Designing Ethics

- THE ROLE OF AESTHETICS IN ETHICAL GAMEPLAY

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Media Technology and Games – Design and Analysis

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Contents

Abstract

The aim of this thesis is to examine the influence of aesthetics on ethical gameplay. Research has traditionally focused on game rules and mechanics as the most important elements in the creation of meaning in games, but this thesis wishes to draw some attention to the game's semantic layer and its contextualisation of the procedural elements. As computer games mature and become the medium for more sophisticated expression and meaningful interaction, a need for a comprehensive computer game aesthetics becomes apparent.

This thesis will define ethical gameplay, and show how designed aesthetical affordances can be used in its design. By drawing on theories of player modelling and visual design, the thesis will show how designers can get to know their audience, and create gameworlds that are flexible and consistent fields for creative player expression. By adapting the concept of visual modality to digital games, this thesis will suggest a powerful tool for a shared creation of meaning and the challenging of player values.

Through an ethical and aesthetical analysis of two case studies, the influence of aesthetical design choices on the ethical charging of a game's infosphere will be exemplified.
Finally, this thesis will present a report on the design and development of the ethical resource management game *Banality*, a Facebook-based game that explores the concept of the banality of evil.

Introduction

Motivation and Research Question

Like many other game designers and analysts, I have spent a good part of my life in front of a computer, playing games. Born in the early part of the eighties, I was brought up on Commodore 64, Sega and Nintendo, and there has really been no looking back ever since.

It is difficult to say why digital games seem to be drawing our attention away from any toy we have ever played with. A good answer would be to say that the computer is simply the one, man-made machine that challenges the human imagination the most. Over the years, computers have developed into extremely powerful tools for simulation, and everything we have ever dreamed of seem possible in the digital sphere.

Games have matured radically in the last five to ten years. Going from being a pastime activity for children and teenage boys, games have developed into a global, cultural, phenomenon with record-breaking sales numbers and an incredibly enthusiastic fan base. Games are no longer (only) about Italian plumbers. They have become a medium for artistic expression, and facilitate experiences that can be both heartbreaking and vomit inducing. As games continue to claim new cultural territory and attempts to treat subjects and themes that have traditionally been left to other more serious media, it seems to me that the need for a computer game aesthetics becomes more and more immanent. A computer game aesthetics could give designers a way of validating their design choices and reaching their players more efficiently, but also help players interpret more and more sophisticated and multi-facetted gameworlds.

Ethics in games seems to be nothing new, but it does seem that its increasing attention by both scholars and designers could be seen as that the media is trying to mature with its audience. The potential of games to create meaningful experiences has often been attributed to their procedural qualities, but it seems that proceduralists are slowly opening up to the fact that only little meaning can be created without visual aids.

Ethical game theory has already suggested the importance of a contextualising semantic layer for an ethically charged infosphere, and this lead me to my main research question:

What role, if any, do aesthetical design choices play in the communication of design concepts and the establishment of ethical gameplay?

It is my hypothesis that aesthetical affordances in games, and especially their level of modality, help establish a contextualising semantic and cultural level of abstraction on top of the procedural level, creating an ethically charged infosphere, which players experience as moral players.

In order to investigate and examine these claims, I will make use of the theoretical framework for ethics in games by Miguel Sicart, and combine it with the theories of visual design by Gunther Kress and Theo van Leeuwen. To show how player behaviour can be modelled and designed for, I will use Alan Cooper et al. and their essential work on the importance of user-models when designing for interaction, and combine it with the detailed work of Alessandro Canossa on both play-personas and consistent gameworlds. To add to Canossa's points, I will use game design consultant Chris Bateman, and his practical reflections on game design as an act of make-believe.

Structure of the Thesis

I will start by assessing the scope of the thesis.

In the chapter "Defining Ethical Gameplay", I will, based on the ethical theoretical framework developed by Sicart, examine and define the concept of ethical gameplay. Acknowledging a game as an infosphere with ethical values imprinted in its design, the thesis will treat games as designed software systems experienced by moral agents, and explain how and why players experience a choice or dilemma in a game as an ethical one.

In "Designing for Players", I present tools for modelling player behaviour. By drawing on Cooper et al.'s abstract construct of *personas* and combining it with Canossa's more game-specific *play-personas*, I will suggest a way to anticipate and design for creative and expressive player behaviour, and to understand the goals and motivations for the player.

The chapter "Aesthetics in Digital Games" is about the player's visual interpretation of the gameworld, and the many cues and properties involved in this process. By adapting Kress & van Leeuwen's notion of *modality* to digital games, I suggest a powerful way for designers to share their

visions and design intentions with the player, as the aesthetic *modality markers* is an associative tool for involving the cultural embodied player. Based on work by both Canossa and Bateman, I will argue for an emphasis on consistency and imagining-prescribing props in the gameworld, as it helps guiding player behaviour.

In my case studies I will utilise the theories presented in the thesis, in an ethical analysis of two retail games, namely *Heavy Rain: The Origami Killer* (Quantic Dream 2010) and *Call of Duty: Modern Warfare 2* (Infinity Ward 2009), and link the thesis to the practice of design, through a reflective description of the development of the Facebook-game *Banality*.

The discussion chapter will treat ethics and aesthetics in relation to each other and argue that ethics depends on aesthetics. It will sum up and reflect on the lessons learned from the case studies, and discuss the role of the digital simulation in ethics.

After having concluded, I will give a perspective on the role of this thesis in its field of research.

Scope of the Thesis

In regards to ethics, this thesis makes use of the theoretical framework developed by Sicart. This framework is based in the fields of virtue ethics and information ethics, and they appear to be especially well suited for an ethical analysis of digital games. I will therefore not go into other ethical theories like duty ethics or consequentialism, though they would no doubt also have something to add to the research field.

This thesis will not present a normative evaluation of ethics in games. The point of this thesis is not to determine if games are ethically correct or not, but instead to examine if they present interesting ethical dilemmas to their players. With this thesis I wish to put the interests of players and designers first, as my main objective is to suggest and encourage the development of interesting and compelling gameplay. I wish to examine if a framework for ethics and aesthetics can help mature the game genre and add value to the experience of games.

In regards to aesthetics, this thesis has its basis in Western culture, treating Western games in a Western aesthetical context. Though some principles may be the same in other cultures, this thesis

will only claim its points to be valid in a Western society. As I argue in my analysis of computer game aesthetics, the way we interpret and react to aesthetical affordances in games is tied very closely to the social, historical, and cultural environment in which we live.

In my report on the development of the Banality game, I will not be making use of empirical data such as playtest analysis or usability testing. Instead I will provide a designer's insights and reflections on both the development phase and the initial testing of the game.

Defining Ethical Gameplay

When we set out to look for ethics in computer games, it is important that we understand that ethical tension is not found in the game object alone. Computer games can have moral values imprinted in their design, but from a computer ethics point of view it is only the values that the player experiences in a game that are important. A computer game is a moral object that is actualised by a moral agent. It is a design intention that is executed by a moral agent. As Sicart (2009a, 63) explains, "because the player is a subject that exists in a game situation, and because this subject operates by interpreting this situation both within the ethics and culture of her experience as player and as a human being, the player as subject can legitimately be considered a moral being." The ethics of computer games are found in processes and in relations. It cannot be defined as placed in either the game or the player, but in the ways that the player interacts with the game system, and especially in the way the player experiences this interaction. When we talk about ethics in computer games, it is important that we consider games both as objects *and* as experiences, and that we understand the process that links the two. And we also need to understand the player as a moral being, a moral agent within the game system. When a moral agent is interacting with a state machine, an ontological tension will inevitably arise between the player as player-subject within the gameworld, and the player as a mere input provider for the system. It is therefore important to understand games both as ontological *designed objects*, as phenomenological *designed experiences*, and the process of creating an experience through human-computer interaction; the game being *played*.

In the following I will explain why games should be regarded both as a designed object and a designed experience, and I will describe how the player becomes a player-subject and a moral agent within the gameworld. Through the use of virtue ethics, I will analyse the concept of the *virtuous player*, and by applying Sicart's theory of the player *phronesis* in the *ludic hermeneutic circle*, I will illustrate how a player's game interpretational skills are matured through playing games. I will explain how they are affected both by the player-subject, the player repertoire, his personal culture and history, and the community to which he belongs as player. With Information Ethics I will explain why games can beneficially be regarded as so-called *infospheres*, and why ethics in computer games is found in the *Gradients of Abstraction* (GoA) in these infospheres.

Games as Designed Objects

The design of a product or an object is fundamentally an ethical process. In the book from 2007 *About Face 3 – The Essentials of Interaction Design*, Cooper et al. express the ethical concerns regarding interaction design, as it is sometimes the process of designing systems that have fundamental effects on the lives of people. Though digital games may seem to be an innocent pastime activity, Sicart (2009a) claims that digital games can affect our lives and values outside the game, as we take away as much from the game, as we bring to it.

Digital games as objects differ from other games, in that they are facilitated by computers. Computers allow players of digital games to interact virtually instantly with the game and the gameworld. They are able to effortlessly and seamlessly store and manipulate vast amounts of data, and they allow players to communicate and interact with each other and experience the same game across continents. But since it is the computer that holds and administers the digital game, it becomes a participant in the game situation, a participant that has absolute power and imposes its rules on the player. Whereas most analogue games can be said to be a collection of props for a player-to-player interaction with negotiable rules, what happens in a digital game is that players interact with a pre-conceived, rigid and non-negotiable design.

As I will discuss later, digital games are not only designed objects, they are designed and intended experiences. In other words: The design intention *is* the player experience. The designers intend for the player to have a certain successful experience with the game. In order for a player to have a successful experience, it is important that he understands the rules of the game, cares enough for them to obey them, and finds the game interesting enough to finish the game session in an orderly fashion. Because there is an intention, it is safe to say that there are also values embedded within the design of the object. The values embedded in the design are realised in two ways, namely in the rules system and in the contextualisation of these rules by the semantic level, the gameworld simulation.

Sicart (2009a) presents an analytical approach to digital games that is based on analysing different *Levels of Abstraction* (henceforth LoA). The approach bears resemblance to that of the hermeneutic *close reading* in literature analysis, as it separates a gameplay element or instance from the rest of the game, analyses it closely, and then puts it back into the context of other instances or the game as

a whole, using the analysis of the instance to analyse the whole. Digital games can roughly be separated into two main LoAs, namely the *procedural level* and the *semantic level*. The procedural level is the formal elements that constitute a game structure; the rules system, the direct interaction between agent and system through game mechanics, and the way the state machine evaluates this interaction as more or less successful. In the historical ontology of games, researchers have had a tendency to emphasise and focus on the procedural and systemic level of games, as it seems inherently more quantifiable and definable than the semantic level. This thesis bears no false hope of defining a universal ontology of digital games based solely on their semantic layer, as it will adopt Sicart's hermeneutical approach to gameplay analysis. As Sicart (ibid., 25) explains: "games can be analysed as systems, as fictional worlds, as both, and as the ways they interrelate", again pointing to the importance of regarding LoAs in relation to other LoAs in a so-called *Gradient of Abstraction* (henceforth GoA), another term coined by Sicart. This thesis will take the semantic level of digital games as its main research subject, but recognising that ethical tension lies in the relation between LoAs, it will constantly be regarding the semantic level as contextualising the procedural level.

Games as Designed Experiences

When we talk about games it is inadequate to talk about them as mere objects. Games need players to exist. Sicart (2009a) expresses a concern that many game designers still regard the player of their games as more or less passive input providers and triggers of their scripted gameplay events. Only with active player interaction can we understand and analyse the ethical configuration of a game experience, as the game simply needs to be experienced. A game like *Heavy Rain: The Origami Killer (*Quantic Dream 2010) cannot be said to be simply a set of rules or winning conditions, nor is it its quicktime-event mechanics. The game should be experienced as a whole, as a player's designed experience of a procedural layer communicated through a semantic one. In fact, the rules and mechanics of a digital game is seldom stated on the box or in the booklet[1], but are instead communicated through the gaming experience, either through a tutorial, through tool tips or during the actual play session. As mentioned before, when mechanics do appear on the box or in adverts, they are oftentimes contextualised through the semantic and narrative layer of the game, and instead of being informed of the game's strict evaluation of our provided input, we are told to *shoot*, *drive*, *investigate* etc. Though games are ultimately systems, game designers do more than just design a

[1] Instead, the box and booklet are oftentimes used to establish and sustain the semantic layer, through the use of pre-game back-story text and suggestive imagery and graphics.

set of rules. They also need to design the facilitation props and settings for those rules, creating a system that can be experienced in a meaningful way.

The Game as Simulation

In order to convey the rules of the game, teach it to the player, and facilitate a successful playing experience, computer games make use of more or less extensive graphics and other means of aural and visual communication. Together with game narrative and other fictional elements, it forms a semantic layer that reaches into the real world with its real world values, as the game resembles our world to at least some detail. The amount of detail and level of realism is part of the game's visual *modality*, which I will explain in greater detail later in this thesis, as I address the topic of aesthetics in digital games. When we add a semantic level on top of the procedural one, the rule system becomes a *simulation*: "In short, the procedural level comprises the game as system, while the semantic level communicates the state of the game to the player by means of culturally relevant metaphors" (Sicart 2010a, 4). The game rules and mechanics are contextualised, providing the moral agents with multiple points of cultural and ethical reference, which they can then use to construct their own ethics within the infosphere. In so-called *abstract* games like *Tetris* (Pajitnov 1985), players do not have to understand a semantic layer to interact with the system successfully, and therefore it is virtually non-existing. Tetris cannot be called a simulation, as the player is not simulating to fit pieces of colourful pixels together, he *is* in fact fitting them together. In *Call of Duty: Modern Warfare 2* (Infinity Ward 2009), when a player manipulates his Right Trigger-button on his XBOX controller at the right time, he too manipulates coloured pixels, but the semantic layer of the game creates a simulation of the killing of an enemy soldier. Whether it is a soldier, an enemy soldier, or even a Russian, enemy soldier is a matter of the simulation's *modality*. More on this later.

Sicart (2009a) claims that rules prevail over gameworld representation when making an ethical analysis of games, but as he also explains, the truth is not found in a single level of abstraction alone. Instead gradients of abstraction, what happens between the LoAs and how they correlate to each other, is key to understanding the ethical charging of an infosphere. In this thesis I will focus mainly on the semantic layer of games, and uncover how the designer's decisions in regards to the metaphors created are ethically relevant and vitally important in any analysis of ethics in games. I will further claim that visual design choices and means of communication have an equally important role to play in the ethical charging of an infosphere.

This thesis will utilise two main theoretical fields of ethics in the description and analysis of ethical gameplay. One is *Virtue Ethics* and the other is *Information Ethics.* In the following I will explain the concepts of both and analyse how they individually apply to the study of ethics in games.

Virtue Ethics and the Virtuous Player

Virtue ethics has proven to be an extremely flexible ethical theory, useful even in our day and age, though it was formulated thousands of years ago by Greek philosopher Aristotle. Virtue ethics is about the development of moral characteristics and practices that make human beings aspire to the good. In relation to computer games it centres itself on the act of play, and the player's aspiration to being a good and *virtuous* player (Sicart 2009a). Virtue ethics places the character of the moral agent in the centre of attention, rather than, for example, the consequences of the agent's actions. It concentrates on the moral fibre and behaviour of the agent or decision maker.

In ethical game studies, virtue ethics is of the most use when applied to the relation between game object and player-subject. Focused on the *act* of playing, virtue ethics will evaluate the moral only of values *experienced* in the game, thereby making hermeneutics a suitable theoretical framework for analysing gameplay ethics. Acknowledging this, Sicart (ibid.) introduces the *ludic hermeneutic circle*, a visual representation of the conversational nature of the act of play, derived from Gadamer's hermeneutical phenomenology. Vital to the understanding of the hermeneutic practice of playing games is the concept of *ludic phronesis.*

Ludic Phronesis

In virtue ethics, the virtue of practical thought is often referred to as *practical wisdom* or *phronesis*. Phronesis can be explained as the capability to both reach a certain end, *and* be able to wisely reflect upon and determine that end. When we analyse games we talk about *ludic phronesis*, the process of the player determining which choices can further develop his virtues as a player. When analysing ethical gameplay, we should regard ludic phronesis as "the operative ethical knowledge present in the act of playing games, which evaluates the morality of the player's actions" (Sicart 2009a, 113). The ludic phronesis operates both within the player-subject as a kind of evaluator and determiner of best practices and choices, but it also acts a kind of ethical *kill switch*, as it dismisses the player-subject in the instance his practical wisdom deems the choices offered to him/her as unethical. In other words: The moment the game experience no longer facilitates the development

of our player virtues, we simply stop being players. This makes ludic phronesis a vital asset to players, and, as Sicart explains, it should be regarded as "an ethical resource in the process of interpreting the game experience" (ibid., 117). It is in the interplay between the game system, the player's ludic phronesis, and the player as a member of a community where the ethics of computer games is found. Values embedded in a game's design may be neutral from the perspective of the design intention, but all that really matters is if the players and their community interpret the values as neutral.

