The 'Dominant Effect' of Games: Content vs. medium

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Abstract

Digital games receive an age-restriction rating based on the depiction of harmful content and its possible impact on players. Following on from film, the relationship between media content and its psychological impact on audiences is assumed to be further heightened by the interactive nature of the medium as it makes players responsible for constructing the moving-image on screen. While classification processes continue to serve as an exercise in caution, there remains little evaluation of a particular rating decision's accuracy via any subsequent examination of the interactions between player and game text. This paper argues for the benefits of researched accounts detailing the interactive experience of games for its capacity to challenge public understanding of the medium. In doing so, the paper will introduce a research design that is currently being employed to achieve an understanding of player experiences. The intention is to produce an empirically validated model of media 'usage,' capable of accounting for the 'actual' *experience* of play and the ways game texts are activated under the agency of players once they enter everyday life and culture.

Keywords: Classification, Player Experience, Player Accounts, Configuration, Interpretation

Introduction

Established in 2001, the humanities-oriented discipline of games studies is now testament to the complexity and hybrid nature of the medium of games. The focus remains on extending our capacity to articulate the dynamics and demands of games that function both as a 'text,' that can be read, and an 'activity' that demands players participate in the construction of its material form and structure. Games are a particular kind of activity, rule-based, which determines that they have explicit requirements and clear-cut boundaries. Engagement with rules both clearly dictates the flow of a game and encourages the player to respond with the most effective strategy for progress and a successful outcome (Björk & Holopainen, 2003). Ludology (the term given to the study of game activities) also represents a specific desire within the game research community to focus on the mechanics that encourage and permit the player to act on a game space. As Frasca (2001) was quick to recognise, the "potential [of games] is not narrative, but simulation: the ability to represent dynamic systems".

To date, media 'effects theory' has produced an abundance of research findings that argues both for (Anderson, 2004; Anderson & Bushman, 2001; Gentile *et al*., 2004) and against (Ferguson, 2007, 2008) increased hostility and aggression as a result of playing digital games. Appraising this research critically (e.g. Browne & Hamilton-Giachritsis, 2005; McQuail, 2005), it has been permitted to proliferate without the aid of a developed understanding of games either as *texts* or *processes* (Kontour, 2009). We therefore seek to emphasise the need to "uncover the relationship between the structure of a game and the way people engage with that system" (Waern, 2012, p. 1). The political challenge for game studies remains, to complete a triangulation of methods by counterbalancing the dominance of surveyed and experimental research-findings with its own nuanced approaches to researching game-play experience. As Livingstone (2007) has argued, "rigorous scientific research is often called for by policy-makers, in practice they can find contextual and culturally-differentiated accounts that chart the everyday conditions under which people access and use media more helpful in framing regulation" (p. 13).

New Zealand possesses a legally enforceable classification system which functions to minimise the impact of the *putative effects* of violent interactive games through assigning age-restrictions to control access and spread. In minimising perceived risk by employing a range of age-restriction classifications, the public is presented with the outcome of an assessment (e.g. R16 or R18) that is accompanied by a short rationale that *significantly* presents the role of the player or what the performance of play demands as somewhat immaterial. Typical articulation of a decision making process on classification labels can be illustrated with the random example of*Red Dead Redemption: Undead Nightmare* that is classified in New Zealand as R16 and described as containing "violence, offensive language, drug use and sex scenes." What this and other descriptors fail to imply or distinguish is how such attributes form the characteristics of the game system and the demands they place on the player. As a mode of communication to the public, classification obviously prioritises maturation and concept of age appropriateness (a pragmatic and necessary device). However, more significantly, on its website the New Zealand Office of Film and Literature Classification (OFLC) stipulates that if a game receives an R18 rating, then "the

violence in the game has been judged to be as strong as the violence in an R18 DVD or film". What we find in this statement is a negation of the significance of the interactive nature of the game experience. This aggregates the subjective experience and representational qualities of both mediums that serves to weaken the value of differing aesthetic qualities, agency affordances, moral significance and the very nature of the engagement itself (the degree of interpretive and configurative activity demanded).

