverlan's Snpc (Scripted Non-Player Character) package was re-uploaded with minor modifications by Steam user Sgt.Hotdog on 17 July 2015.

[3] A custom weapon uploaded to the Steam workshop by player Heavy-D ("designed by Dr. Seuss in WWI to shoot down Nazi starships). (Heavy-D 2013)

GGN40 Skullsmasher. The absurdity of this experiment simply illustrates that this is not the same dragon that it was in Skyrim. As a game made from other games, the representational logic of GMod flattens all entities into a new common landscape. GMod entities make semiotic references at both a representational and a procedural level, meaning that the player experiences not a dragon from Skyrim, but what a dragon from Skyrim would be like in GMod. Building on Gonsalo Frasca's claim that the player and the game work together to form sign relationships (Frasca 2007: 196), I describe GMod as a game that simulates other games, and produces new sign relationships based on how these entities are used within GMod, and the player's appreciation of how their newly imported entity brings a level of game self-referentiality into the GMod landscape. The spectacle of representation that results from GMod's expansive absorption of other game entities strongly recalls Jameson's previous description of the cannibalisation of past styles, and the consumer desire for a world populated only by images of itself. Just as Jameson explains this behavior as a symptom of late capitalist desire, the Game 3.0 networks that facilitate modding of new entities also rely on the neoliberal material relationships of Web 2.0 emphasised by Wirman, Möring and Leino. In the language of Constant Nieuwenhuys and Johan Huizinga, the practice of modding forces a blurring between the categories of *homo faber* and *homo ludens*.

Action 3: Server Administration

The action of server administration is the level at which Aarseth's "games in virtual environments" is formalised within GMod. These rules are written at the level of configuration commands (where formal rules become coded rules) (Carter et al. 2017: 1), and at the level of explicit server rules that are displayed to the player upon joining the server, and upheld by the moderation of administrators. Much like the process of modding, server administration requires the player to access customised software and online instructions on how to host a server, as well as an understanding of the social milieu in which GMod operates, and how existing conventions and player behaviors require certain formal rules, and how informal rules should be enforced in a way that makes the administrator a firm but fair referee of the gameplay condition. (Facepunch 2012)

GMod Servers are categorised into game modes, where the sandbox has restrictions placed upon it to support the rules communicated to players when they enter. Popular modes include DarkRP (role play), Prop Hunt (hide and seek where players disguise themselves as game props) and Death Run (game levels configured as themed obstacle courses). The rules set within the server configuration file limit the actions available to players, such as denying no-clip mode, and limiting entity spawning, as well as setting the passwords and permissions that empower the administrator to enforce other formal rules. (Radek 2013) The rapidity of real-time play combined with a large number of players requires the referee/dungeon master administrator to quickly deploy player-freezing, server kicks and bans. In this action, the player must understand GMod at the level of server configuration as well as the level of social administration. This action embeds the player in the ludic culture of GMod, where actions can only be refereed according to the conventions of GMod. It is possible that at this level, the player simulates a New Babylonian state, where actions are only adjudicated according to the internal logic of the game system.

Action 4: Performative Play

The use of GMod as a performative medium is a large part of how GMod is played, consumed, produced and reproduced, and is one of the most visible demonstrations of GMod under the logic of Game 3.0. In his case study on performativity and live streams, Veli-Matti Karhulahti illustrates how spectators can have a real-time effect on game play, including both pledges of support and destructive trolling. Karhulahti focuses on a specific definition of performance that requires the performer and their observers to be co-present (Karhulahti 2016) however for my overview I will use a less specific definition of 'performance' that also encompasses self-documentation for shared consumption. I argue that as a mode of play, performativity in GMod can also be similar to how John Urry describes the history of travel photography, where sights and exploits are recorded for the delayed pleasure of sharing them with an audience. (Crawshaw and Urry 1997: 176) Recording funny moments from GMod play and uploading them to YouTube is an important aspect of how GMod is consumed. It allows players to teach each other how to play, and to share a mutual enjoyment in the absurd, hilarious, or awful moments that are collectively produced. In his research on Machinima, Gareth Schott argues that the hybridisation of players, modders and authors in a game like GMod yields a collective auto-ethnography, dispersed across game modifications, machinima, and all other aspects of the game. (Schott 2011)

The YouTube channel Vanoss Gaming has over 21 million subscribers, and has posted a number of GMod exploit videos. These often take the form of a guided tour of a custom server by the server's creator, where the Vanoss players explore and perform in the unique landscape. (VanossGaming 2017) Vanoss Gaming is an exceptional case where Game 3.0 logic has allowed player productivity to result in substantial financial remuneration. (Youtubers.me 2017) If GMod lacked quantifiable outcomes in its sandbox gameplay, the subscriber and play statistics of YouTubers immediately introduces a certain definition of success, and a differentiation of player effort in relation to financial remuneration. Because action in GMod extends so far into the logic of the internet, the relationship between these actions and the socio-economic context of Web 2.0 directly shapes the meanings afforded by its game actions. Whilst the instrumental and expressive productivity of performative play can have satiric or countercultural intent, they are ultimately funneled through a mass market where the remuneration of exemplary players such as Garry Newman or Vanoss Gaming is far outweighed by the unpaid play of the majority. This is not a criticism of the Valve Corporation per se; it is merely an illustration of how GMod play exemplifies broader socio-economic patterns of work, play and revenue distribution.