As our ludic phronesis is created and refined through time, not all games are suited for all players at all times. It requires a certain moral maturity to play an extremely violent game like *Manhunt* (RockStar North 2004), as the game should be a gruelling ethical experience of very limited and brutal agency, and not just a field for violent expression. This is in line with Kress & van Leeuwen's (2006, 11) claim when talking about visual communication that the interpretational skills in this regard is also something we develop over time. A small child is therefore not as able to acknowledge and interpret the finesses of computer game aesthetics, as the mature and experienced, culturally embodied player.

The Ludic Hermeneutic Circle

As explained earlier, the analytical approach with LoAs and GoAs as main subjects of analysis bears some resemblance with that of the close reading and hermeneutic analysis in literary theory. Playing a game is a process of ethical interpretation and could even be said to be a hermeneutic approach to the act of playing. Sicart introduces the ludic hermeneutic circle, a "model for describing the process that takes place when an embodied, cultural human being becomes a player, and how that player relates to her subjectivity, the game experience, and the subject external to the game" (Sicart 2009a, 117). The idea is that when we enter a game as preconceived and culturally embodied players, we interact with the game object and attempt to constitute a player-subject within the game. While creating this ethical persona we interpret the embedded values of the game and attempt to make our persona ethically coherent with the gameworld. It is the game system that conditions the player-subject. At first we uncritically accept the affordances and constraints of the game, and in this *zero state* we create our initial player-subject. Even though much of the ethical responsibility lies with the player, it is the game design that decides the nature of the zero state, the way the initial player-subject is created. During this process the player has of course the ethical

responsibility of accepting and experiencing the design's embedded ethical values, but sometimes the origin of an ethical dilemma can be tracked back to the design of the game.

According to Sicart, the designer's ethical responsibility in regards to the value system of a game is rather limited, as it is the players and their communities that are ultimately responsible for the success of the game experience. The next step in the ludic hermeneutic circle is the ethical reflection on this player-subject and the act being committed to the power structure of the game. The reflective player reflects on the reactive player and his ludic phronesis is developed in the process (Sicart 2010a). The player also reflects upon the player-subject in relation to the community, as our virtues within the game are tied also to how we perceive ourselves as community members. As players we are part of a player community. Some communities are obvious and voluntary, others are culturally determined and less visible. If we decide to go online with our Xbox 360, even if it is just to download game updates or even music videos, we immediately become part of a global gaming community, having our individual game achievements and gamer points put out on open display to every community member. The Xbox's achievement system and the Playstation 3's trophy system make our in-game activities an act of exchanging information with a global online community, and what we decide to do in a game will become a property of our player-subject. We may hesitate from using cheat codes and the likes, as we want to be virtuous in relation to the community. Because we all share a common culture as players, we can share game experiences with each other even if we have played different games.

Finally, the moral being outside the game reflects on the player-subject and its actions within the game, and is affected by it. If we regard the player as *ethical skin* we understand the player-subject as something that can both affect and be affected at the same time. Ethical skin "keeps the culturally embodied being both together with and separate from the player-subject" (Sicart 2009a, 79). So when we have taken a turn through the hermeneutic circle, we have gained a new level of understanding, an upwards movement in consciousness which has made some literary theorists speak instead of a *hermeneutic spiral*, as we never return to the same spot where we started.

By understanding virtue ethics in games as the attempt to create a virtuous player-subject in the interaction with a game system, we gain an important framework for understanding why players should be considered moral beings and why games can be ethically challenging experiences. The

nature of the player-subject is not determined purely by the game's winning conditions and the pursuit of being victorious. The virtuous player both can and will try to win by playing virtuously, exerting his ludic phronesis in order to determine the strategies and decisions best suited for this purpose. Virtue ethics is a constructivist approach to game ethics, but it can seem very concentrated on the player. In order to understand bigger and broader informational systems, and our moral responsibility within them, it can be fruitful to look to other parts of the field of ethics.

Information Ethics

Another field of ethics that proves equally important to ethical game studies is Information Ethics, as it is tied closely to the development and application of information technologies. It deals with both moral agency and infosphere environmental issues, as it takes into account the nature of computing as well as the presence of human and software agents in digital environments (Sicart 2009a, 128). Information ethics defines existence as informational existence and all agents as data entities. This makes the infosphere a key concept in information ethics. It is defined as the whole, the system with all its information objects, agents, messages and any mutual relation between these. Agents are put in the infosphere as *parts* of the infosphere where every action is an exchange of information within the sphere. Because the welfare of the entire system is tied to the well-being of all beings within the system, they are related morally to each other, and every exchange of information is potentially harmful to both the informational balance of the infosphere and the agents that operate within it, and it therefore calls for ethical responsibility and consideration.

Floridi and Sanders' concept of the *homo poieticus* is the notion of the ethical duty we as human agents have to try and produce ethical environments (ibid., 130). Just like virtue ethics, information ethics is a constructivist approach to ethics, but it expands the moral scope to include "any informational being that is present and has importance for the well-being of the infosphere" (ibid., 130) When we enter the gameworld, we construct and shape our informational being based on our values, but also on the strict set of affordances and constraints provided by the designed environment that is the infosphere. This implies that the game's design has agency over the players as informational beings, and this poses an ethical dilemma that should be analysed. Sicart (2009b) suggests the insertion of constructivist agents within an infosphere as an ethical design choice, because the development and consumption by these agents will create tension, as they affect other agents' informational being and the overall ethical informational balance of the game. Every data entity in the infosphere has a responsibility for the over-all well-being of the information system.

This *distributed responsibility* among the infosphere's informational objects can be used to tie information ethics to the concepts of virtue ethics, as each informational being should treat its responsibility in relation to its virtues. But where virtue ethics focuses on the ethical development in the player, information ethics expand the ethical responsibility to a common effort where all information entities should strive to act in a virtuous way within the infosphere.

The design of the infosphere is greatly important to the way we understand and manage this distributed responsibility. We are affected by other players' informational natures, but even more importantly; we are affected by the way in which the infosphere facilitates and communicates the interrelations between informational beings. The infosphere communicates these interrelations through the fiction of the semantic level, and therefore fictional elements that are relevant to the configuration of the informational exchange should be subjected to ethical analysis. The infosphere should communicate through representational elements and metaphors that the reflective player is able to interpret and understand, presenting him with props prescribing imaginings (Bateman 2010a, 2) that are ethically relevant to the game experience. But that is not all. An important part of a good ethical game design should be to afford the players the ability to exert their *creative stewardship* within the game, and make it possible for them to do so in a responsible and ethical way without breaking the logic of the game. Along the lines of virtue ethics, players are going to want to be creative within the game and develop strategies and improve their skills as players, and we should allow for them to do so by giving them both freedom and responsibility within the infosphere. The idea is that if we design a game infosphere where players can play around and be creative without breaking the fiction or the logic of the game, they will care for the gameworld and get emotionally and ethically involved with it.

Summary

Ethical gameplay is the embedded values, realised by the constraints, the afforded practices and the encouraged behaviour that both the player-subject *and* the embodied, cultural human being will have to evaluate in order to have a successful game experience. This process of interpretation is linked to the ethical nature of players, and it is illustrated through the ludic hermeneutic circle. The player-subject is created as a culturally embodied player encounters a game system, and refined as the player is forced to evaluate the way that system allows for the player-subject to be created. This evaluation creates a practical wisdom, a ludic phronesis, which becomes an important tool in the player's development of game strategies and ways to be both victorious *and* virtuous in his

interaction with the game. The player will strive to be a virtuous player, bringing his real world values and virtues into the game and evaluate how the game system responds to these virtues.

When we regard game systems as informational ecosystems, the so-called infospheres, we expand the player's moral responsibility and change the ethical focus to include more than just the player. Infospheres include both the game system as informational environment, the player as informational being in relation to both the system and other agents within it, and the player as an agent with creative and ethical stewardship. The way the infosphere helps shape the player as an informational being is ethically questionable and should be subjected to ethical analysis. So should the way it facilitates and communicates informational exchange between its agents.

It is important to note, that it takes effort to assert one's ethical capacity. If it is not necessary, players will tend to act strictly upon player logic and not ethical judgement. Along with theories of the banality of evil, this is one of the main ideas behind the game developed as part of this project, the Facebook game Banality. I will return to that later in this thesis. Next follows a section with the aim of presenting tools for modelling player behaviour, in addition to analysing player goals and motivation.

Designing for players

Having defined ethical gameplay, it is time to look at ways in which we can implement and use the concepts from the framework for ethical gameplay in our game design. This part of the thesis will take a practitioner's approach to ethical gameplay, and uncover tools and concepts that can be used in the development of games with ethically charged dilemmas and decision-making. Based on the work of Canossa, I will analyse the concept of the implied player and how the modelling of the implied player can be used to uncover the design intention. I will explain how the implied player relates to the zero-subject of the ludic hermeneutic circle, but argue that designers should not expect anything but a playful attitude and behaviour from the player. In the design process they should make use of a variety of player models, the narrative structures of play-personas, in an attempt to create gameworlds prepared for a wide variety of player behaviours and expressions.

When we regard games as designed objects, objects that are meant to be used in a successful manner, we are able to deduct the optimal player behaviour from a strictly formalistic point of view, regarding the player as merely an input provider for a state machine. A computer game is an *ergodic* structure (Aarseth 2007), a designed system of rules that creates a gameworld and evaluates the way it is experienced. By analysing *how* the rule system is designed, and *how* it evaluates player performance, it is possible to uncover imbedded moral values in the designed system, and determine if they have any influence on the behaviour of the *implied player*.

The Implied Player

The concept of the implied player is an adaptation of literary theory's concept of the *implied reader*. As Canossa (2009, 32) formulates it: "The implied reader is essentially a component of the structure of a text anticipating the presence of recipients without necessarily defining them." In Canossa's (ibid., 33) definition, the implied player is "seen as a boundary imposed on the actions of the player by the game" both by the game rules on the procedural level, and by the game's aesthetic elements in the semantic level. If there is, for example, no jump mechanic in the game, the implied player will never be allowed or asked to jump. If the game is black and white, the implied player will never be allowed or asked to colour differentiate in the game. The implied player can therefore be seen as a negative definition of in-game possibilities, hence the image of the boundary. Aarseth defines the player as "a person subjected to a rule-based system; no longer a complete, free subject with the power to decide what to do next" (Aarseth 2007, 130). This seems to coincide with the

creation of the player-subject that Sicart witnessed in the so-called zero state of the ludic hermeneutic circle. When the player-subject is initially created, it will have to accept the game's affordances and constraints as necessary boundaries in order to come into being. It becomes the "initial condition of the player as subject for that game experience" (Sicart 2009, 118) and takes on the role of the implied player.

Looking further into literary theory, we find more concepts adaptable to game studies. "[Eco] introduces the "model reader" as "one who plays your game" and accepts the challenge of interpreting complex ideas." (Canossa 2009, 31). Though it could be just a reference to the playful nature of the author, Eco draws a parallel to games, which becomes quite useful when we examine design intention, player experience and the gap in between the two. The last part of Eco's definition leaves room for interpretation in the reader. The author can only expect the reader to interpret, not interpret correctly. However, the formulation "plays *your* game" implicates that the author has a say in regards to the basis of the interpretation. It brings *intention* back into the interpretational space.

The Model Player

If the implied player is the player, and the behaviour of this player, which the game expects and needs in order to "exercise its effect" (Aarseth 2007, 132), then the *model player* could be said to be the player needed for the game to exercise the effect the designer intended. It is the player model that has the most successful experience with the game, seen from the perspective of the design intention. Eco's definition has arisen from reflections on a literary practise, and as such the model reader is supposed to be apparent to the author during the writing process. In the same way game designers should keep their model player in mind when designing games. Designers design for a certain experience in the player and, consequently, the model player works as an illustration of the model behaviour encouraged by the designers. That is, the design intention.

Games as experiences are built between designers and players. It is the designers that provide aesthetic and ludic affordances for the players, and these affordances contribute in shaping player expression (Canossa 2009, 51). However, if we buy into the idea of the poietic player with a strong sense of creative stewardship, is it not naïve for game designers to even suggest that their designed, intended experience should ever be picked up by a constructivist player, who would instead be expected to invest his energy in creating his entirely subjective game experience? According to Aarseth, game studies have for some time favoured the model of the *active player*. He quotes Heide

Smith by stating that the active player is “actively engaged with the game or gamespace in ways often not prescribed or predicted by the game designers” (Aarseth 2007, 131). The active player does however seem to be a statistical minority and most players widely follow the game directions in order to have a successful experience. This seems to sustain Bateman’s rather provocative statement, that game designers are generally tremendously imaginative people and that they cannot expect their players to be as imaginative (Bateman 2010, 2).

A lack of imagination is however not the only reason why players often behave the way they were intended. The poietic player is a part of an infosphere with a distributed responsibility, and should therefore act in a way that is morally sound and caring for the well-being of the overall game system and which does not break the game’s logic. I will later explain how the coherence and relevance of the gameworld make players less prone to *transgressive play* (Aarseth 2007, 132), as the virtuous player will try to build and sustain a successful game experience, even if it means letting himself guide towards the experience intended. Still, if we take the concept of the implied reader from literary scholar Wolfgang Iser and apply it to game studies, the implied player is a construct and should not be identified with any real player (ibid., 132). As game designers are oftentimes required to make games for real players, they have to take into consideration a much larger field of possible player behaviour. Based on the work of Canossa, I will argue that game designers do not have the luxury of expecting specific player behaviour. Instead they will have to model a wide variety of behaviour patterns and courses of action, in order to design successful experiences for others than the model player. This way they can improve the success rate in game experiences, and allow for more meaningful application of creative stewardship from the players.

The implied player proves very useful during gameplay analysis, as designers can of course fail in conveying that certain experience, and because it is only what is actually experienced by the player that matters, the implied player is a key concept when understanding the forming of the zero-subject in the ludic hermeneutic circle. However, when we take a practitioner’s approach to game design, neither the implied player, nor the model player appears to be of any particularly good use, as designers will have to have a relationship much closer to the players of their games than they can really have, especially when designing a game with millions of players in the target audience. Instead they should make use of multiple, somewhat archetypical player models. By combining Cooper et al.’s personas with Canossa’s more game-specific play-personas, I will illustrate the

advantages of having a variety of player behaviours in mind, when designing gameworlds, as it will prepare the design for multiple different player expressions.

Play-Personas

Games demand players in order to exist and be games (Sicart 2009a, 111), at least when we regard games as designed experiences. As Canossa explains, there is "no realized game if the player takes no action" (Canossa 2009, 35). When a player interacts with a game, the environment of possibility (what Canossa calls *type*) becomes an actualised game experience by that particular player (what Canossa calls *token)*. In the process of actualisation from type to token, players have the possibility to express themselves by their choices of action. The gameworld is therefore a "field of expression" (ibid., 35) Therefore, as convenient as the notion of the model player would seem from a design perspective, the reality proves to be much more complex and facetted. Designers cannot expect players to play and experience their game as perfectly as the model player, nor can they anticipate the exact reception of the game with its target audience. Even when disregarding directly subversive player behaviour, designers should still expect each player to have an individual experience with the designed object that is the game. Each player-subject is unique, as it is created based on the unique culturally embodied player that interacts with the game object. This, however, does not mean player behaviour cannot to at least some extend be modelled and predicted. During the design phase, an abstract and narrative construct called play-personas can help designers create relevant games with a high level of consistency between its rules system and aesthetical affordances.

Play-personas seem to be linked to some extend to the notion of the archetypes, as they are initially very abstract and narrative constructs, designed to invoke recognition in the designer and give him answers to any persona-specific design questions. An archetype is a symbol that is universally recognised by all. As I will explain later in regards to Kress & van Leeuwens concept of modality and Cooper et al.'s notion of aesthetical design elements visual properties, no one symbol is universally known, nor can anything be said to be an absolute truth across cultures and social groupings. This of course implies that the designers should be in some way culturally linked with their target audience, but a great deal of research and player observation should also go into the construction of play-personas. Personas are based on real people. They are *personifications* (Cooper et al. 2007, 81). Though it could seem the amount of play-personas could be equivalent to the amount of possible behaviours in the game, in reality the amount of envisioned personas are limited by relevance in accordance to the consistency of the gameworld, and the overall design intention of

the game. As Canossa (2009, 33) explains: “Play-personas do not claim to capture universal features of players nor they are deduced from abstract principles, instead they emerge from the aesthetic and ludic structure of each single game.” This also means that while play-personas are initially created as quite abstract and narrative constructs, they should prove measurable through quantitative measuring on game testers’ use of game mechanics and use of the spatial environment. Because games, like other products, are often designed to accommodate ranges of user behaviour and aptitude, we must identify and construct an entire set of personas. The initial play-personas should be constructed in such a way, that the designer is never in doubt about how that specific persona will react to a given design choice, even if the reaction is not to react.

Goals and Motivation

Canossa presents the development of *Tomb Raider: Underworld* (Eidos Interactive 2008) as an example, where developers used the very abstract construct of the *athlete*, the *grunt* and the *chess-player* as their initial play-personas. To each question in regards to overall design decisions, the play-personas delivered quite precise answers to how each persona would interact with the specific part of the designed object. The notion of the *athlete* should invoke such clear pictures and associations in the design team that they are able to at least make a qualified guess, as to how the athlete would interact with their design. A persona’s course of action is often rooted in the need to achieve or obtain something, and Cooper et al. (2007, 83) explain how personas must have both a *goal* and *motivations* that drive their behaviour. Goal and motivation are concepts that can be tied to ethical decision-making. As virtues are essentially good habits of behaviour, and virtue ethics is about developing these habits of behaviour, the design of our personas’ goals and motivations are of great importance in the design phase. If we design for a persona with unethical motivations or goals, chances are we will create unethical game design. As I will explain later, when going over the design process of Banality, we deliberately designed for a persona of questionable virtue, in an attempt to encourage unethical behaviour.