The manner in which classification decisions are presented and articulated to the public via game packaging is also symptomatic of the lack of demands placed on the public to revise its understanding of the medium in a rapidly shifting mediascape. To this effect, classification labels fall short in terms of the nature of the information and advice it provides to consumers in making decisions on the appropriateness of the content for themselves and/or their families. Labels epitomise the assimilation of games into a pre-existing classification system designed with more traditional non-interactive mediums such as film in mind. Articulation in this manner only perpetuates media-blindness (Hausken, 2004) to the unique properties and demands of games.

By examining and articulating the relationship and interactions between games and their players and the way meaning in games is emergent, our project aims to come to a better understanding of the ways in which game content is experienced. We attempt to achieve this through the implementation of a mixed methodological approach that can counterbalance conscious reflections on game-play with measured unconscious bodily responses and within-game behavioural activity. This mixed method is located at an intersection between humanities, social sciences and computer sciences that aims to overcome existing paradigmatic barriers and report on the way games function as textual and structural objects that carry cognitive, affective, and social implications. We determined that in order to achieve more "qualified and context-depending conclusions" (Livingstone, 2007, p.16) it was necessary to develop a different tactic and employ several methodologies concurrently.

Research Design

Our research design is predicated on requiring players to play a single game text over a period of five to six weeks. During this period the project seeks to engage with participants on the subject of their play experience in a number of different ways. The first level of engagement concerns measurement of the game (audio visual output) together with an understanding of the player's role in its production. Player's engagement is variously represented by 1) quantifying and analysing the player's within-game behaviours via the aid of automated screen-extracted game-play metrics (see Marczak *et al*., 2012), 2) assessing physiological reactivity (indicating levels of arousal) that is applied in the production of bio-metric storyboards (see Mirza-Babaei & McAllister, 2011) which visualise any relationship between a player's biometric signal and game events and 3) employing eye-tracking to determine how and also what game-players and non-game players attend to on-screen. As Tim Smith (2011) states, it is "only the visual information at the centre of attention that can be perceived in detail and encoded in memory". By plotting the gaze of a 'viewer' on to game-play footage, it is possible to note what is being viewed and the time spent

examining and attending to particular information. Beyond the activation of game texts during play, we also ask participants to engage in retrospective player commentaries in response to footage of their own game-play sessions. This procedure is extended to also include 'commentaries' from non-players who are recorded viewing the footage generated by our participants (to again enable eye-tracking). Finally, and beyond the confines of our research set up, participants complete diary entries that capture their accounts of their game-play experiences away from the research context of our study. It is this component of the research-design that we wish to present in greater detail in this paper in order to illustrate the manner in which players process the game experience.

How Players Articulate their Playing Experience

For the remainder of this paper, we delve into some of our preliminary findings in order to outline the value of exploring how players negotiate and activate the interactive matrices of a particular game-text containing "semantic, narrative, figurative and strategic resources" (Ferri, 2007, p.3). To this end, we will focus on the project's first substantial application of our diary method that was administered to enable participants to reflect on the experience playing R18 first-person perspective game *Dead Island* (Techland, 2011). Ordinarily the study demands that we attain exemption from the NZ Chief Censor under Section 44 of the *Films, Videos and Publications Act 1993* in order to measure player experiences with participants that fall under the legal age-restriction. In order to assess the significance of age-restriction labels, the project tests for significant differences in responses amongst ages 13-16 with R16 games. However, the findings presented in this paper are drawn from the process of piloting our diary method with mature players in which it was assessed for its functionality and effectiveness as a data-gathering tool. One rationale for employing a diary method, was a desire to take heed of Garnham's (2000) warning against confusing, or equating 'use' with a simplified notion of an 'active' audience. The diaries sought to achieve an articulation of the 'lived' experience of game-play that is otherwise stored, like all other lived experience, in the player's memory. It was hoped that certain episodes would leave a stronger imprint than others (e.g. overcoming seemingly impossible odds, player subversions or poor programming etc.). Diaries also permit the experience of game-play to be assessed longitudinally and away from the presence of both the researchers and the somewhat artificial nature and lab-like conditions demanded by the other methods employed in the project.