Constant Nieuwenhuys made it very clear that New Babylon was a reflection of a society that had undergone a ludic revolution, and was emancipated from labor by an automated welfare state. The society created New Babylon, New Babylon did not create the society. The way that New Babylon could be altered in response to the improvised play of its inhabitants certainly bears a close resemblance to the practices of building and server administration in GMod. However GMod players are not New Babylonians, they are grounded firmly in their contemporary context. Of the four actions analysed, the actions of modding and performance most clearly illustrate how players are both playing and working within the logic of Web 2.0, where any input can hypothetically earn an income, but statistically the only guaranteed revenue from this action is that earned by the platform itself, be it YouTube, Steam, Valve or Facepunch Studios. To read these activities in terms of Jameson's definition of pastiche, we could say that the pleasures of recombining and building with the seemingly endless stream entities ported

from other games and pop culture sources are ultimately a representation of the "immense communicational and computer network" that itself is "a distorted figuration of something even deeper, namely the whole world system of present-day multinational capitalism." (Jameson 1991: 80) For this reading, the material relations of GMod actions, evidenced by the blurring of work and play, are the aesthetic logic behind GMod's cannibalisation of other games, and that the sign relations formed by player action can only deliver pseudo-events, simulations of simulations, and a spectacle devoid of subversive or emancipatory potential.

Action 5: Online privacy via GMod

My analysis of actions so far has concluded that the economic relationship of player funneling human capital back into Web 2.0 platforms, and the image-addicted pastiche of the GMod ontology define GMod actions as a form of politically neutralised spectacle. However there is one more action in my analysis that runs counter to this conclusion, and that is the potential of GMod to function as a secure, covert channel of communication. At the 2012 International Conference on Security and Management, a team from Rochester Institute of Technology analysed GMod as a potential channel of covert communication. The client render model of multiplayer online games such as GMod means that player interactions occur on the server, but the rendering of the environment only occurs on the player's computer, which opens the door for such games to be used as channels of covert communication. To illustrate their point, the authors devised a system where one player spawns a group of 55-gallon barrel entities, each with their RGBA (red, blue, green, alpha) colour values altered. Because RGBA values can be decoded into ASCII decimal values between 0 and 255, the colour of each barrel can represent four numerical values, which in turn could be transcoded into letters and words. Thus by temporarily spawning a set of coloured barrels, two players could exchange a hidden message that would not be recorded anywhere on the server logs, only visually rendered on the computer of each player. By logical extension, the authors of this study argue that the entire landscape of GMod could be utilised in various ways as an entirely secure stenographic language. (Deffenbaugh et al. 2012)

Whilst obscure, and certainly not a paradigm game action, the repurposing of GMod as a secure channel of covert communication is highly significant. One of the fundamental shifts of Web 2.0 has been the acknowledgment that privacy and anonymity have been obliterated by surveillance and algorithmic targeting, made clear by the 2013 Edward Snowden leaks. If GMod is used as a tool of covert communication, this action can no longer describe an entity according to the neutralised language of postmodern pastiche. Whilst this activity is not that of a New Babylonian, it illustrates how the game can be used to emancipate they player beyond the Web 2.0 conditions on which the game is based. The expanded gameplay afforded by the configurable nature of GMod means that, despite my characterisation of neutralised pastiche, we cannot completely predict what meaningful outcomes might emerge from it.

Reflection on actions

My analysis of actions and entities in GMod was possible due to the highly configurable nature of the game. My first finding was that this expanded the player's perception of the phenomenal game to almost every level of what would normally be considered the computational artifact.

My second finding was that because so many GMod actions exemplify the logic of Game 3.0, they are most accurately understood as representations of the contemporary socio-economic climate, and therefore most appropriately read through the logic of Jamesonian pastiche, rather than through the revolutionary vision of Constant Nieuwenhuys. My third finding was that the configurable nature of GMod could afford actions that directly contradicted the logic of Web 2.0, and therefore cannot be read using the Jamesonian assumption of a neutralised language. This suggests that the modularity of the game itself will inevitably produce such unpredictable actions.

Conclusion

My analysis of actions and entities concluded that GMod had a higher degree of congruence with the cultural logic of late capitalism, than it does with the ludic society of New Babylon. This was due to the self-referential spectacle of game entities, and the Game 3.0 logic that drives the majority of player actions. However, the totalising effect of this reading was destabilised by the final action I encountered. Whilst using GMod as a covert platform seems esoteric, it foreclosed my ability to define the game as postmodern spectacle because it was an action that directly contradicted the logic of Web 2.0, on whose platforms Game 3.0 is leveraged. This finding demonstrates that a highly configurable game such as GMod can produce unpredictable actions, and how any adjudication of such a game must be ready for an action that can fundamentally destabilise the criticism.

Games

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HALF-LIFE 2. Valve Corporation. PC, 2004.
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