Law et al. (2009) also deal with goal and motivation as a component of their model for ethical decision-making. The model consists of five major components being; *goal*, *method*, *degree*, *knowledge* and *motivation*. The goal is the behaviour, the end, and the method is the means to that end. Degree refers to the intensity of which we want to exercise the method, and knowledge refers to our comprehension of the consequences of our actions. The motivation is the big “why?” Why do we do what we do? When we acknowledge Sicart’s claim that players are moral and virtuous

beings, then both the goal and the motivation of our virtuous play-persona should be to be virtuous. With this in mind, based on a full set of play-personas, we can design games that allow for multiple ways of being virtuous within the gameworld, and create interesting ethical dilemmas of balancing goals and motivations with method and degree.

Games are also designed experiences, and as such the interaction and the experience is itself the product. We do not want our players to simply complete the game; we want them to assert an effort in the game experience and care enough for it to sustain it. We want to design a basis for interaction that poses interesting and even ethical dilemmas in the player. Cooper et al. suggest developing *scenarios* around the personas, so that very specific problems of interaction can be avoided, and so that the most commonly requested goals can be reached more easily. Though their theories are regarding the rather broad field of *interaction design*, parallels can be drawn to game design. Scenarios, unlike personas, are quite concrete narrative descriptions of events, designed to give designers an idea of how their product can and will be used. Scenarios use narrative as a design tool. The approach has been described as a "method of *design problem solving by concretization*" (Cooper et al. 2007, 111), a way of putting objects and users into a concrete setting and sequence of events, to try and discover problems in the interaction. Personas in this respect is a kind of subjectivization, where the designer takes on the skin of a potential user model, and tries to imagine how the persona will interact with the product. This is not unlike the hermeneutic design approach required when designing ethical gameplay. But where game design differs from other interaction design, is that games are not just designed objects that should be interacted with successfully and effortlessly.

Summary

The implied player is the initial condition for the creation of the player-subject within a specific game experience, and is as such important in the context of ethical gameplay. However, because players possess such high creative stewardship, the implied player serves best as an indication of the model player, the player behaviour best executing the game's design intention, the intended optimal experience of the game. Personas are valuable tools during the design process of any product calling for interaction, and Play-Personas should always be a part of a game development process. Especially if we want to uncover and design motives for our players, either because we want to expand and refine the field of player expression, or because we want to encourage certain

behaviours in the game, or even if want to challenge the poietic capacities of players, by expanding or constraining them.

I will return to the concept of play-personas again later, when describing the development process of the Facebook game Banality. But first I will direct my attention to the player experience and look at how we as players interpret and understand the aesthetics and semantics of the game infosphere, thereby uncovering valuable tools for both game design and analysis.

Aesthetics in Digital Games

When we first come into contact with a gameworld infosphere, we often have culturally shaped ideas and preconceived expectations about what we are about to experience. The market for games is extremely broad and versatile, and games are previewed, reviewed and even beta-tested, in order to be marketed successfully and for players to discover the games they are most likely to enjoy. Before we decide what game to play, we read about the game. Maybe we look at the glossy screenshots or the list of game features on its cover. Maybe we are intrigued by the game's catchy tagline[2]. Either way, our player-subject is often both well prepared and pre-shaped to fit the affordances of the game's infosphere. We are aware of at least parts of the design intention and how we are supposed to successfully experience the game: "Computer games are about becoming the player that the game allows, directs, and suggests we become" (Sicart 2009a, 82) as Sicart explains. A game that is not played remains nothing but a designed object. But when the game is played it turns into an *experience*, which furthermore facilitates the subjectivization process that brings into being the player-subject. In order to experience the game successfully, the player draws on preconceived knowledge and expectations, in addition to cultural heritage, interaction experience, player repertoire and real-world experience. And these factors need to be taken into account for designing audience-appropriate aesthetic and semantic elements of the gameworld.

In the following I will account for Canossa's theory on aesthetical affordances' sustaining influence on the *intentio ludi* (game intention). I will continue with an analysis of how consistency in the gameworld and play-personas correlate with the gameworld as field of expression and Sicart's poietic player with creative stewardship. Setting off in the visual design theories of Kress & van Leeuwen, I will claim that the aesthetics and visual design of a gameworld, especially the level of modality, is of great importance to the communication, sharing and imposing of values in games, and therefore an important part of ethical game design. However, based on Cooper et al., I will begin with an examination of how we as players interpret elements of visual interface design, in order to understand how we make sense and meaning of the semantic layer of the gameworld.

Interpreting the Visual Interface

When we as users, or players, come in contact with a visual user interface for the first time, a number of factors influence our interpretation of it and condition what kind of meaning we are able

[2] The tagline for *Dungeon Keeper* (Bullfrog Productions, 1997) was *"Evil is good"*, strongly indicating the ethical values imprinted in the game.

to draw from it. Each element in the interface posses a set of properties and these properties help us decide things like the amount of importance we give to an element, and in which order we should concern ourselves with them. Hierarchical concepts like importance and order are usually found in contexts and in the relation between elements that need to be distinguished from one another. In the design of web pages, iPhone-applications and other designed interaction, it is very important that users can quickly decipher the provided information and easily obtain their goals for the interaction. Cooper et al. define a set of properties for visual interface elements as properties that work together to create meaning. As they explain: "There is rarely an inherent meaning to any one of these properties. Rather, the differences and similarities in the way these properties are applied to each element come together to allow users to make sense of an interface" (Cooper et al. 2007, 290). In games, designers can use the properties to attract attention to certain parts of an otherwise open world environment, and thereby encourage certain behaviours and interpretations. They can also be used as subtle hints to the solving of puzzles. Some of the properties have close ties to the concept of the imagining-prescribing prop, as players will often assess a prop's abilities and possible uses, based on its visual properties.

The properties are: *shape, size, value, hue, orientation, texture* and *position*. Shape is the primary property by which we recognise objects, but because it requires a higher level of attention to differentiate between shapes rather than, for example, size or colour, it is less useful for focusing attention. Size is an *ordered* and *quantitative* variable, meaning that people will automatically order and sequence a set of elements based on their size. We have a clear tendency to assign more importance to elements the bigger they are, and since size is one of the fastest distinguishable properties, it is particularly useful when communicating a hierarchical structure. Also, people tend to overlook other differences in property appliance, if the difference in size is big enough. The value property refers to an object's illumination. Contrast in value can make something 'jump out' of an interface and attract immediate attention. On top of this, we tend to associate darker colours with density, depth and weight, and it is therefore also an ordered variable. Hue refers to an object's colour. It draws fast attention and is quickly deciphered. Colours and their meaning are tied closely to our social group and the social context and society in which we live. What signals 'danger' in one part of the world can be the colour for good luck in another. Colours should therefore be applied wisely and with great concern. Orientation is somewhat tied to shape and composition. Some objects have an outline that allows for them to point in certain directions. The texture

property requires a lot of attention to distinguish, as games are a visual medium[3], but it can in certain instances be used to signal ‘drag-ability’ or ‘clickable’. Position is tied to the composition of the interface. In the Western world we read from left to right, top to bottom, and this is also the way we sequence objects with otherwise equal properties.

The human ability and tendency to categorise and impose a hierarchy of importance on visual elements can with benefit be utilised in designing games, as the player’s interpretation of the composition can be viewed as the semantic way of influencing the creation of the zero-subject. The human mind is designed to quickly categorise things like colours, shapes and sizes and simultaneously make sense of this categorisation. Designers must be aware of this in order to avoid creating confusing interfaces that will potentially frustrate the player. However, while Sicart talks about exploiting cognitive friction in ethical games, the friction should be on a higher level of abstraction and not in the basic composition of visual elements; confusion and frustration should not be mistaken for ethical tension.

Furthermore, the cultural conditioning of our ways of interpreting is a factor to be considered, and visual representations often contain culturally inherent meaning structures and symbolic content that can influence the player both cognitively and emotionally. In light of this, Cooper et al. prompt designers not to assume specific player interpretations outside of their own cultural or social context: “Make sure you understand the visual language of your user’s domains and environments before forging ahead” (Cooper et al. 2007, 302).

Understanding the compositional properties of the building blocks of a visual interface is vital. However, we need to look beyond a game’s interface in order to gain a thorough understanding of how players experience and interpret the embedded values in the gameworld. It is important to understand how designers can create compelling fields of expression and make use of the cultural embodiment of the player, when designing the aesthetic and semantic layer of the gameworld. In the following I will examine how the overall consistency in style and modality, in addition to the interface design, can be used to convey a sense of reality and truth-value within the gameworld that, in turn, can captivate and motivate the player. I will begin with a definition and analysis of modality and then turn to the concept of consistency in the gameworld design.

[3] Cooper et al. use ’texture’ here in its physical, tangible sense, and not in the sense gamers have come to know it as for example tiling bitmap wallpapers of 3D environments.

Modality and Modality Markers

Kress & van Leeuwen define modality as a set of properties describing the level of realism, or *truth-value*, in a visual representation. We have a tendency to apply a great deal of trust to our sense of sight; we must *see to believe* and a common proof of validity is that one has seen it with one's own two eyes. However, we also know that producers of visual representations can have multiple motives to try to manipulate us, and in order to be able to act within a world of visual representations, we must be able to evaluate representations based on a notion of realism. As culturally embodied beings, we belong to a number of different social groups, and within these social groups modality cues, or markers, have been developed. Social groups use modality and modality markers to create and sustain a common perception of what is true and real. When first we see a picture or representation, modality markers cue a certain evaluation of the credibility and factuality of the depicted, based on the beliefs, values and social needs of the social group to which we belong. This is what we call the group's *realism*, the definition of what counts as real. According to Kress & van Leeuwen (2006, 158), a realism is "produced by a particular group, as an effect of the complex of practices which define and constitute that group. In that sense, a particular kind of realism is itself a motivated sign, in which the values, beliefs and interests of that group find their expression." Every realism has a *naturalism*, meaning the best or most 'natural' form of representing that reality. Truth-values cannot be said to establish an absolute truth except within a particular social group, and because our society consists of many such social groups, an equal amount of realisms exist side by side in it. There is however something general to be said about how social groups predominantly evaluate the modality of representations. The dominant standard by which we judge visual realism in our Western culture is naturalism, or what we have come to call *photorealism*. It is our understanding of the 'natural' appearance of an object, and how much we can normally see of it in a specific setting that determine how we evaluate the modality of its representation (ibid., 158).

Kress & van Leeuwen (2006, 160) list eight modality markers, each represented by a scale running from a minimum to a maximum of abstraction relative to the standards of contemporary naturalistic representation. These are: *representation*, *contextualization*, *depth*, *illumination*, *colour differentiation*, *colour modulation* and *colour saturation*. In our evaluation of modality we tend to assign more truth-value to representations that have the amount of details we would normally expect to be visible to the human eye, whereas representations with a lower level of detail is

understood as an abstraction. We assign a high level of modality to a representation in full context, meaning positioned in a fully fleshed environment with a detailed background. If an object is presented to us without a coherent, surrounding environment, we regard it as something manipulated and decontextualised. If there is an unusually deep perspective or maybe a complete lack of depth in the representation, we evaluate it as less 'real'. Illumination is tied to the detail level, and an absence of light and shade is evaluated as an abstraction. The truth-value is also evaluated based on the differentiation of colour in a representation, a scale running from a maximally diversified range of colours to monochrome, and based on how many different shades each colour is divided in. Finally, we will tend to acknowledge full colour saturation as 'most real', as opposed to black and white imagery. With today's technology of digital technology, a greyscale picture will be interpreted as something that has been altered artificially.

Modality in the postmodern world

Kress & van Leeuwen (2006, 158) acknowledge that our modality evaluation is not a constant, and that it is in effect based on both our currently dominant conventions and the technology we use for visual representation. This disclaimer is of essence when we set out to analyse the semantic layer of computer games. Digital games belong to a relatively new technology of visual representation and are therefore subject to a new kind of truth-evaluation. Science has, for example, traditionally had more modality than art, as scientists are required to present transparent and objective truths, where on the other hand we have traditionally allowed artist to bend and interpret the truth. Without going into the discussion of whether or not games can be art, we can establish that games have traditionally been of a rather recreational nature, and as such they have not been demanded the level of modality, that we have come to expect from, for example, science or photo journalism. Some game genres, like the first-person shooter, do make a big deal out of realism and detailed representation, and commercial success within these genres is oftentimes conditioned by the game's ability to meet this demand, but it is also an example of a genre specific convention. One that can be broken for effect. As Sicart explains, the breaking of genre conventions suggests a "critical interpretation of the game itself" (Sicart 2010a, 1). As experienced players we know that the *cell-shaded* look of games like *XIII* (Ubisoft 2003) and *Borderlands* (Gearbox Software 2009) is not the product of a mediocre graphics engine, but instead an indication of intentionality in the design. The technical and graphical advances of modern day digital games, with their ability to create almost photo-realistic renditions of in-game events, have made the game's modality level more of a design decision rather than the result of technical limitations.

It could be argued that the dominant convention of visual representation in our present Western society is more of an anti-convention. It is a postmodernistic approach to conventions, genres and traditions, an approach that rejects absolute truths outside of time, space and social circumstances. This goes well in line with Kress & van Leeuwen's (2006, 158) claim that “reality may be in the eye of the beholder, but the eye has had cultural training, and is located in a social setting and a history.” Earlier we defined a realism as an effect of a complex of group practices. We have concluded that we as players share a common culture, that we share many ludic practices, among these the pursuit for virtuous, ludic behaviour and the successful game experience. As many of us have additionally played many of the same games, and in other aspects of life subscribe to the same social groups, it will be safe to say that we also share the same concept of realism, at least to some degree. As it is the modality markers that inform us of the level of realism, no two players should disagree on whether or not a black and white game is less real than a game of 'life-like' colouring.

With the knowledge about how to utilise suitable visual properties and modality markers in the game’s visual elements and how to culturally appropriate these to the audience, designers can assert a level of control over how the player conceives the embedded gameworld values and thus which emotions and associations are awoken in him. This can in turn influence how the player interacts with and takes action within the gameworld. This implies that game designers, also being players subscribing to the same social group as their audience, have a tool for anticipating interpretational behaviours from the players of their game. And if designers can anticipate and design for certain behaviours, then they can also manipulate and encourage certain behaviours. The choice of modality level becomes an ethical design decision, because it conditions the forming of the zero-subject in relation to the semantic layer.

Modality Markers in Practical Use

Kress & van Leeuwen (2006, 165) make the claim that “Higher education in our society is, to quite some extent, an education in detachment, abstraction and decontextualization (and against naturalism), and this results in an attitude which does not equate the appearance of things with reality, but looks for a deeper truth ‘behind appearances’.” It is not difficult to see the evidence to this claim in today’s visual design of games and other visual media. Game companies compete not only on gameplay and mechanics, but also on more aesthetical parameters such as visual genre, look and style.

In *Kane & Lynch 2: Dog Days* (IO Interactive 2010, henceforth K&L2) the look and style of the game seem to have been the designers' main concern, in an otherwise rather un-innovative attempt at a third-person shooter. The characters and environment of the game is created with an incredible level of naturalistic detail and at the very high level of modality that we have come to expect from state of the art games. But then, by manipulating multiple modality markers, the over-all look of the game is filtered down to a much lower modality level. The game camera of K&L2 is designed in an especially interesting way. It seems to be controlled by a third unknown character in the game, it is handheld and shaking, and the zoom and focus changes frantically. The picture looks grainy and its colours are desaturated and bleak. All this, along with the constant raindrops and lens-flares in the camera, are features that have been carefully designed, the modality markers have been actively altered, and all of it is paradoxically done in order to make the game look more 'real'. This is because the features and modality markers of K&L2 are properties that we normally associate with the documentary genre, where polished aesthetics give way for the real-time documentation of events. The game's imagery is not evaluated as particularly 'true' or 'real' in any traditional sense, as players will regard it as rather modulated. But we associate the documentary genre with a great deal of truth, and the modality markers remind us of the aesthetics of user-generated content in the news and on websites such as Youtube. The science fiction film *District 9* (Blomkamp, 2009) made use of many of the same techniques in order to make its CGI aliens look like documented reality, and a varity of commercials have also adopted the kind of user-generated look of Youtube, in order to artificially document features of their product and place it in the consumer's reality. It is important for companies to share values with the consumers, and they exchange and impose these values through visual marketing. But there could be other reasons for the game designers to choose the particular visual style. Perhaps the design of K&L2 is a sophisticated comment on the peculiar nature of the

***i** Screenshots from K&L2*

third-person camera. Perhaps it is a comment on the voyeuristic and exhibitionistic tendencies of the Youtube generation. Perhaps it is just a marketing stunt.