In order to meaningfully execute the diary method it was determined that it was necessary to add a further approach to the research design of the project and utilise our own textual and structural analysis of *Dead Island* as a 'playable text.' This enabled the construction of a structured diary process in which significant or interesting events over the course of the game experience could be used to stimulate reflection on the player's experience. Prior to engaging participants in the process of reflecting on their game experience, three interlocking and overlapping frames were utilised by the research team; structural analysis, textual analysis (Barthes, 1977a,b) and to a lesser degree inter-textual analysis (Bennett & Woollacott, 1987). In applying a model of textuality that incorporates aspects of practice and characterises meaning and interpretation as emergent and situated, the distinctions between the

'game as text' and the 'game as played' were assimilated. Textual analysis is conceptualised as meaning that emerges when the text is actualised or practiced (*read*, in the case of a novel, *played*, in the case of a game). Textual analysis permitted an expression of how text "is unmade, how it explodes, disseminates – by what coded paths it goes off" (Barthes, 1977b, p.127). *Structural analysis*, on the other hand, demands that textual analysis is situated within the organisation of the game's constituting units and the ways in which these units inter-relate in time and space. Falling within the realm of structural analysis are aspects of game design, typologies (rules or genre), temporality, spatial navigation and the study of event types (Salen & Zimmerman, 2004; Hunicke *et al.*, 2004). Analysis was used to facilitate participants' reflection on potentially otherwise more tacit moments of their performance and experience.

A combination of university students and employees (all male) participated in the study for a period of seven weeks (the length of the study was determined by how long it took for participants to complete the game). Diary entries were completed using a semi-structured online diary tool constructed specifically for the study. This tool allowed participants to write and submit individual diary entries online. By administering the diaries online it was possible to view entries upon submission and post follow-up questions in direct response to participants' comments. The experience of game-play was thus assessed longitudinally from the comfort of the participants' own homes. Diary entries were structured variously by either determining the save point where players should play up to before reflecting on the game (controlling the experiential-frame under consideration), or, via the suggestion of discussion topics (specific to the game) for participants (as described above). In doing so, participants roughly moved through the game at a similar pace and reflected on specific aspects relevant to the specificities of *Dead Island*. In playing and analysing *Dead Island* ahead of the study, we were able to form an opinion as to how the game prioritises or implies different frames of involvement. While participants were free to highlight significant experiences and features of the game that stood out for them, we were also interested in examining how identifiable and memorable different forms of involvement (e.g. kinaesthetic, spatial, shared, narrative, affective and ludic; Calleja, 2011) appeared to them.

Findings

Poels *et al*. (2009) note that while players' opinions and dispositions towards games are strongly influenced by the thoughts, plans, feelings, and expectations held prior to game-play, this is rarely expressed or focused-on in player experience research. In line with this, the research process began with an exploration of participants' expectations prior to play. The audio-visual trailer used by developers to publicise the game in advance of its release was employed to stimulate participants' anticipation. In watching the game's trailer, participants' attention was triggered, sparking a concentration of mental recourses on the experience that*Dead Island* might offer. The *Dead Island* trailer is beautifully poignant and cinematic in its styling, depicting parents' futile attempts to save their daughter (and themselves) from a zombie attack. However, as a dramatic event, it does not utilise or depict game-play, but is a skilfully animated narrateme (Cubitt, 2004) that omits the tropes of a game that disturb the coherency and consistency of the game's fiction (Juul, 2005), such as

scoreboards, health-bars, direction arrows, button prompts, etc. As a prelude to the experience of the game, the trailer only really serves to showcase the graphical and animation skills of the developers, leaving participants forming an impression of the game based chiefly on prior gaming experience and genre. Participants' responses to the trailer were surprisingly focused on the behavioural demands of the game despite lacking communication of the imperative mood of the interactive text. Players were attuning to the ensuing demands both physically (actions) and mentally (strategy). For example:

> *I expect to be re-killing a lot of zombies, mostly with melee weapons that are scavenged from the environment. The trailer shows a few types of zombies so I am expecting there to be several different classes of zombie with differing attacks and weaknesses. I expect to be exploring quite a vast game world.*

Many participants predicted the nature of their engagement with zombies to be close melee combat, using 'make shift' weaponry (items obtained from the environment), but anticipated with pleasure their exploration of the environment to achieve this.