Choosing the modality level of representations is both an ethical and a political design choice, as social groups do not just communicate and affirm their own beliefs within their own social group. They also accord and communicate the values of other social groups. Modality is "'interpersonal' rather than 'ideational'" (Kress & van Leeuwen 2006, 155) and it produces relative truths among members of a social group, as it "produces shared truths aligning readers or listeners with some statements and distancing them from others" (ibid., 155). When we communicate values and share information through the aesthetics of a game's semantic layer, we are asking our players to adopt the game's truth-values, or more precisely the truth-value of the design intention. Because the semantic layer demands a reflective player model and because players are used to looking for truth behind appearance, we should expect the player to interpret the modality markers as a conscious selection of truth-values based on a design intention.

Cooper et al. claim that interaction designers face an ethical challenge, as they are designing human interaction. But where Cooper et al. more or less acquits graphical designers from ethical responsibility, as their work is simply "the persuasive communication of a policy or the marketing of a product" (Cooper et al. 2007, 158), Kress & van Leeuwen's extensive work on visual communication uncovers the ethical and political nature of all kinds of visual communication and representation. Game designers have much in common with interaction designers, as they design the exchange of information between game system and players through affordances and constraints. It seems game artists have traditionally been regarded in much the same way as Cooper et al. regard graphical designers, but it is the hope of this thesis to emphasise the importance of aesthetical consistency throughout the entire design process. Though Cooper et al. may not view graphical design as an ethical practice, they do acknowledge the practical importance of visual designers' involvement in the early stages of interaction design.

Summary

According to Sicart (2009a, 118), a zero-subject is created when a culturally embodied player interprets a set of affordances and constraints of a game as necessary boundaries that has to be accepted in order to become a player. When we adopt the concept of modality and modality markers, and the importance that they have in regards to our perception of reality and values, we

realise that the semantic layer of a game is of huge importance in the forming of the zero-subject. The modality markers of the game's semantic layer inform us of the values embedded in the gameworld, and we are forced to engage with them. A low level of modality could distance the embodied player from the player-subject and the choices offered to it, as the basis for the decisions are deemed ‘unrealistic’. But because games are understood as fiction, we are willing to allow them the same kind of relative modality as we do art. As experienced human beings in general, and players in particular, we are able to recognise modality settings that are either genre specific or invoke specific cultural meaning. As every realism has its own naturalism, so do genres have their own unique set of modality marker properties that inform the mature and experienced player of what values need to be adopted, in order to be able to interpret the design intention. This implies that a conscious and reflected choice of modality can be a powerful tool for game designers and artists. Modality markers are incredibly effective at setting games’ semantics in relation to their players’ lives, and at cueing expectations to both the semantic and the procedural layer of games, ultimately leading to players acting within the designed field of expression.

Digital games are a relatively new medium with new genre conventions. But because computers are so powerful tools for simulation, designers have an incredibly wide range of simulated realities to choose from. Combined with a pronounced willingness to be both intertextual and self-referential, digital games have become the world’s new favourite form of entertainment that has already surpassed the film industry by several lengths.

In the following I will examine the importance of consistency in the gameworld, especially in its aesthetical affordances, and link it to the concepts of infosphere and ethical gameplay. Based on Canossa’s work on modelled player behaviour, and Sicart’s notion of the exercising of creative stewardship, I will examine the poietic player’s constructivist approach to meaning in the gameworld, and the way the player attempts to close narrative gaps in the search for causal patterns.

Consistency in the gameworld

As game designers we need to design the game infosphere in such a manner that the semantic layer is consistent enough to be interpreted and expanded on in a meaningful way by the creative stewardship of the player. It should contextualise the procedural level in such a way that a compelling and believable simulation is created, and it should expect and cater to a reflective player with a practical knowledge of both games, ethics, culture and visual communication. Our practical

knowledge and interpretational skills in regards to visual communication is, like ludic phronesis, something that we practice, develop and refine as we become more experienced and mature. Because we as human beings, and players, can be part of multiple different social groups, and therefore obtain and combine different values and beliefs, we widen and train our view on modality. Because games as a relatively new medium draws on many existing genres and conventions, and because games are made for and by culturally embodied human beings players are expected to be aware of, and gain knowledge of, an increasing amount of references and modality markers, and be able to interpret representations in a wider perspective.

In *Fallout 3* (Bethesda Game Studios 2008) the player is equipped with a PDA-like, wrist-mounted portable computer named *PIP-Boy 3000*. The PIP-Boy works as the player's digital notebook, inventory and status indicator throughout the game. Though the events of the game take place in the year 2277, the rather anachronistic design of the PIP-Boy, with its monochrome and simplistic interface and operating system, informs the player that the fictional gameworld suffers from the kind of technology loss we have come to expect from post-apocalyptic worlds portrayed in modern fiction. The PIP-Boy character is portrayed in the simple, cartoonish style typical of the fifties' comic books and the *'Duck and Cover'* government informational films and posters of the Cold War era. Along with the fifties-inspired music and the desaturated and bleak gameworld environment, the design of the game successfully establishes a gameworld with a high level of visual and fictional consistency, and with clear references to other depictions of post-apocalyptic nightmares in our culture[4].

ii Screenshot from Fallout 3

Based on the work of Wolpert, Canossa explains that the player's obedience to the game's cognitive and evolutionary imperative is mainly due to his "innate need to have the world organized cognitively" (Canossa 2009, 44). Humans and players alike need to create causal patterns between events. In fact, the entire attempt at modelling human or player behaviour is based on the

[4] Like the film *The Postman* (Costner, 1998) and the book *The Road* (McCarthy, 2006)

assumption that we don't act in disconnected and fragmented ways. Though we as players can cross the borders between play-personas, it is unlikely that we will change our player behaviour radically in an otherwise consistent gameworld. The search for causal patterns is tied to the ludic hermeneutic circle and therefore to ethical gameplay. The player-subject interacts with the gameworld, the interaction is evaluated by the system and answered with feedback, the player-subject receives the feedback, tries to insert it in a causal pattern, and attempts to create meaning from it. The embodied player interprets the interaction and ludic phronesis is developed and refined. If the reactive player witnesses a consistent link between cause and effect in the gameworld, he will adapt to this causal pattern and attempt to exploit it. Causal patterns seem to be vital for the forming of our ludic phronesis, as we expect causality to stay in a certain pattern if the gameworld appears consistent. On top of this, certain behaviours will be more likely to appear in the players, based on inscribed affordances made by the designers. Game designers can inscribe certain interpretations in the game environment, based on the player's search for causality and consistency. Canossa uses the example of the basketball, which in the right environment will inevitably be assessed by its throwability and bounciness, not for its colour or sound. The basketball itself can be the facilitator of a certain interpretation and imagining, as inscribed affordances can also be a prop, prescribing a certain imagining in the player.

The theory of the imagining prescribing prop in a game of make-believe that Chris Bateman (2010a, 2) uses in his work as a game consultant, is "a game design philosophy rooted in how a game affects the player's imagining." The prop with which we interact with the gameworld seems of especially great importance to the way we "make believe". As creative the player may be, he will need a meaningful prop in order to have a meaningful interaction with the gameworld. If the prop is designed in coherence with the rest of the semantic layer of the infosphere, players will attempt to use it in much the same way as they would use it in the real world. That is because, in the mind of the player there is a connection between the simulation and the real world. The semantic layer of a game changes the formal rule system into a simulation. The rule system is therefore not only the specific game rules, mechanics and winning conditions, but also the simulation rules, like time, gravity and limitations in the gameworld. Assuming that the game is a simulation, the player immediately draws on his knowledge of the real world, and places the game experience in the context of his ethical and cultural baggage. As Sicart explains, players have a tendency to intuitively project real-world laws of physics and kinetics to a simulation, as it can simply ease the

learning process. As players, we tend to believe that falling from great heights or crashing cars will potentially kill us, as it would in the real world. This is a perfect example that players always experience a gameworld based on their prior knowledge and ethical and cultural background.

If designers acknowledge that all interpretations and experiences cannot possibly be predicted, and that the player will subjectively interpret the aesthetical affordances given and try to find causal connections between gameplay events, parts of the narrative space can with advantage be left for the player to fill out. As Canossa (2009, 31) explains; "Due to the intrinsic nature of interactive entertainment, designers deliberately leave room for textual openness." This sort of internal self-narration coincides neatly with Sicart's (2009a, 134) claim that a "healthy game infosphere is one in which the player can actually create and enforce her values within the game system, and in which the implementation of those values does not alter the informational structure of the game." Clever game design can stimulate and encourage the virtuous, constructivist player, ultimately resulting in much of the game experience being created by the player, within the player.

This means that the gameworld is radically expanded without further designer-generated assets and affordances. But there are other advantages of textual openness in the consistent gameworld. If games are done consistently, with matching ludic and aesthetical affordances, chances are that players will reward the consistency by acting in coherence with the game. It is, in other words, not necessary for the designer to try and anticipate an unlimited amount of possible player-game interaction patterns. If the gameworld, the 'illusion', is done with a high level of consistency, most players will act in accordance with the inscribed design intention, and the field of interpretations will be voluntarily limited. This is because the virtuous player's ludic phronesis will help guide him towards the sustaining of his virtues. The virtuous player will actively try to sustain and expand on the game experience, and he is therefore willing to let himself guide towards the successful experience. Players can be expected to stand by and experience scripted game events like *HalfLife 2* (Valve Corporation 2004), as long as the event is in coherence with the game system and its semantic context and is emotionally appealing to the player. In games like K&L2 and *Red Dead Redemption* (RockStar San Diego 2010, henceforth RDR), players are often willing to walk along slowly with other non-player characters, in order to play the part needed to sustain the fiction of the semantic layer. Ludic phronesis will probably make the player want to skip the same event the next time it is being played, as the importance of witnessing the event diminishes in regards to the

player's virtues. It is no longer necessary in order for the experience to be successful, and the practical wisdom has made it obsolete. But before that happens, the virtuous, constructivist player will try and avoid breaking the semantic consistency in the game, and he will oftentimes go to rather great lengths in this attempt.

Designers should be aware of this when designing the narrative and semantic structure of games. If the player feels compelled to break out of the semantic layer, he will have to go against his own virtues and thereby act unethically, ultimately making his ludic phronesis dismiss the player-subject. In RDR designers have created an incredibly versatile gameworld within an exceptionally consistent aesthetical frame, with a rather strict storyline and multiple mini games and instances of emergent gameplay scattered all over the gameworld. Unfortunately in RDR, the player will be detached from the game by feeling forced to participate in tediously long horseback rides and seemingly endless and overly detailed cut-scenes between missions. It seems the designers have had either too little confidence in the constructivist capabilities of their audience, or in their gameworld's semantic consistency. In other words, the gameworld in RDR is so semantically consistent that bigger gaps could have easily been left for the constructivist player to fill. The result is a somewhat closed narrative within an adventurous and amazingly layered open world game environment, where players will play much more ethical and emotionally compelling games by themselves, outside the game's storyline.

Game designers and artists should pursue maximum consistency in the semantic layer of their game's infosphere, as it makes the behaviour of players more predictable and thereby easier to cater for. It will make the gameworld a field of expression that does not break when players exert their own values, as it does not encourage any behaviour it has not been carefully prepared for.

Inconsistency in the semantic layer will create cognitive difficulties for the player, and interrupt the interpretational process of the ludic hermeneutic circle. Inconsistency in the aesthetics can of course be part of the game narrative, as in for example the dream sequences of *Max Payne* (Remedy Entertainment 2001) or the shift in graphical style in *Spiderman: Shattered Dimensions* (Beenox 2010), and in both cases the semantic layer of the game stays unbroken and consistent. Players will feel detached from a game if they experience the gameworld as inconsistent or flawed. In an inconsistent gameworld, the player will feel deprived of the ability to be virtuous as there is no

longer an unbroken game experience to sustain and expand on. If players feel they have to fill a semantic gap that is too big, phronesis will eventually dismiss the player-subject and detach the player from the game. The cognitive friction Sicart encourages should not be the result of sloppy gameworld design, but rather a carefully designed blurring of the game's causality and the interplay between the procedural and semantic layer.

Summary

Computer games are designed experiences. Experiences that can be both incredibly emotional and ethically challenging. But they are also designed objects and products that are packed, marketed and sold in an exceedingly competing market. This makes it difficult to determine if the aesthetical affordances in a game is linked to a conscious design intention of invoking emotional and ethical reflections in the player, or if they're simply designed to compete with other games of the genre. But the fact that the aesthetics *have* an emotional and ethical impact on the players makes their design all the more important for designers to consider. Theories of visual design provide valuable tools for game designers and artists, tools that can be used to design consistent and compelling gameworlds that still leave plenty of room for expression and insertion of values.

Case studies

In the following I will utilise the ethical theoretical framework of Sicart in combination with the visual theories of Kress & van Leeuwen, when I examine my three case studies. The first case, *Heavy Rain: The Origami Killer* (Quantic Dream 2010) delivers an infosphere with an overall impressive semantic layer, but as I will show, the very little dependency on player participation in meaning-creation makes *Heavy Rain* a dissatisfying experience in regards to ethics. The second, *Call of Duty: Modern Warfare 2* (Infinity Ward 2009), is a first-person shooter with a storyline containing a very controversial level, but as I will argue, this particular level is exactly what makes the game an original attempt at using ethics in the genre. Finally I will describe and reflect on the design and development process of a resource management game entitled Banality, originally intended to model the *banality of evil* as described German political theorist Hannah Arendt.

Case Study I: Heavy Rain – The Origami Killer

In "*Heavy Rain: The Origami Killer"* (Quantic Dream 2010, henceforth Heavy Rain), Ethan Mars must overcome horrendous challenges and bring horrifying sacrifice, in order to save his son Sean from The Origami Killer. Though Heavy Rain's website declares the game "*an evolving psychological thriller filled with innumerable twists and turns, where choices and actions can result in dramatic consequences on the story*"[5], I will still treat it as a video game, as it is my opinion that digital games have for too long, somewhat wrongfully, been subjected to theories derived from other media. Heavy Rain may look and sound like a film or a play, but the fact that a player-subject acts within a game infosphere makes a simple sender-receiver analysis inadequate at best. However, as I will argue later in this analysis, the intense focus on cinematic narrative has made Heavy Rain a less fulfilling gaming experience. Because Heavy Rain, like other digital games, is an object which "create[s] experiences by limiting the agency of an ethical being" (Sicart 2010b, 6) it reaches into the life of its player and shapes the way he experiences the world. And therefore it should be subjected to ethical analysis. In the following I will analyse the gameworld as an infosphere with both a procedural and a semantic layer, and analyse how the game limits the agency of the ethical agents that is its player. By comparing the design intention realised through modelling, the implied player behaviour, to a hermeneutic analysis of the actual player experience, I will evaluate the game's success as an ethical experience. As I will explain, especially the mechanic embodiment of the player through so-called *quicktime-events* and the game's unusual lack of a user interface and its

[5] http://www.quanticdream.com/en/game/heavy-rain, recorded Jul 3rd, 2010

dependence on cinematics, seem to pose severe problems in regards to Heavy Rain being an experience of ethical gameplay.

As explained in earlier chapters, the implied model player is an ethically and culturally embodied being that understands games as more than mere pastime entertainment. Games are also an expressive medium. They are ethically charged infospheres, created from a design intention with moral implications. When the moral agent interacts with the designed game object, he "engages in the ludic experience with the intention of exploring the game system, but also [his] own values" (Sicart 2010b, 5). The ethical game should be designed in such a way that the game system itself facilitates the self-exploration of values in the player. It should explore its player's ethical subjectivity, so to speak. Heavy Rain addresses its ethically exploratory properties directly in its tagline by asking: *"How Far Will You Go To Save Someone You Love?"* and as a part of a "Key Features" list, "Mature content, reflecting a realistic world setting that explores powerful themes"[6] is listed as a clear sales argument. Heavy Rain is a dark and serious game about the ethical implications of sacrifice and self-sacrifice.

The Game

There are four playable characters in Heavy Rain; Ethan Mars, Scott Shelby, Madison Paige and Norman Jayden. The narrative of the game is made up from different scenes surrounding the characters, whose individual storylines intertwine and connect with each other. In this analysis I will use gameplay instances from the storylines of Ethan Mars and Scott Shelby, as both Jayden and Madison seem to be tied more to the dramatic and criminal aspects of the game and less to the ethical aspects of gameplay.

Our protagonist Ethan Mars lives a happy life with his wife and two sons Jason and Shaun. One day, when the family goes to the mall, Ethan loses sight of Jason. After moments of panic, Ethan finds Jason in the street and jumps to try and save him from an oncoming car. Jason is killed and Ethan is put in a coma for six months. Two years later Ethan is divorced from his wife, he lives a life with depression and fear of crowds and he suffers from blackouts that last hours at a time. During a blackout, Ethan loses his second son Shaun and soon discovers that Shaun's been abducted by The Origami Killer, a serial killer with a signature way of killing his victims. He abducts a young boy during the rainy fall season, after which the body is found in a remote location,

[6] http://www.quanticdream.com/en/game/heavy-rain, recorded Sept 3rd, 2010

drowned in rainwater. Ethan and the FBI agent Norman Jayden now has to find Shaun before the city has received six inches of rain, the amount of rain that will drown Shaun in his prison. Ethan receives a letter that directs him to a locker, where he finds a shoebox containing a handgun, a mobile phone and five origami figures with instructions written on them. Ethan now has to complete five quests in order to get five clues as to where Shaun is held captive. The quests present increasing risk and involve physical pain from electrocution, racing through oncoming traffic, self-mutilation by amputation, killing a man and drinking poison. Alongside Ethan and Jayden's tribulations, a private investigator and retired cop named Scott Shelby visits the parents of the lost children, making an especially close connection with a young mother named Lauren, whose son Johnny was a victim of the Origami Killer. Just like Ethan, Johnny's father received a letter after Johnny's disappearance and he has never been seen again. Much to our surprise, we late in the game discover that Shelby is in fact The Origami Killer, his sadistic game devised to find a father that will do anything to save his son. When he saw Ethan risk his own life for Jason, he made Ethan the next player in the game. Shelby lost his twin brother John, partly because his alcoholic father did not care enough to save him from drowning.

Interpreting the Gameworld

As most other games the initial part of the game is designed to make us familiar with the procedural level of things, namely the gameworld, controls and mechanics, and the semantic level of things, namely the plot, gameworld[7] and characters. We first meet Ethan lying on a bed in a sunlit room. Through a quick tutorial we are introduced to the game's controls, as we push designated buttons to get Ethan to stand up, take a shower and put on some clothes. We are told what buttons to push by a very minimalistic user interface of simple, white representations of the buttons and the way we should interact with those buttons. Through a small juggling game, we are taught that the way and the speed in which we push and hold the buttons, are crucial to the way we interact with the game. We are also taught that we should get dressed before we go downstairs, and that the game simply denies us to ignore this. At first the amount of actions required to do even simple tasks leads us to believe that the gameplay offers an incredible amount of possible courses of action. If we push a specific button, we are told what our character thinks, thereby getting a hint of our gameplay possibilities, a seemingly very helpful feature, as we would otherwise be overwhelmed by the wide range of interactions available. There is something very filmic and cinematic to the visual style of

[7] As explained earlier, the gameworld belongs to both LoAs, as the semantic layer makes the procedural gameworld a simulation.

Heavy Rain, as the sleeping Ethan is portrayed through a multi-camera opening shot, rather unusual in video games. Through the next couple of 'scenes', we are introduced to the idyllic everyday life of a typical suburban family. We are asked to perform a wide set of extremely mundane and everyday tasks, like make coffee, set the table and drive an electrical toy car.

This is where we first realise that even though the amount of interactions is seemingly limitless, all we are really asked to do is move the story along by continuously activating another scripted cut-scene. We do not actually drive the electrical toy car. We simply activate the scene in which Ethan drives the car. On the procedural level, Heavy Rain subscribes to the sort of branching narrative that Sicart deems primitive and perhaps a bit old-fashioned (Sicart 2010a). It is the kind of decision-making nodes evaluated by the game rules that we see in games like *Knights of the Old Republic* (BioWare 2003) and *Fable* (Lionhead Studios 2004), but unlike these games, Heavy Rain does not have a transparent morality system or even clear, positivistic winning conditions. If we provide the wrong input, the representation of the prompted action simply turns red and our interaction with the system changes. We are informed by the interface that we have been unsuccessful in complying with the demands of the system, and because the state of the narrative changes, we understand that this failed interaction just brings the game towards a different narrative branch than the strictly successful interaction would have. We are allowed to be virtuous without necessarily being absolute victorious. In other words, the reflective agent is allowed to overrule the reactive agent. Especially one of the chapters of the game presents us with a dilemma, which could have been completely computable in the procedural level, but which is instead placed somewhere between game system and simulation, making it a designed ethical experience.

To Kill or Not to Kill – That is the Dilemma

After having electrocuted himself, mutilated himself and driven a car against the traffic on the interstate, Ethan is asked to take the gun and go and kill a stranger, photograph the body and send the picture to the killer. Before entering the apartment, if we choose to listen to Ethan's thoughts, frantically illustrated by multiple flashing words in the interface, he will flesh out the dilemma for us, should we not have noticed the extreme ethical questionability of the task at hand; *"Kill a man. I'm going to kill a man to save my son. What kind of a choice is that?"* Well, it is an ethical choice. In fact it is almost the definition of an ethically charged decision (Law et al. 2009). It all comes down to whether or not to kill a man. If we decide to kill him, we get a clue. If we do not, we will probably be able to guess the clue later on, but we cannot really be sure. We have discovered that

the clues obtained are used in games not unlike “hangman,” where we have to fill in the blanks in a word puzzle. If Ethan fails a quest, we should still be able to guess the answer if we are experienced in word puzzles, but as players of video games we have been taught that quests must be completed successfully in order to win the game. Our practical wisdom as experienced players however also tells us, that a successful gaming experience does seldom include playing for hours, just to find out the game cannot be completed due to a wrong choice made much earlier in the game. We expect linear games to let us be both virtuous and victorious, to at least some extend, if we make it to the end of the game’s narrative. We expect them to immediately tell us if we have made a fundamental mistake that has rendered the game un-winnable. This prior knowledge and expectation is challenged in Heavy Rain, as we discover that the game will continue to unfold, even when we provide the game with inadequate or even wrong inputs. If the police catch Ethan because we fail to press the correct order of prompted escape-actions, we simply have to finish the game with the other playable characters of the game. So when we have to decide whether or not to kill the father of Sarah and Cindy, the decision is not left entirely up to the reactive player.
When Ethan stands in front of his victim’s door, he goes through the events in his head. His plan is to open the door, shoot and kill instantly, take the photo and get out of there. We will soon realise that this option is not available to us, as the game is designed in such a way that we cannot act completely cynical and calculated. We are supposed to end up in an even more ethically charged situation before we can decide to kill Brad Silver, the resident of the apartment. When Brad opens the door we are confronted with the fact that Brad is a drug dealer, and apparently a pretty unsympathetic one. Ethan hesitates, even when we follow the prompted requests blindly, eventually ending up with Ethan running in panic through the apartment, chased by Brad with a shotgun. When Brad finally gets Ethan cornered in the back of the apartment and it turns out his shotgun is out of ammunition, the choice to kill him seems all the more simple. But it is not.

There has been a sudden change in gameworld coherence, as we suddenly find ourselves standing in a children’s room with bunk beds and drawings pinned to the wall. The drug dealer falls to his knees and pleads for his life, stating that he is a father, showing us a picture of two little girls named Sarah and Cindy. The game’s designers have gone to some length to inform the reflective player, and contrary to the game of Banality, which I will describe and analyse later, everything has been done to eliminate the chance of banality of evil in the scene with the drug dealer. It is still the choice between killing or not, but the ethical tension has been tuned up a notch. We have

discovered that the presumably innocent stranger is a murderous drug dealer, but we have also discovered that he is the father of two little girls. The game designers expect us to be involved with Ethan's character at this point, to have established a unique player-subject, and they expect us to be able to reflect on our affordances and constraints and how our player-subject relates to them (Sicart 2009a). We need to decide if we are a reactive player or a reflective player, a process that will ultimately make us the latter.

Screenshots from Heavy Rain

It is not without consequences to kill the drug dealer. If Ethan decides to pull the trigger, he looks away and says: *"I'm a father too. But I have no choice"*. Then he drops to his knees and vomits. If we, for a moment, disregard Sicart's notion of the player as a being of moral reasoning, the game explicitly tells us that Ethan is no such immoral character, even though the player's motive to kill the drug dealer could be a simple, cynical calculation of meeting the game's winning conditions. Even if the reactive agent decides to comply with the demands posed by the game system, the semantic layer will inform the reflective agent that the action has ethical consequences. Ethan's reaction to his deed tells us that more is at stake here than meeting the winning conditions, but aside from the vomiting, we are also awarded a trophy entitled "I'm a Killer", directly addressing the fundamental change in the self-image of Ethan and of our player-subject. We are no longer just a virtuous player-subject, we are a cold-blooded killer within the gameworld *and* within the game community. Should we choose not to kill the drug dealer, we instead earn the trophy "I'm not a killer", a trophy that sustains the virtues of the embodied moral player. These trophies surprisingly break with the game's otherwise rather consistent lack of value-based feedback messages.

Use of Imagining-Prescribing Props

The photo of the two girls works as an imagining-prescribing prop in the scene with the drug dealer. Regardless of what we decide to do in the situation, the photograph is used as an aesthetic reminder

of the consequences of our actions. If we decide *not* to kill the drug dealer, Ethan strikes him unconscious with the gun and sighs: “I’m a father too. But I’m no killer.” The camera tracks across the wall with children’s drawings and ends up in a close-up of the photo of the two girls. The music is loud and celebratory. A good deed has been done. Conversely, if we decide to kill Sarah and Cindy’s father, the camera tracks across the dead body and ends up on the photo. This time accompanied by bombastic music of a more mellow nature. Either way the photo works as a prop, both during the decision-making and here during the narrative evaluation of the choice made. On his blog at ihobo.com, Chris Bateman builds on Walton’s theories of representation, and describes game assets as imagining-prescribing props: “Any representation […] can be understood as a prop, and people participating with such props are considered […] to play a game of make-believe with it, such that it prescribes certain imaginings” (Bateman 2010a, 2). Some props prescribe more abstract imaginings than others, but if we consider Canossa’s theory of coherence in the gameworld and Sicart’s description of the ludic hermeneutic circle, we should be able to make an interpretation (or imagining) more qualified than a simple guess. We must expect the gameworld to be somewhat coherent. The designers of a game like Heavy Rain are expected to have put an impressive amount of time into building a gameworld and a narrative with a very coherent semantic layer. In fact, as I will argue later, the designers’ strict control of the narrative is in fact what makes Heavy Rain an ultimately dissatisfying gaming experience. As we play the game, we revise and build upon our ludic phronesis, making it a refined tool for interpretation. When we are presented with a game prop, our interpretation of that prop is subjective but our imagining is prescribed and limited by the practical wisdom we have built up through the game and throughout our previous gaming experience and life in general.

Heavy Rain seems to have a pronounced lopsidedness to its network of distributed responsibility throughout the game. Though Heavy Rain relies on the player’s imagination and emotional repertoire to interpret the dilemmas in the game, it seems the designers have had too little confidence in the poietic player’s sense of responsibility for the well-being of the infosphere. Instead of affording interesting and meaningful mechanics for the player to express himself through, the game simply prompts the player for action through a rather inconsistent use of controller specific directions in the interface. The game’s reliance on cinematics in most cases forces the player to become the instrument of the designer’s creation of meaning, and the bigger part of the game’s progression happen through *quicktime-events*. In the following I will criticise this design

approach and explain why the instrumental gameplay of Heavy Rain makes it ultimately a failed ethical experience.

Cinematics and Quicktime-Events

When playing *Fahrenheit* (Quantic Dream 2005), the predecessor of Heavy Rain, Sicart (2009a, 79) noted that the game's use of the so-called *quicktime-events*, cinematic cut-scenes made somewhat interactive by a sort of press-when-prompted mechanic, was a rather polemic design decision. He interpreted the decision as an attempt to strengthen the physical relation with the player, "trying to embody the act of playing by means of interface design" (ibid., 80). When we regard the player-subject as skin, a sensitive organ that both affects the game experience and is affected by the game experience at the same time, the choice to use quick-time events seems compelling. If the actions performed on screen is somewhat related to the physical actions performed to manipulate the game controller, the modality of the game-player relationship seems to increase. The distance between the in-game action and the physical act carried out decreases. This is however not always the case with quicktime-events. Heavy Rain has adopted Fahrenheit's way of using the console controller. As the events of the game unfold before us, we are prompted to perform very specific tasks at a very specific pace in order to be successful. It is beyond the scope of this thesis to go into a discussion about physical player embodiment through the use of motion detecting controller devices like the *Wiimote* or the *Playstation Move*, and Heavy Rain's controls are too abstract to justify a thorough analysis of the relationship between gameplay and controls. Heavy Rain's use of the *Playstation 3*'s *Sixaxis* motion-detection capabilities seems more tied up to the need for a touch of "game feel" in an otherwise quite limited interactive, cinematic narrative. It seems that the need for interaction, both in regards to controls but also when it comes to user interface design, has been of almost a nuisance to the game designers.

In an online discussion between Sicart and Bateman (Bateman 2010b, 3), Sicart expresses his concern about game designers as game authors, and the claim of authorship, as it implies great authority in the designer, and limits the ethical agency in the player. Proceduralists have traditionally had a tendency to leave the player out of the process of creating meaning in games, and the developers of Heavy Rain seem to be of much the same conviction. Instead of letting their players play around in the game, express themselves and construct their own meaning they simply provide the meaning through the game rules, and leave it up to the player to play out the game rules and discover the embedded meaning.

This is ultimately the downfall of Heavy Rain as a truly ethical experience. Because the limited affordances of the game's interface make the cause-and-effect relation of the game mechanics so opaque, and due to the extreme lack of consistency in the embodying actions, the player is oftentimes left clueless as to what will happen when a certain action is performed. When I first played the game, I accidentally performed several tasks that went against my player virtues, simply because I had little or no idea of what action I was performing when I followed the guides on the screen. The highpoint of this agonising experience came, when I accidentally left Lauren to drown in the sinking car, as the user interface during the underwater escape left no clues as to whether the actions performed would safe her or simply make Shelby flee the scene. When we later discover that Shelby is the Origami Killer, we realise that whether to save Lauren or not was the only real choice in the car, as Shelby will eventually escape without our help, simply so that the narrative of the game can continue as intended.

When Sicart argues for an increase of cognitive friction in game design, this is hardly what he means. Ethical gameplay is found in the values between systems, in the dissonant dialogue between, on the one hand the reactive agent and his need to interact with the procedural level of the game, and on the other the reflective agent and his need to interpret the semantic level of the game. But in Heavy Rain the player is not deprived of an informed choice in an ethically relevant way, where he is uninformed as to how his actions are being received and interpreted by the game. He is instead deprived of the valuable knowledge of how a specific action will be interpreted into a mechanic by the game. The failure of Heavy Rain's use of cognitive dissonance is even more pronounced when we discover that one of the game's playable characters, Scott Shelby, is really the Origami Killer. In the game *Braid* (Blow 2008) ethical cognitive dissonance is cleverly used to create tension in the player, as the player discovers that the princess is in fact running away from him, and not the monster. The player is forced to reflect on every decision made throughout the game, as it is suddenly painfully obvious that he is in fact not the protagonist, and that every action has been made on a false pretence. In Heavy Rain the player just ends up feeling a bit betrayed as he has been able to read Scott Shelby's mind all along, and not a single clue to his homicidal tendencies has been revealed. This sort of twist can work fine in films, but not in the case of Heavy Rain. It simply sustains the notion that we have had absolutely no clue of what we have been doing throughout the game.

Summary

Heavy Rain is a beautiful game with an interesting and thrilling storyline. But because the plot of the game is so elaborated and artful, the designers have been too hesitant to allow for their players to express themselves within the game. It is allowed for the player to play inefficiently and unsuccessfully, but the semantic layer of the game is so fragile, that the player's interaction is so extremely narrowed that most of the game experience resembles skipping through the chapters of a DVD. The only real choice presented to the player is whether or not to interact.

The game does contain interesting gameplay instances, but a heavy reliance on cinematic quick-time events is a very problematic design decision and should at the very least be combined with mechanics that allow for player expression and construction of meaning.

Case Study II: Call of Duty: Modern Warfare 2

For my second case study I have chosen Call of Duty: Modern Warfare 2 (Infinity Ward 2009, henceforth CoD:MW2) as it is an example of how a player's ludic phronesis and cultural embodiment can be used to create ethical tension and interesting gameplay. CoD:MW2 belongs to a genre called the *first-person shooter*. The name itself refers to the genre's main mechanic, namely the use of a weapon prop to interact with a predominantly hostile environment. The genre has traditionally been surrounded by a lot of controversy, as it has been the focus of effect studies in psychology, and a favourite whipping boy of well-meaning parent organisations and censorship advisory boards. As I stated in the introduction to this thesis, I do not wish to go into a discussion about the possible consequences of violent video games in our society, as I want to focus solely on the development of meaningful and interesting games. Though first-person shooters have been critised for everything from highschool shootings to the military's drafting of willing soldiers (Höglund 2008), I wish to focus on a particular event in CoD:MW2 that makes the game stand out of its genre and make a strong comment on both the military shooter as genre and modern warfare, as it creates a strong ethical experience for the player.

But in order to fully understand the meaning of the event and why it has a deep impact on both the player and the way in which he interprets the rest of the game, it is important to take a short look at the preceding three chapters, as they play a vital part in the creation of the player-subject that encounters the fourth and seminal chapter.

Before the Massacre

The game starts with a tutorial level set in a military training course, with cardboard enemies and physical obstacles to teach the player the basic controls and mechanics of the game and introduce the physical possibilities in the gameworld. The ability to jump, crouch, run, aim, and reload the weapon will be useful later and by performing the prompted tasks, the player-subject's repertoire is refined and some "best practices" like the correct handling of grenades are trained. The player is also instructed to follow the white marker in the interface, as it will be the guide towards mission objectives throughout the game. There are no live targets in the course, but some of the cardboards do resemble civilian subjects, though only points are deducted if they are hit.