Configurative Involvement

Similarly, 'character commitment' was approached, with what Lindley and Sennersten (2006) call the "competitive, rule constrained form of a game" (p. 6) or with 'ludic involvement' (Calleja, 2011) in mind. Diary entries quickly began to reflect what Aarseth (1997) has termed the ergodic quality of games, or the disposition or readiness to act. This is partly illustrated by the fact that game characters are perceived or approached as vehicles possessing certain attributes that fall under the player's control (Newman, 2002). Klabbers (2003) also usefully notes that the syntax of a game at its most basic is a process of engaging with a rule-system that defines the sub-set of positions within the game space (e.g. various scenarios in which survivor repels zombies). The role of the player therefore "provides context for interpreting a game space" and "offers a lens and a perspective for interpreting and acting" (p. 53). Consistently, diary entries uncovered a continued preference for interpreting the game and game environment from a configurative perspective. Environments, for example, were perceived as a place for action or a means to execute a specific type of strategy. This is very different from the way that we would look at (or assess) an environment in other non-interactive media. For example:

> *I quite enjoyed the sewer environment (…). The groups of zombies were smaller and because of the narrow tunnels they could only attack a couple at a time. (…) It provided multiple paths and had many nooks and crannies to explore in my search for better loot. (…). They [the environments] have been designed in such a way, and rewards have been placed frequently enough, that I want to explore everything the environments have to offer.*

Similarly, character selection in *Dead Island* was determined on assessment of the nature of the game and the most appropriate vehicle for negotiating the game space:

> *his stats appeared to be higher than the other characters. His melee speciality appealed more than the other male character that specialised in throwing.*

I chose Sam B mostly because of his extra health and his abilities.

I felt like taking a gun person in a melee game was a bit cheating.

Characters deployed in games are often recognisable archetypes that function as compositional, or structural elements acting within a game space, utilising abilities that can largely be extracted from the visual motives employed in their design or stats. As the story of *Dead Island* advanced (and earlier narrative gaps are filled in), configurative involvement did not diminish. Indeed, participants were directly questioned (around level 9) on 'narrative involvement' and the general appeal of the story-line, only to respond with the view that it remained "peripheral to the game". This was in part attributable to the manner in which: "Most of the characters are quite stereotypical and so I don't feel for many of them". Adding to this comment, non-player characters situated in the game world were also perceived as "little more than quest givers".

These examples of active orientation may prove significant from a classification perspective, as in the case of *Dead Island,* a configurative approach appears to exist at the forefront of players thought processes during 'violent' encounters. In doing so, it restricts and questions the assumed relevance of the aesthetic or representational qualities of that same conflict. Multi-modality theory is a branch of social semiotics (Hodge & Kress, 1988) that has fruitfully been applied to the analysis of games (e.g. Schott & Burn, 2007) precisely because it acknowledges how the communicative strata of games extend beyond representation. What is watchable as screen-output in games, forms part of the orientational function of the text that will point to a game's imperative mood and the player's need to act. At the moment however the 'impact' of games is largely attributed to the image on-screen as a principal communicative form that the player interprets (not configures). The rating process thus characterises the audio visual representation of (violent) content, leaving the role of interactivity and the way that content is encountered and processed by players severely under articulated in their certification.

It is worth noting that player activity is not always considered to require a high degree of conscious attention. As Calleja (2011) argues, "most interactions with an environment are possible because we have an internalized knowledge of how various aspects of that environment work" (p.21). This could support the claim that its the degree of involvement (e.g. ludic) and its *weighting* that allows players, undisturbed by a conscious procedural engagement, to freely explore violent or immoral desires as was the case with *Manhunt* (Rockstar North). Yet, when a player is faced with experiences they cannot so readily interpret, their "mode of being becomes more critically removed" and they are required to actively think about what they are doing. In this case, participants in our study were consistent in their interpretation of the demands of *Dead Island* in relation to 'prior learnt experiences' that aided the development of strategies for adapting to the game, for example:

Years and years of FPS gaming, including RtCW & Enemy Territory has taught me that head shots are supreme. Even if there are other options available, it is hard to retrain the mind and muscle memory out of this habit.