Things quickly heat up, as the second chapter is the game's first real mission. After the load screen, the player finds himself lying on the back, getting picked up by a commanding officer and pushed forward into battle. The camera is shaking, and bullets are flying everywhere. A group of American soldiers are held up below a destroyed bridge and are under heavy fire from the opposite side of the river. The player is thrown into the fire immediately and is ordered to seek cover on a riverbank. The game's modality is very high with incredibly detailed graphics and lighting effects, and with overwhelming and devastating aural depiction of battle. Everywhere explosions are going off and dust, water, and debris are thrown in the air. Multiple scripted scenes are being played around the player, as soldiers run for cover, fire at the enemy, try to save their wounded friends, and give suppressing fire. It is clear that CoD:MW2 is trying to portray warfare in all its horror and adrenaline-pumped confusion. This is the first time the player is being shot at, and though it breaks with reality that the player's entire view is desaturated into red, and even more so that blood stains appear on an otherwise invisible screen in front of him, it has a clear effect on the emotional tension in the game. The blood spatter could seem like a detaching visual effect like in K&L2, but this kind of interface indication is becoming a convention of the genre, as both blood and the colour red are clear and urgent signals of danger, and has a limiting effect on the player's field of vision. The last part is especially relevant, as the player is incredibly dependent on being able to interpret the gameworld environment in much detail, as he should be able to realise where the enemy fire is coming from, and either run for cover or be able to aim and fire back. The drops of blood inform the player's practical wisdom that while being hit does not mean certain death, it diminishes his ability to navigate in the environment. In the beginning of the chapter the enemy is hidden away on the opposite riverbank, and the zoom-level of the available weapon is too limited for the player to make

out any clear impression of the enemy. Instead he is shooting in the blind. As soon as the bridge is rebuilt, the player is asked to enter a military humvee and man its roof-mounted minigun to protect the convoy. The firepower of the minigun is so overwhelming, and enemy occupation so massive, that very little distinguishing between targets is possible. The player is instead shooting at everything that moves.

Then suddenly everything calms down, and the convoy continues through the streets unchallenged. The composition of events in this chapter is planting an unsettling feeling in the player, and the aesthetics is doing everything in its power to enhance that feeling. When first the shooting stops, the convoy drives through a huge cloud of dust, making it literally impossible to make out anything other than a vague contour of the car in front. Soon after the cloud disappears, the shooting starts again. The events of the chapter are a visual tale of a frantic fight against an enemy that has no face, and where sudden death is lurking around every corner. The paranoid tension instructs the player's phronesis that he should stay on his toes, and that there is often too little time to separate hostiles from civilians.

In the third chapter, the game radically changes pace, as the player is sent on a stealth mission in a snowy and windy landscape, with very little visibility. After having climbed a mountainside and jumped over a ravine, the player is instructed to sneak inside a camp and take out any enemies without being detected.

The first chapters of CoD:MW2 present very different playing styles, and the levels are almost designed for entirely different play-personas. However, experienced gamers expect modern shooters to facilitate different play styles than just walking around corridors and opening doors. The over-arching storyline of the game is fragmented and the player is required to take on the roles of several different characters along the way, all pointing to an interpretation of the game as a simulator of modern warfare as phenomenon, more than a story of any one soldier's personal experiences. Common to all the chapters of CoD:MW2 is that they start *in medias res* and then expect the player to quickly be able to interpret the surroundings and understand the mission at hand. One thing is certain: There is really only one way for the player to interact with the environment. All communication goes through the prop that is a gun. In this respect CoD:MW2 does not differ from

other games of the genre. But what happens in the next chapter has never been seen before in a warfare simulation.

The Massacre

Before the fourth chapter begins, an unsettling voice-over in the load sequence informs the player that war is fought on all fronts in modern warfare, and that "you will loose a part of yourself in the process". And something *does* fundamentally change in the fourth chapter of CoD:MW2.

Screenshots from CoD:MW2

The mission starts with a black screen and the sound of several guns being loaded. Based on prior experience with the game, the sound of reloading should trigger the player's expectations for action. A text says "Zakhaev International Airport, Moscow, Russia" and there is a sound of an elevator reaching its destination floor. The elevator doors open as the game fades from black, and the player finds himself standing in an elevator surrounded by heavily armed men with Kevlar vests.

This is about the time when the player discovers the horrible truth of the events that are about to unfold. The men walk out of the elevator and open fire on a huge crowd of unarmed civilians that scream in panic and try to escape. The virtuous player will most likely attempt to kill the terrorists at first, acting in accordance to his ethics. But as soon as he does so, the other terrorists will either kill him or the game's evaluation of the action will simply cause him to fail the level. The procedural layer of the game is the same: the player is still supposed to shoot at everything that moves, and the reactive part of the player's repertoire should therefore still be useful. The reflective part is however not, as in most parts of the airport chapter, the things that move are unarmed civilians that are screaming and fleeing in panic. There is one morbidly effective change to the mechanics in the airport chapter. In the first part of the level where most of the massacre happens, the player is only

able to walk at a slow pace. Player agency is limited and it is the clear intention of the game that the player is forced to witness every part of the slaughter. The terrorists also seem surprisingly careless, as many of the victims do not die immediately, but instead crawl and twitch on the floor to make the scenario even more horrifying.

The player's ludic phronesis should instantly dismiss the player-subject and the player should feel an ethical tension strong enough to break the game experience. But the game quickly tries to drag the player back in, by putting the player character under fire again. The procedural level still does not accept 'friendly fire', yet the semantic layer now informs the player that the tables are momentarily turned in regards to friend and foe. The player is a part of a terrorist attack and anybody who is trying to stop it should be killed, so when the Russian counter terrorist unit arrives at the scene, the game returns to the kind of "kill or be killed" rhetoric that dominated the foregoing chapters. Even if the player has refrained from killing civilians, the level cannot be completed with killing at least a couple of police men, and the game's procedural rhetoric insists that the player should commit acts that go against his virtues. This extreme way of challenging the player's phronesis is a potentially dangerous practice, as it could be expected that some players would find the level simply too overwhelming and repulsive to play through to the end. The fact that it is still attempted is probably because the poietic player will most likely feel enough for the act of play to sustain it, and because the player's prior game experience acknowledges that levels must be completed in order for games to be completed, and expects that the game will soon return to normal.

The tragedy of the chapter is complete, when the player has finally helped the terrorist leader Makarov to safety, and is then shot and left to die because his undercover operation has been known all along. It is a clear message that modern warfare is a dirty game of terrorism and politics, and where every man has his own agenda.

After the Massacre

When chapter four ends, everything has changed. Though things may look the same, the emotional attachment of the player is either broken completely or stronger than ever. Some players may feel an urge for revenge. Others may never want to fire their weapon again. Either way, the reflective player should be unable to return unprovoked to the game, and perhaps even the genre. By first building up the player's practical wisdom to regard himself as a patriot hero answering the call of

duty, then shattering it completely in a level of horrifying atrocities, and then putting it back together again in a series of levels with ambiguous definitions of right and wrong, the developers of CoD:MW2 have successfully created an incredibly successful and interesting gaming experience for the player.

When the game was released, a lot of controversy emerged especially surrounding the terrorist attack in the airport. As games are still often regarded as a fun, pastime activity, some critics had problems with the player taking active part in a terrorist attack. And claims made that the sequence was only put in the game to infuriate players into taking revenge, did not seem to calm the protests. Controversy eventually ended up with Infinity Ward putting a disclaimer in the beginning of the game. Players are asked if they have issues with missions containing 'disturbing content', and if the player answers yes to the question, the airport scene is simply removed from the game's storyline.

Paradoxically, this choice involuntarily implies that the rest of the game's missions will not contain disturbing content, and to skip the scene will in fact deprive the player of the painful experience and understanding that will shed a new light on all other missions in the game. One could perhaps even claim it fundamentally unethical and banal to skip disturbing content of a warfare simulation like CoD:MW2, as it dismisses some valuable reference points for the reflective player to reflect upon.

Summary

CoD:MW2 sets up new milestones for first-person combat simulation, both in regards to aesthetics but also when it comes to challenging the genre and exploiting the unique, immersive qualities of the first-person perspective. Like Steven Spielberg revolutionised the portraying of combat in *Saving Private Ryan*'s (Spielberg 1998) 30-minute long opening sequence of the attack on Omaha Beach, so does CoD:MW2 change the way we expect first-person shooters to look and behave. Most of the emotional tension of CoD:MW2 comes from the semantic layer, where scripted events unfolds everywhere around the player, and where the game environment change and reacts to the players actions. The developers have succeeded in creating gameworlds that look open and free for exploration, but which has outer barriers built carefully into the design, and a visual storyline that cleverly and almost unnoticeably guides the player in the wanted direction.

The developers use their main audience's usually extensive experience with shooters, and the cultural and social context to which they belong, to create a disturbing and unsettling ethical gaming

experience for the player. By exploiting the ludic phronesis, and by playing on the blurring of right and wrong in a war based on sinister political motives, the developers make a strong comment unusual for the genre, on both the nature of modern warfare and the emotional and ethical loss of virtue that will inevitably be experienced when one answers to the call of duty.

Case Study III: Banality

In the spring of 2010, I participated in the development of a social game work-titled *Banality* for the global social network Facebook. During development I worked as a game and graphics designer, with responsibility mainly in regards to the design of the game's information flow and the aesthetics of the user interface.

The initial idea for the game came from Sicart's work on ethics in computer games, in particular from his article "The banality of simulated evil: designing ethical gameplay" (Sicart 2009b). In the article, Sicart draws parallels between the Information Ethics concepts of Levels of Abstraction, and the *banality of evil* that German political theorist Hannah Arendt described in her report on the trial of Holocaust coordinater, Otto Adolf Eichmann in 1963. According to Sicart, the banality of evil is a consequence of systems designed to obscure the causality of decisions, and limit the ethical agency within that system (Sicart 2009a, 192). In much the same way, Banality was to be designed as a game system obscuring causality of its players' actions, in order to create a procedural understanding of the banality of evil. We wanted to develop a game that would foster instrumental play by depriving the player of ways to express himself through play.

The *procedural rhetoric* (Bogost 2007) of Banality tries to make the players understand banality of evil, as we would encourage them to either behave as an efficient bureaucrat like Eichmann, or to reflect on their actions and seek information in the system that could inform them of the consequences of their choices for other players. We therefore made use of two main player models during development, "Eichmann the reactive" and "Eichmann the reflective". As I will explain later, future iterations of the game should also include and cater for a player model named "Eichmann the playful".

The following should be regarded as design reflections of a practitioner of game design. As a participant in the development of both the initial concept, the rules system and the graphical design of the game's interface, I will provide development insights and reflections from my own work and observations during the development. The argumentation in this part of the thesis is based on no other empirical data than my own notes from the design phase, and my personal observations of player behaviour during the game's test phase.

The first of this case study is an account of the design intention and considerations, and a description of the development process. It will contain some analytical elements, as it is my goal to present a reflection of the design process from the practitioner's point of view. Later I will give my account of a playtest and suggest improvements to both the game and its design process.

Developing Banality

In the initial stages of the developing of Banality, we had a lot of discussions about what the game should be about, what its purpose should be and what it should serve to prove or disprove. With a basis in Sicart's paper on the banality of simulated evil, we wanted to see if we could develop a game with affordances and constraints that would foster a banal player behaviour, by obscuring the causality of the players' decisions, thereby proving that the banality of evil is a designed limitation of ethical agency in complex, multi-agent, hierarchical systems. In order to challenge the players ethically, we wanted to make a multiplayer game of resource management, and give players agency over each other in a strict hierarchy with an asymmetric distribution of agency. We wanted no more than three different player roles, and we wanted them each to have their own unique responsibility in the game system.

We decided we wanted to use Facebook as the framework for the game, as it would allow us to reach a wide variety of players and because most people are already used to playing Facebook games of resource management. Aside from that, we wanted to explore if Banality could persuade players to limit the game experience for, or even sacrifice, members of their own Facebook network.

It is important to note that Banality was never meant to be a successful game experience in any traditional sense of the word. It was first and foremost meant as an experimental prototype of a design method. The game changed many times during development and when the design and testing

phase were finally terminated, the game seemed to be an indication of something other than the hypothesis that we set out to examine. The game in its current state is broken as a game experience, but it is the reflective designer's virtue to try and deduce useful meaning also from his failures. As I will later argue, Banality can still be seen as a very meaningful failure, as it seems to prove the importance of semantics and an engaging simulation by a negative example.

In the following I will describe the main features of Banality and the many considerations that went into designing them. More information can be found in the design document in the appendix.

The Game

Banality is a game of resource management and mastering the game's informational system. Players are assigned to three different player roles placed in a strict hierarchy, the Bureaucrat, the Manager and the Worker. Banality's gameplay is divided into rounds, where each level of the hierarchy is in play, and at the end of each round the outcome of the interaction is calculated and evaluated by the system. A typical round of Banality starts with the System, an invisible force outside the game world, submitting an order to the Bureaucrat, consisting of a demand for a certain amount of resources paired with an amount of money offered to produce these resources. The Bureaucrat now has to pass on the order to his Managers, by deciding how many resources to ask for and how much money to offer in return. The order is distributed evenly between the Managers. When the Managers receive the order, they will have to set a wage for their Workers, a resource-to-money ratio that they think will be accepted by enough Workers to get the job done. When the Workers receive the wage offer, they will each have to decide if they want to work or not. The Managers receive a list of Workers willing to work, and they decide which of the Workers that gets to work. If a Worker is chosen for a job, he is deducted a portion of his health in return for the promised wage. The Managers have three phases of interaction with their Workers before they have to have the order completed. When the Managers receive the produced resources, they have to decide what to send back to the Bureaucrat. When the Bureaucrat receives the resources, he has to decide what to send back to the System. The game never ends, unless all Workers are dead or the System's demands have not been met for more than three turns.

As an extra feature, players can spend their money on luxury items and commodities in an Item Store. Luxury items have no influence on the gameplay, but are simply placed in the player's inventory. Workers can in addition buy food items to sustain their health.

The items are brought into the game to see if players, perhaps in a desperate attempt to express themselves in the game, would feel compelled to spend the game's most scarce resources on inefficient and banal commodities.

The procedural level of Banality affords roughly two kinds of player behaviour, namely a banal and reactive behaviour that focuses on efficiency, and a reflective player behaviour that focuses on the act of play and interprets the banality of evil. It is obvious that money and resources change hands many times along the way, and that there are multiple ways in which players on either the bureaucratic or the managerial level can filter and manipulate the game economy. A designed system of promotion and demotion based on efficiency directly encourages players to be efficient within the system. If a Bureaucrat does not meet the Systems demands in two out of five turns, he is demoted to Manager. The most efficient Manager is then promoted to Bureaucrat. If the Managers fail to meet the demands of the Bureaucrat, the game demotes the least efficient of the Managers to Worker, and promotes the most efficient Worker to Manager.

In order to determine which player decisions that can be interpreted as the banality of evil, and which that are based on a reflection on the game system, we should take a closer look at each player role and the choices made available for them.

The Bureaucrat

The Bureaucrat has the ability to save up resources but not money. This means that money that is not handed down through the system is 'burned', and therefore of no good to anyone. The Bureaucrat can decide to keep resources for himself for two reasons. One is to prepare for a situation where the Managers do not return the required resources. In that case it can be advantageous to have resources in stock to avoid demotion. Apart from that, the Bureaucrat has the option to use resources to buy different luxury items that have no influence on the gameplay. The idea is that the Bureaucrat should have different, yet very specific choices of behaviour available in the game.

If the Bureaucrat decides to pass on all the money and ask for only what the System demanded in return, then he will act in accordance to the overall well-being of the system. Money is of no use to him and by sending them along through the hierarchy, he gives the rest of the system the optimal conditions to both produce resources and stay alive. But he also passes the option to save, down to the Managers.

If the Bureaucrat decides to pass on all the money, but ask for *less* than what the System demanded, it will be an incredibly unselfish act of kindness to the rest of the economy. It is potentially very dangerous, as he will have to have resources in stock in order to meet the demands of the System.
If the Bureaucrat decides to pass on all the money, but ask for *more* than the System's demand, then it will be in an attempt to heighten efficiency for his own personal advantage. It will mean starving the system, but it can be justified if the economy is wealthy and he wants to prepare for the future.
Finally, if the Bureaucrat does not pass on all the money, regardless of what he is asking from the Managers, it should be regarded as an act of 'evil', as the money is then wasted and the economy is starved.

All these possible courses of action can be said to form a scale of banal evil, going from the unselfish altruist, on through the transmitter of orders, further on through the efficient bureaucrat, ending up with the downright evil or apathetic dictator. The steps on the scale can be evaluated by looking at the level of information the Bureaucrat is basing his decisions on. The Bureaucrat is at the top of the game's hierarchy and food chain. He answers directly to the System and he has the most insights into the state of each area of the game system. He can, if he wishes, gain information of every game participant's status and possessions, and make informed decisions when he passes on orders in the system. As I will explain later, when I describe the design of the aesthetical and informational affordances of the game's 'Factory Information'-page, we intentionally made it less than effortless for the Bureaucrat to get the information, as we would like to foster banality and examine if players would care for other parts of the system than their own.

The Manager

The Manager can save up both resources and money. Resources can be saved for times where the economy is starving, and money can be spent on either wages or useless commodities. This leaves the vast majority of power and agency in Banality with the Managers, as they are able to starve both ends of the system. The Managers choices in the game resemble those of the Bureaucrat, but with the addition that he decides which Workers that get to work each turn.

The Manager role is by far the most demanding in the game. Managers have to have to make sense of quite a lot of numbers both going up and down in the system, and they have to calculate and speculate in whether or not their workers will work for the wage they are offering. Because the Manager's fate in regards to promotion and demotion is decided solely upon his efficiency, the

procedural layer strongly urges the Managers to be efficient and thereby drain the economy. Deciding who should work could seem like an easy task, but there is more to the decision than just picking the first guy on the list. If a worker becomes increasingly efficient, but the manager is not, the worker is likely to take over the manager's job during promotion/demotion phase. Managers, like Bureaucrats, have to decide whether to look into their Workers' track record or not. If they do not, they are otherwise only informed of their Workers' efficiency, not if they are loyal, if they are starving or in other ways in need of help. The reactive agent is therefore not forced to exert his ludic phronesis, as no ethical dilemmas like e.g. 'loyalty vs. efficiency' is being brought to his attention, and he should therefore actively choose to let himself inform about these potentially ethical issues, in the 'Factory Information'-page.

The Worker

The Worker has very little choice but to work. The idea behind Banality was to make the Workers feel bored and powerless, with very little agency, and thereby urge them to work towards promotion. As the system in charge of promotion looks only at efficiency, only efficient player behaviour is ultimately encouraged. The only way a worker can appear to be efficient to the system is if he works, and even more so if he works for a lower wage. This could lead to the paradox of Workers starving themselves in order to be promoted.

If Workers discover that they are not being paid as much as they were last turn, would maybe decide not to work for anything less than what they were paid before. Because going on strike in the game only works as a collaborative effort, players that decide not to work put themselves in a worse position than their working colleagues. And because Workers cannot communicate with each other and organize a strike, the *prisoner's dilemma* seems to encourage all Workers to work every time they have the chance.

The three roles of the game are each designed with their own set of affordances and constraints. Though some players have powerful agency over others in the system, none of them are given any means to communicate or express any values, other than the ones that can be expressed through the strict procedural processes of the game's economy. This is done to radically limit the players' ethical agency. Not only do we not want our players to receive any meaningful feedback from the system. We do not want to provide them with any meaningful way to give feedback to each other or

the system. Workers are therefore in the mercy of their Manager, and it seems they should not expect any sympathy. Common to all three roles is that their affordances and constraints are design to cater to one specific player model, namely the efficient and cynical bureaucrat.

In the following I will account for how we interpreted the nature of Eichmann and the banality of evil, and adapted it into a banal player model.

Who is Eichmann – Modelling the Banal Player

Otto Adolf Eichmann is often referred to as "the architect of Holocaust" even though this may be a bit of an overstatement. He was more like the logistics expert of Holocaust. An efficient bureaucrat who followed orders (Sicart 2009b, 192). When Hannah Arendt witnessed the trial against the man responsible for the mass deportation of Jews to ghettos and concentration camps all over Eastern Europe, she saw a simple-minded man, susceptible to flatter and highly impressionable by ideology. Throughout his trial, Eichmann continuously claimed to have been just a small piece of the nazi puzzle, a "transmitter" of orders with no real power to control anything. Yet he admitted to have deported millions of Jews, and depositions sent to the court by former high-ranking Nazis stated that Eichmann was a man that would use his power recklessly and without any moral concern, and that he would overstep the authority given to him if he thought he was acting in the spirit of his leader, to follow the *Führerprinzip*[8].

Sicart uses the character of Eichmann and Arendt's work on the banality of evil not only as a reference for a catchy title, but also to point to important issues regarding the ethical implications of informational distortion in complex multi-agent, hierarchical game systems (Ibid, 192). In systems where agents have operative power over both system and other agents within the system, limiting the agent's ethical agency through the design is ethically questionable. If we create a closed game without the possibility for players to create and import their own values to the game experience, then we encourage and afford the banality of evil and by a negative example emphasize the importance of letting players exert full ethical agency within the game world.

Some interpretations of Eichmann's deeds and the Nazi machinery suggest that totalitarian regimes can prevent the agents within their system from practicing their ethical agency, by obscuring the

[8] The principle that the Führer's word is above all written law.

causal chain between the actions they perform and the atrocities they produce. This can be done by intense control of the information within the system. By selecting the type and amount of feedback given to agents within the system, it is possible to detach the agent from the informational environment of the actions (Ibid, 192). The idea is, that it is possible to reduce agents to efficient input providers by only providing them with information on how well and efficient the system is running. Although the case of Eichmann may be a bit more facetted in real life, we can still use the example of the efficient, detached bureaucrat as a player model for our banal game design. By designing a game that keeps a tight control of its feedback system and accommodates a player model that will only want to be efficient within the procedural level of the game world, a reactive player, we should be able to sustain and expand on the banality of evil, ultimately leading players to react unethically towards other game agents.

Proceduralists (Bogost and others) advocate that designers can persuade and educate the players of their games, by designing procedural systems with a clear embedded meaning, and then simply ask the player to act out the rules of that system in order to connect the dots and understand the meaning. This kind of *procedural rhetoric* can be found in the so-called *persuasive games* (Bogost 2007) and the idea is that the player's development of successful game strategies, combined with a semantic contextualisation of the game rules, should make a clear statement about the nature of the best practices in the game. According to proceduralists, a player model based on Eichmann would constantly try to optimise his interaction with the game's rules system and mechanics, and the semantic layer would educate him in the error of his ways. When in the role of the bureaucrat, if the system provided him with a certain amount of resources and demanded him to produce a certain amount of goods, the reactive player would attempt to pass on as little as possible to the managers, as a high goods-to-resource ratio would prove him more efficient and in accordance with the game's criteria for success.

In Banality, the idea was to only give very little hints to the procedural rhetoric of the game. It was our goal to create a system so opaque and obscured, that players would have to go to great lengths to try and get an overview of it, thereby making it difficult for the reflective player to understand the procedural rhetoric of the game. We wanted to see if we could make players disregard the needs of others in the constant attempt to become more efficient, just like we would expect 'Eichmann the

reactive' to do, and we wanted to see if the players would feel tension from their limited ethical agency in the game.

In this next segment, I will account for specific design decisions made in regards to the aesthetical affordances of the game's interface and semantic layer. I will give reasons for the decisions and reflect upon them.

The Aesthetics of Banality

When I started designing the visual style of the game's interface, I quickly settled on using many of the aesthetics already provided by Facebook. Facebook has developed a brand and a recognisable set of aesthetics that I wanted to utilise in the game interface. I wanted it to look like a game, but I also wanted the players to have the sense of very restricted agency that official-looking Facebook buttons provide. Though Facebook is the world's biggest social network and medium for online self-expression, the titled, light blue Facebook buttons are something users will associate with a prescribed interaction. Except from the infamous "Likes this"-button that can also be used ironically, there is really no two ways to interact with Facebook through a button. If the button says "Send", something is send and received. So to diminish the field of expression for our players, I decided to let all player-system interaction be facilitated by Facebook buttons.

The aesthetics of the user interface places itself somewhere between the iconographic and impersonal representation, and the imagining-prescribing properties common to the interface of resource management games. It is a balancing of conveying the game state in an understandable and somewhat meaningful way, without creating too much meaning and room for imagination.
The modality level of the interface icons resembles that of most operating systems: The detail level and colour differentiation is low, and the nature of the elements is communicated through very abstract notions like 'Money' and 'Goods'. All representations are decontextualised and removed from any sense of time and space, and as such they become generic and a representation of the typical (Kress & van Leeuwen 2006, 161). Though the icons of the interface has some depth and shadow, I have tried to keep them as flat and low on detail as possible. Too much detail distracts the user from the data and function attached to the icon (Cooper et al. 2007, 304), and since we wanted our players to focus especially on functionality and efficiency, we wanted our icons to be easily decipherable. Again it is a question of balancing, as we would also like our players to 'care' enough for 'Money' and 'Goods' to acknowledge them as valuable resources that should be saved.

Representation of the Player Character

In regards to the emotional involvement of the player, the representation of the player character is especially interesting. The character icon is represented as a torso with a disproportioned, bald, head, leading the player's imagination towards an imagining of a board game piece without any other meaning than the physical representation of player participation. The player representation only serves to illustrate and convey the player's function in the system, and the functionality of the player is further emphasised by the text in front of the player's name, saying 'Bureaucrat', 'Manager', and 'Worker' respectfully. Especially the title of 'Bureaucrat' is maybe a bit too value-laden and should probably be revised in further iterations of the game, as it seems to attribute too much negative connotations to the role, and indicate a certain expected player behaviour too explicitly.

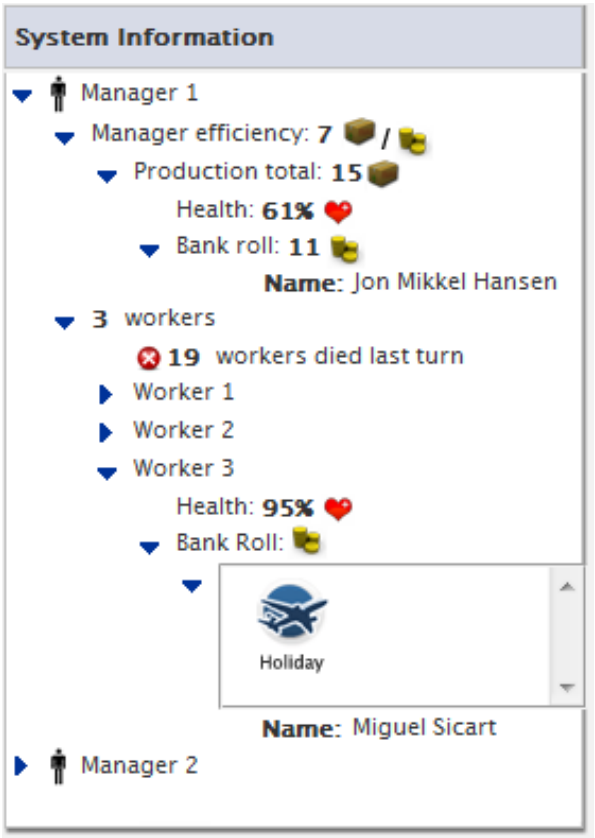
Attached to the character icon is a small thumbnail version of the player's Facebook profile picture. This, along with the player's name, is designed to attach the embodied player to the otherwise anonymous character icon. Some experimentation could be done in future iterations, to examine if some degree of avatar customisation would heighten the player's emotional attachment to his own role in the game, and if this attachment would strengthen his game experience. However, the game was initially an attempt to facilitate the banality of evil through an overly simplified simulation of resource management in a multi-agent infosphere, and the player's detachment towards other players should therefore still be sustained through the lack of visual feedback and affordances.

Though the character icon has no eyes, the turned position of the torso indicates that there is an eye-line vector (Kress & van Leeuwen 2006) pointing into the game interface, and in the direction of the player's status indicators. The status of the player is represented mainly by numeric values with up to two decimals, with a bold, black outline and placed on top of icons with high transparency. This is done to further sustain the notion of the strict, resource management required to succeed in the game, and direct the player's attention to the numbers.

In the last box on the right, icons for 'Factory Information' and 'Item Store' are situated. Both icons have a slightly higher level of modality, as they represent concepts that are more concrete and harder to communicate through very abstract icons.

The Factory Information Screen

If the player decides to seek information about the game system, he is presented with a hierarchical tree structure of the system's agents, and is then able to get information about other players' efficiency, production total, health, bankroll, purchased items, and even the Facebook-name of the actual embodied player playing the game. Players can only look down in the system. Information about other agents' efficiency, health, and bankroll can only be obtained if the information is placed below you in the system. The game uses the metaphor of the factory in order to communicate the system's hierarchy and chain of command, and it is the idea that bureaucrats should be able to inform themselves of the overall state of the game economy, by carefully going through the efficiency rate and savings of both their managers and workers.



Factory Information Screen

All workers look alike in the game, both to each other but most importantly to everybody above them in the hierarchy. Workers are completely objectified in the system's visual representation, as the icon for worker is just a desaturated pictogram seen directly from the front, and any dead workers are only represented by a number and a red dot with a white cross in it. The statement is rather clear. Little or no attachment to the workers is encouraged, and the emphasis is put entirely on their efficiency properties like the efficiency rating and the production total.

The idea was to create a simulation with a feedback system so limited that players would not only fail to create a meaningful causal pattern of their actions, but also make them care very little about what the numbers in front of them represented, and instead focus completely on being efficient. Then we would have succeeded in designing a multi-agent hierarchical system with limited ethical agency, and thereby have adapted the banality of evil to a gameworld simulation.

Summary

A lot of effort was put into limiting the player's ethical agency in relation to the other agents in the system. By creating a feedback system of numbers and generic graphics, we attempted to create a semantic layer that would direct the player's attention to the inforsphere's procedural layer, and not attempt to reflect on the ethical tension of being a part of a multi-agent hierarchical system.

When we eventually tested the game on actual players, we discovered that we had maybe done too good a job at detaching the players from each other and blurring the causality of their actions. The players seemed to get intention behind the procedural rhetoric, but they did not care enough for the game to experience any ethical tension of acting in the hierarchical system.

The following account of the first digital playtest of Banality is a perfect example of the creative stewardship of the player as moral being. By allowing players to talk to each other outside of the game, we discovered a great potential for creative expression in a game with otherwise very limited agency. As I stated earlier, there is no empirical data to back up the arguments made in this section, and they should therefore be seen more as reflections on, and an analysis of, the experiences I had as I witnessed the playtests.

Playtest

The first digital test was done with one bureaucrat, two managers eight workers. Players were given a strict set of rules, a very limited set of mechanics and provided them with a minimum of information in regards to game objectives and winning conditions (there were no real winning conditions). Already within the first round of play, we began to observe a pronounced sense of boredom in the players. As rather experienced players, they quickly understood what was going on in the game, namely that it was a resource management game with the scarce information as the main challenge in pursuit of success. But they didn't seem to find it very interesting. Instead, many of them expressed the wish for the prohibition on verbal communication to be revoked, both internally between workers but also between the different levels of the hierarchy.

When in the next round we allowed for all players except the bureaucrat to communicate with each other, something very interesting happened. The players began to play with the game. Instead of playing a game of strict and efficient resource managing, players began to play the game in a variety of ways. Some workers began to unionise and discuss minimum wage demands, others

decided to undermine the manager by refusing to work, and yet others began a cunning game of deceit and dishonesty by agreeing to go on strike but then work anyway. Managers also began developing different tactics and play styles, as sometimes they rewarded workers to try and get them to perform better, while other times they tried to convince the workers that they had less money than they really had, and that it should really be blamed on the bureaucrat. The bureaucrat continued to be bored.

One player bought an item, but other than that no one was investing in the item store. The player who bought the item immediately announced it out loud in the room, and quickly remarked that he had done it without any reason. It seems the purchase of the item had no value to him, unless he was able to use it as expression in the game, and as we had not provided any way for him to express himself within the game, he felt compelled to verbalise it instead.

Looking at player behaviour in the playtest, we must conclude that the game failed to captivate the players. The reactive part of the players had too little to do and found the mechanics of the game too simple and meaningless to use.

So how come not even ‘Eichmann the efficient bureaucrat’ found our game compelling?
The answer to that question could be that Eichmann does not exist in games. Though theories of procedural rhetoric tell us that games can have embedded meaning for the player to complete, they seem to simply expect that a player will want to complete that meaning. Banality shows us that mechanics and other procedural elements need to be thoroughly contextualized by a carefully crafted semantic layer of narrative and aesthetics, in order to be compelling enough for the player to get involved with. It also tells us that though players may find the overall aesthetics appealing, it has to be connected and in coherence with the procedural elements underneath. Players need to feel that they are interacting with the game system in a meaningful way, communicated through aesthetics, and the aesthetics should be designed in such a way that the player gets a sense of creativity when interacting with the system. Banality presented the player with a static, unmanipulable shell of aesthetics, and he ultimately rejected it. Because of the extreme lack of visual communication of the game’s state, the player’s ludic phronesis never got the impression that his actions created any kind of emotional or ethical tension anywhere in the system, and as such Banality succeeded in facilitating the banality of evil.

Banality in Play – Eichmann the Playful

During the development, we used the abstract player model of 'Eichmann the reactive' to try to anticipate how a cynical, efficient player would exploit the system's scarce resources, and prove that the reactive player would care only about promotion and winning conditions. We also used the model of 'Eichmann the reflective', though we did not really expect him to be very visible in the game. As it turned out, players showed very little indication of reflecting beyond the development of reactive playing strategies, and only in the verbal part of the analogue playtest did we record minor instances of creative expression in the game.

In retrospect it seems we should have also modelled 'Eichmann the playful'. Maybe we left him out because we attributed so sinister motives to our players that playful behaviour would inevitably be just a creative way of starving the system most efficiently. Or maybe it was because we expected playful behaviour to result in reflective and altruistic play patterns. Bottom line is that players must be allowed to be playful and they must be able to create their own meaning of the game. We never provided any means for creative expression or ethical agency in the game, and as such we should have created ethical tension in the poietic player. Only problem was that he was too bored to care.

Next I will provide a couple of insights into how Banality could be made more of a field for expression in future iterations of the game.

Beyond the Beta – Possibilities for the future

As I admitted earlier, the game in its current state is broken at worse, and just plain boring at best. It is difficult to say if there is a working and compelling game hidden somewhere inside, but that should not keep us from speculating in possible ways to improve and expand the game in ways that go beyond the procedural level.