But, on the other hand, for *Dead Island* there existed a continuing need to consciously attend to the shifts in the ludic demands of the game as it progressed. For example, upon beginning Level 5 of the game (first level in the second act of the game) participants discovered that difficulty levels increased exponentially, with prior strategies becoming redundant and ineffective:

> *… the game suddenly became much more difficult. My tried and true method no longer works … This is good as it provides more of a challenge, but I find this somewhat distracts from my immersion.*

It was almost like a whole new game … The learning curve is quite steep … It was about this time in the game where I was starting to feel comfortable with the UI and how the mechanics of the game worked.

As the former quotation (above) stresses, strategic involvement overrode any extensive construction of, or attunement to the representational facade of the game. Indeed, diary entries throughout the game, articulated actualisation of tactics through a process of exploration of the perceived available options and their perceived consequences. While there is research that expands the notion of the game device as the "central (and often final) arbiter of rules, upholding the contract of the game with its players and seamlessly and equitably enforcing a fixed set of rules" (Taylor, 2009), it remains the case with more traditional configurations that interpreting the conditions of rule-governance still remains a key challenge and pleasure for many players:

> *The stamina aspect is something that I soon realized is the limiting factor for my character in terms of how many creatures I can attack at once – If I take on more than about three or four, I frequently found myself watching the zombies biting me as I waited for my stamina to recover enough to hit back.*

Indeed, the constrictions placed on players were acknowledged for their role in encouraging more nuanced and appropriate strategies. For example:

> *I think the stamina mechanic is excellent, and the tuning is perfect because you must time your attacks and pick your targets carefully instead of simply spamming buttons. You do get a nice feeling when you outwit the game and execute your plan properly.*

A further example of this in the earlier sections of the game, could be found in players learning the value of the 'kick' – an action that was succinctly evaluated for its capacity to "stop a charging zombie, doesn't drain fatigue, does a fair amount of damage, knocks down zombies and is fast. Utilizing the kick is an effective way of preserving your weapons and preventing damage to your character".

Conceptualising Player Experience

Several theorists have obviously already attempted to explore and define players' engagement with games. McMahan (2003) has for instance emphasised the player's diegetic ('immersion') and non-diegetic ('engagement') involvement in the game. Similarly, Ermi and Mäyrä (2005) identified an imaginative and challenge based immersion and also Adams and Rollings (2007) divide immersion into narrative

(imaginative) immersion and tactical and strategic (challenge based) immersion. Added to these is perhaps the most widely accepted and popular distinction by Juul (2005), who explains game-play as an experience that involves playing with real rules in fictional worlds. We are interested in the application of Juul's distinction but as two different sets of schemata *employed by players* during play (see van Vught *et al*., 2012). Players employ*fiction schemas* to make sense of, and guide their perceived and executed actions as part of a coherent fictional world. While *game schemas* allow the player to make sense of, and guide their perceived and executed actions as engagement with a rule constrained system (the game). During game-play players utilise both these schemas in order to guide and explain different elements of the game. Sometimes one set of schemas may be more prominently used than the other but most recent digital games will at least require the use of both these schema sets during game-play. Considering the different ways that game content can be attributed meaning with the use of different schemas is essential we believe when classifying games. When players for instance dominantly understand and guide their behaviour through the use of game schemas, they are likely to recognise that they are playing first and foremost. Studying the dominant use of schemas per age group may then lead us to propose very concrete recommendations for the classification of games. Further and more focused research is required on our part to support these recommendations with more decisive results.

Nevertheless, diary entries have already signified the use of these different schemas by participants. In one example, a participant commented on a moral dilemma encountered during play. Besides blood-thirsty zombies, *Dead Island* also presents the player with human enemies which the player has to kill in order to progress in the game. The comprehension of this event with the use of fiction schemas clearly produced a dilemma. However, since the player is *forced*to kill these human characters, the player finally complies and contextualises the event with a game schema that reinforces the manner in which the game put these opponents in the way of his objective requiring them to be killed.

I felt bad about shooting the policemen, and during this section I thought that I was on the wrong side … I tried to sneak around the policemen at one point, to avoid killing them, but they have an uncanny knack of spotting the player. After this I decided to simply shoot them. Even though I felt a bit bad about it, it seemed as if the game wanted me to kill them so I did … I don't recall the game supplying a good reason why I should kill the policemen either, other than that they were in the way of my objective. By this point I had come to dislike my character and had disassociated myself from him.