Semantically, it would be rather effortless to afford players with a wider field of expression. Aside from the average avatar customisation, we could allow for the Bureaucrat to decide the look, name and product line for the company. We could let the resources have different aesthetical properties to try and see if some resources were preferred over others. On the procedural level we could allow for both the Bureaucrat and the Manager to be able to buy resources, at a great cost, from an external provider. This would tilt the asymmetric power in the hierarchy even more, as the bureaucrat could decide to send money out of the system instead of passing them down through it.

During development I suggested that game servers should be able to compete against each other like factories or companies in a free market. Though we ultimately came to the conclusion that it would be well outside the scope of the project, I still think it could be very interesting to see how player behaviour would possibly change, when the entire game system's efficiency would be put in competition with others. If a player's focus could suddenly be shifted from not only being the winner of his own particular game server, but also to be on the overall most successful server on the network.

The most important feature to develop for Banality would be a system for player-to-player communication. As previously explained, we discovered an intense creative energy in the game, as soon as we allowed for the players to work together or conspire against each other. The game should also provide numerous ways of communicating achievements and unlocked content, and players should be awarded titles like 'Employee of the Month' or 'Best Boss'.

Summary

Though Banality turned out to be a very unsuccessful gaming experience, we should still be able to deduct some valid points in regard to the semantic layer's importance in the creation of ethically interesting dilemmas.

The Banality project was ultimately an attempt at designing against the wishes of the creative player, and to foster instrumental play and the banality of evil. By providing little or no means for players to express themselves through the act of play, we deprived the poietic player of the ability to sustain a game experience and exert his creative stewardship in the game's infosphere.

Instead of being an example of ethical gameplay, Banality became a meaningful failure of procedural rhetoric. As we added playful features and room for expression in the game, players suddenly showed an interest in the game and the points it was trying to make, and some of the players would even play their way to the development of an overly efficient play strategy.
This does not mean that procedural rhetoric cannot make some points come across. But in regards to deep ethical gameplay, it does seem to have its limitations. If players are left out of the meaning-creation, and are deprived of their creative stewardship, there is simply a limit to how much they will involve themselves with the issue and values at play.

The development of Banality also taught us that designing ethical gameplay means understanding the player. Where we modelled for the rather one-dimensional player model of ‘Eichmann the efficient bureaucrat’, with very simple goals and motivations, we should instead have spent some time developing abstract play-personas. Perhaps this way, we could have better anticipated some of the wishes from the players, and created an infosphere that was more meaningful and engaging, and had better room and means for expression through play.

I will treat Banality further in the next chapter, as I will discuss the lessons learned from the case studies, along with the main points of this thesis.

Discussion

Aesthetics and Ethics

When Aristotle first formulated his thoughts on virtue ethics, it was done in an age without computers. The Greek philosopher did not have access to the same kind of powerful, hardware-driven simulation tools that we have today. The computers' ability to manage and distribute vast amounts of digital information makes it possible for us to simulate experiences and incredibly multi-facetted ethical dilemmas of life and death that would otherwise be limited to just a hypothetical question of virtues. And it is in the simulation that the theories of aesthetics and ethics meet.

The procedural elements of games have traditionally been attributed the most importance when it comes to ethical gameplay, but this thesis seeks to emphasise the reasons why the aesthetics and the semantic layer in general cannot be detached or downplayed. Aesthetics provides a cultural meaning to the procedural elements of the state machine that is the game, and is therefore immensely important when trying to engage the culturally embodied player in the creation of the player-subject.

A game becomes a simulation with the appliance of a semantic layer to the procedural one. In doing so, game mechanics, challenges, and goals are contextualised to a new level of abstraction, and players are expected to exert their interpretational skills and ludic phronesis in order to understand the game experience as a meaningful one. The aesthetics of the semantic layer plays a huge part in this interpretational process, as it has the potential of exploiting that the player-subject is a part of an embodied, cultural human being. The semantic layer informs us of our possibilities in the game, it communicates its rules to us, and it uses meaningful metaphors and points of cultural and ethical reference to communicate to us the state of the game.

Based on my theoretical analysis and examination of case studies, this thesis will claim that no ethical experience can be obtained without some degree of emotional attachment. It takes effort for players to exert their values and ludic phronesis, and they therefore need to commit to the game on at least a quasi-emotional level before they do so. As a simulation is by definition not 'real', any emotional attachment to it should be attributed to a certain amount of imagination of the player.

Visual props are great in this respect, as they can, if their level of modality is right, prescribe imaginings that are meaningful in the context of the game's semantic layer.

Lessons learned from the case studies

This thesis wishes to emphasise the importance of first the semantic layer of games as an incredibly important means for meaning-creation through simulation, and then the aesthetics as an absolutely vital part of this semantic layer. It is important to note that the aesthetics of a game should be designed carefully and in close relation with the procedural elements of the game. It is not enough, or even required, to focus on technically excellent graphics and aesthetical affordances. In this thesis I have presented case studies that both failed and succeeded in exploiting the ethical tension between the procedural and the semantic layer of the game's infosphere.

In Heavy Rain we experienced a gameworld of superior aesthetical detail and a carefully crafted mood and style, but the tight and specific visual style ultimately ended up limiting the player's agency to a degree were only a few gameplay instances could be acknowledged as informed ethical dilemmas. The aesthetics of Heavy Rain, combined with a rather strict narratology, create a semantic layer with so little flexibility that the constructivist player will find too little room for expression. Though the game offers no less than 17 different endings, the game provides very little re-playability, as the mechanics and the overarching storyline of the game is much too stiff and instrumental. The game's only real reward is found in the semantic level. Though completion time and other stats can be found in the game's log, and will probably be of interest to the reactive player, the reflective player only plays to uncover new semantic and aesthetic rewards in the game.

In CoD:MW2 the game cleverly exploited the ludic hermeneutic circle and the player's ludic phronesis, as the semantic layer changed while the procedural layer stayed the same. By utilising the same props for imagining, but changing the setting and narratology of the game events, the designers succeeded in letting the player experiencing the horrifying loss of virtues that must be experienced by a reflective mind in the modern battlefield. The overall composition of game chapters made the game a meaningful ethical experience, as the ludic phronesis built up in the game's foregoing chapters where turned upside down in the fourth, and then turned back around in the fifth with great effect.

In both Heavy Rain and CoD:MW2 the modality level is high, as their designers have relied on a tight attachment between in-game events and the embodied player. Both the airport chapter of CoD:MW2 and most chapters in Heavy Rain have little re-playability, but for very different reasons. The player's recollection have rendered most of the crime-solving and instrumental gameplay of the quicktime-events in Heavy Rain uninteresting for the reflective player, as a new level of consciousness about the game has been reached. One could argue that the completion of Heavy Rain would instead make it an open field of play for the explorative player who would want to discover all 17 endings, or maybe just jump in and out of chapters to explore the consequences of different courses of action. This revisiting of the ludic hermeneutic circle would challenge the player's virtues, and create ethical tension, as the new courses of action would be different from the ones originally taken, based on the ludic phronesis at the time. This argument would not necessarily be false, but it would demand a player commitment that the instrumental play of Heavy Rain should not expect.

It is also hard to believe that players will want to replay the airport chapter of CoD:MW2. Though the mechanics and the props are the same, the semantic layer tells an entirely different story of modern warfare, and the ludic phronesis that has carefully been built dismisses the player-subject and detaches the embodied player. This detachment is what ultimately deems the level unplayable beyond its first completion. In fact, by challenging the virtuous player in such a radical way, designers risk the chance of the ethical player never even completing the level. Just like proceduralists may falsely expect the player to want to play out the rules of a persuasive game, designers that radically challenge the player's ethics should also be aware that it could alienate some players. The virtuous and poietic player will however go to some lengths to sustain the game experience, and this, combined with the player's practical wisdom of level completion as a condition for game completion, will hopefully result in the player completing the level. It could be expected that some players would find the level too overwhelming and repulsive to play it through, and that could be the reason why the developers give the players the option to skip the level entirely.

Banality seems to fail at communicating an interesting ethical dilemma to the player. The procedural rhetoric of the game insists that the reflective player should acknowledge its ethicality on a very high level of abstraction, but because the simulation is flawed and incomplete, the

gradient of abstraction is broken, and the player has difficulty connecting the overall ethical aspect with the very simple and tedious procedural level with which he interacts. The player might 'get it', he just does not care enough to feel any tension, and the ethicality of Banality does not add anything to his game experience.

Banality is a negative example of aesthetics' influence on ethical tension. With its minimalistic design and aesthetical scarcity, it never fully succeeds in persuading the player to exert his ludic phronesis. We could even argue that the game's minimum of aesthetics is the only hint that Banality is even a game. Without it, Banality would just be a manner of passing on numbers through a system. In this respect, Banality models the idea behind the banality of evil, as it detaches the player from his actions and obscures the causal chain between actions and consequences. But Banality is a failure in the sense that it must be played by a reflective player in order to get its point across, and no reflective player will want to play Banality in its current form.

Aesthetics help players insert their values in games, as it draws the cultural, embodied player closer to the game and creates a player-subject. Aesthetics is associative and guides the player's chain of thought and triggers emotions that can influence the player's choices throughout the game experience. When I played Red Dead Redemption, the game's storyline forced me to involve myself in activities of questionable virtue in the service of a Mexican army that committed obvious atrocities against its civilian population. Meanwhile, as I was riding around, completing quests in the gameworld, I would stumble upon scenarios where soldiers were about to execute rebels or drive families out of their homes. In all these instances I found myself intervening and saving the rebels, even though it meant going against the procedurality of the game and loosing points in the game's honour system. Because my virtues were challenged, I was emotionally attached to the gameworld, and because of that, I was expressing myself in it through an inefficient playing style – that was, however, meaningful and fun.

The Banality game does not trigger emotions. The aesthetics of the game consists of a simple interface with props that are stripped down to iconic representations with very low modality, and players have very limited means of interaction with the game system and other agents in it. Our actions are only ethical if they matter to someone in the infosphere, and in Banality not only do they not matter to us, we have also no idea if it matters to anybody else. Our playtests made it clear that

Banality needs a field for expression, it being either a forum for discussing tactics with other players or the ability to show off one's achieved bonuses and items. The success of Facebook-games like *FarmVille* (Zynga 2009) seems to be connected to a winning combination of simple gameplay with compelling aesthetics that players relate to and care for, and a reward system that allows for the players to communicate their successful experiences to other people in the network.

How to use the lessons learned

It is not the point of this thesis to argue that the perfect game is an open-world sandbox game of free expression and interpretation. Though this type of game seem especially suited as field for creative player expression, I will argue that games of all genres have much to gain by letting the player be a part of the meaning-creation in the gameworld. But before designers can let go and leave creative responsibility with the player, they should make careful considerations of a number of things.

Game design should approach the player and persuade him to invest in the game experience and take responsibility in the creation of meaning. Play-personas can help designers understand the player, his motives for playing the game, and what he wishes to accomplish by playing. The game's aesthetics should suit the wishes of the play-persona, it should be compelling enough for the poietic player to sustain its fiction, and it should be open enough for the player to feel able and welcome to exert his creative stewardship in the gameworld. It is also important that the aesthetics and the semantic layer match the expectations of the player. A player who does not connect with the aesthetics will be prone to break the illusion, as the game experience has little value to him. Fortunately, elements of the semantic layer seem to be the main attractor of player attention, from website screenshots and plot summaries, to cardboard figurines in game stores, and players seldom involve themselves with games that they do not find aesthetically or semantically appealing.

A game's designer must balance the need for imagining-prescribing props with the need for a field of expression. If the props and setting of the game are too specific and inscribe a very particular imagining, players may feel alienated and detached from a closed and self-referential gameworld. On the other hand, the gameworld should have a set of values and modality markers that trigger emotions and recognition in the player, and it should make use of meaningful props that guide the player's imagination and understanding of his options.

The aesthetical affordances in the semantic layer should attempt to blur decisions and make them ambiguous, as long as they do not obscure the choices to a degree where the player feels betrayed and deceived by the game. Should this happen anyway, it should be an intended part of the game experience. Ethical gameplay can sometimes mean the detachment of the player, as the ludic phronesis acts as kill-switch of ethical tension. But this detachment should be foreseen and anticipated, and it should be incorporated as a part of the games design or narrative. Like we saw in CoD:MW2, we should attempt to re-attach the player to some degree, and let the reflective player interpret the ethicality of the continuation of game events after the kill-switch has been triggered.

Conclusion

As computers provide the tools for increasingly powerful simulations, and game designers widen the field for what can be treated and portrayed in games, a theoretical framework for the influence of aesthetics in ethical gameplay should be developed.

The framework for ethical analysis presented in this thesis emphasises that ethical gameplay is found in the relation between the procedural and semantic layer of a game's infosphere. With the claim that ethical tension is created in the player-game interaction, proceduralists have traditionally attributed more importance to the procedural qualities of games. This thesis points to the equal importance of the semantic layer and the simulation that arises from the contextualising of the game's rules by means of aesthetical affordances.

In my analysis of visual design and communication, I have shown that aesthetics and visual affordances is a direct way of sharing and communicating values. Modality markers help players interpret the values imprinted in the game's design, and this interpretation conditions the initial creation of the player as subject. Regarding the player as a culturally embodied moral being with a player-subject created in accordance with the affordances and constraints of the game infosphere, designers can exploit the player's poietic nature and creative stewardship, to include the player in the process of creating meaning in the gameworld.

By modelling various play-personas, designers can come to understand the values, goals, and motivations of the players, and based on the assumption that players are moral beings with a sense of creative stewardship, they can create meaningful, ethical experiences and dilemmas by challenging the players' ludic phronesis, and let the poietic player create the values of the game's infosphere.

This thesis has shown how aesthetical affordances in the designed infosphere help shape interaction, through the use of aesthetical consistency and imagining-prescribing props. By designing a gameworld of procedural and semantic consistency, designers can afford fields for creative player expression and allow for players to exert their ludic phronesis in the infosphere, without breaking the game's logic.

To sum up: The establishing of ethical gameplay is largely dependent on the aesthetical affordances in the semantic layer of the game's infosphere, as they help contextualise the game's rules, and create a meaningful field of expression for the player. The semantics and aesthetics of the game thus play an essential role in engaging the player both cognitively and emotionally in the gameworld; an engagement without which the experience of ethical tension is not likely to emerge.

Perspectives

During the writing of this thesis I have made use of theories of ethics, aesthetics, visual design, and interaction design. Along the way, when trying to connect theories of visual communication to computer games, I have found that the field of game studies seems to be lacking a thorough and comprehensive examination of the unique aesthetics of digital games. Though for example Cooper et al.'s essentials of interaction design and Kress & van Leeuwen's grammar of visual design can be incredibly useful and insightful, there are still properties unique to computer games that they do not cover. In regards to Cooper et al.'s visual elements, I am surprised that *movement*, the fact that some elements in the design could be moving more than others, is not mentioned as an ordered variable, and in regards to Kress & van Leeuwen, a development of more computer specific modality markers could be one approach to expand their theories to cover games. Properties like *definition*, *dimensionality*, and *mobility* could be some of the markers the visual elements of computer game could be evaluated and categorised by. An examination of the use of modality markers across the many imaginative genres of computer games could probably give valuable insights into the sharing of truth-values among a creative and imaginative social group. Is a photorealistic rendition of an alien life form in *Mass Effect* (BioWare 2008) for instance more 'true' than the 16-bit sprite characters of *Street Fighter* (Capcom 1987)?

I hope with this thesis to have shed a light on a field of research that needs to be expanded. I think there is a need for, and a huge potential in, the formulation of a computer game aesthetics. Computer games draw on many existing genres because it gives immediate access to our entire history of cultural reference, but digital games have unique properties that should be treated as something other than, for example, digitised versions of the artistic effects utilised in films. Every medium has its own aesthetics and means of communication, and the computer game medium has matured enough to move away from analytical models and design methods of other media and formulate its own. Books and theories about so-called 'game art' are oftentimes written by art scholars without any experience in game design or programming, and they should often be understood as an attempt to widen the field of art and not the field of computer game aesthetics. I believe that game aesthetics are too important to leave to art scholars. Game art analysis is often lost in the semantic layer of games, relating the aesthetics to the narrative and dramatic elements instead of the game's procedural elements.

I wish in this thesis to stress the importance of designers and artists working closely together when developing games. This is to make sure that the procedural and semantic layer work in coherence with each other and compliment one another in creating meaningful simulations of ethics and interesting and compelling gameworlds. Game designers should strive to create tools to help them design and built better gameworlds, as it can ultimately lead to less hours of expensive motion capturing, dialogue writing, and cut-scene animation, and at the same time give players a sense of experiencing a carefully crafted and flexible field of creative and playful expression.

Anybody involved in a creative design process should spend time to reflect on their practice, and describe both their failures and successes. Game designers should use their practical wisdom as players to try to understand the people that play their games and build useful and realistic personas.

We can expand on our ludic phronesis by playing games, but also by expanding on the repertoire of the embodied cultural player that is the foundation of our player-subject. We should read books, watch movies, go to art galleries, and we should constantly try to evolve and refine our interpretational skills. Only this way can we become better players and designers of games.

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Appendix