This example clearly shows the shift from the use of fiction to game schemas. In the end the player discards a fiction schema as he understands there is no fictional function to the characters individually and that their hostility is indicative only of the mechanics of the game. There is nothing to be gained from trying to connect to these hostile characters. He therefore decides to understand the process of removing such characters as simply overcoming another challenge that the game presents, quite similar in logic to the way that other forms of games operate.

Undeniable and Deniable Content

As the last example above shows, games occasionally require us to take certain (configurative) action or take notice of a specific element in the game because not taking that action or ignoring that element means automatic failure or enforced immobility. Leino (2007) refers to these elements as *undeniable* which constitute the built in physics of the game that players cannot deny without significantly decreasing the possibilities to act or progress further. An example of this is the *Call of Duty: Modern Warfare 2* (Infinity Ward) mission *No Russian* that requires players to tag along on a terrorist attack on an airport that leads to the death of many innocent civilians. Although the player does not actively have to participate in the killing, they are also unable to prevent it, as turning against the terrorists immediately leads to a failed mission.

On the other hand, games may also present us with *deniable* elements that we can ignore without such consequences. In the RPG *The Elders Scrolls V: Skyrim* (2011) for instance, the player can choose to pillage villages and kill innocent people and animals. However, the player does not have to do this in order to advance in the game. In fact, the game system punishes players for these acts by giving them a bad reputation that turns the other characters against them. Similarly, in *Dead Island* one of our participants stumbled upon a hidden hut containing some disturbing imagery. The fact that neither the other players, nor the research team had encountered this hut shows that this content is deniable since the other players were all able to finish the game without it. This example poses the question: what weight should be attributed to such content? The administration of game metrics in conjunction measures of physiological reactivity might provide a stronger indicator of patterns of play and the likely discovery and impact amongst game populations. By attending to deniable and undeniable triggers during play, there exists potential to articulate play as an interactive process with degrees of freedom.

Closing Arguments

It has become apparent from analysis of the diary entries that the attentional focus for participants in our study was more strongly related to player agency and the ludic elements of the game. By taking game schemata into consideration we have been led to re-evaluate the experiential qualities of game sequences. For *Dead Island* in particular it has been argued that game schemata or 'elements that defy conventional [fiction] schemata' disrupted player 'immersion in the text' leading them to assume 'an extra-textual perspective' (Douglas & Hargadon, 2001). In the words of one of our diary study participants:

> *It would seem strange to me that in a world overrun by zombies, people would be selling things, but money seems to be an easy game mechanic to utilize, even if it is unrealistic.*

We then suggest that because players are tapping into game schemas to understand the text they are not *as* involved in the violent fictional representation onscreen as a film viewer who draws solely on fiction schemata. Players instead revealed a different form of immersion, in their absorption in the web of manipulation, goal and meta rules

identified by theorists such as Frasca (2003). This is exemplified by one of our participant's appreciative assessment of the use of the stamina bar in *Dead Island*:

> *I believe these elements [the stamina mechanics] are added to give it [the game] that much more realism and to also increase your horror/stress/worry. It's all designed to heighten the urgency and fear you have, as a real human, fighting zombies.*

As Grodal (2000) for instance argues, the configurative activity of players make their affective responses to games much more dependent on their own active coping potential rather than on the passive appreciation of a character's coping potential (as in films). This may mean that possible "aggressive game-induced arousal is (…) more closely linked to the player's own activity and less directed at hostile others than in films" (p. 207). This suggests that game-play experience is an exercise in 'playful mastery' where, instead of the representational content, the level of skill is related to the elicited arousal of the player.

Revealing the exact implications of the distinctive experiential properties of game-play in regard to the experience of violent content obviously requires much more research evidence than we offer here. It is however research that seeks to support a more nuanced classification process for games. Studying the demands that games put on their players will require commitment to on-going theorisation and experimentation as the continuous evolution of games, game systems, players and gaming contexts will determine that 'impact' will continue to differ over time. We hope that by highlighting and structuring those elements of game-play that are currently unarticulated (or informally accounted for) within classification rating processes signifies an important first step in approaching the implications of violent game content in a more grounded manner. From here we aim to achieve further and more detailed accounts of actual, lived and directly reported experiences of play in order to bridge the gap between abstract knowledge already in existence in game studies and the more concrete needs of legislation in society.

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