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„Cows, Unicorns, and Bulletproof Glass: Metareference
in 3D Video Games with Fictional Worlds“

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Preliminaries

All images used in this thesis ('screenshots'; see list of figures on the following page) were taken by me. Screenshots of other players and/or authors are only referred to by means of a citation of the source and/or a link to the respective website or image on the internet.

All video games used in this thesis (of which I took screenshots) have been legally purchased and are owned by me, unless they are only referred to. Emulators, ROMs (digital images of video game software to be used with emulators), fan 'remakes', and other modifications and/or modified original games have not been included in this thesis. All video games are commercial releases as they were and are available in the respective regions (US, EU).

Screenshots in video games for the PC were taken without the help of additional software or hardware tools. All were taken using built-in screenshot functions of the respective video games or, in the case of video games featured on Valve's marketing and distribution platform STEAM, taken with the help of STEAM's built-in screenshot function. Screenshots of older games were taken in their original native resolutions and aspect ratios (SVGA or 1280 x 1024, 4:3) or altered to fit the current technological standard (720p HD, 16:9) if the games could process widescreen resolutions. Screenshots for newer games were taken in 720p HD. Some screenshots were digitally altered to hide user names and nicknames used online (black bars).

Screenshots of video games for consoles were taken in their native resolutions and aspect ratios, with the help of a digital USB encoding device, a personal computer, and a video editing program. Screenshots of newer console games (Playstation 3 and Xbox 360) were not taken in their native resolutions (1080p or 720p HD), but were taken in standard VGA via composite AV cable, and then up-scaled to SVGA with a 4:3 ratio, because technical means to record HD 16:9 video signals were not available.

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1 Introduction

Many observers have pointed out that we seem to have reached a new age of scrutiny in the media (see, for instance, Wolf, W., *The metareferential turn*), and that the rapid multiplication of the media since the turn of the last century has led to the media talking more about themselves than about our reality, which they are supposed to refer to. After all, media are not intended to only entertain us, they are supposed to communicate with us, inform us, and make us think about our place in the world. Much research has already been done to account for this spread, multiplication and mutual influence between different media.

The same applies to research done on art. New concepts have been developed by post-structuralism to account for influences between cultural artefacts. Since then, theoretical works have considerably expanded the conceptual armament of the contemporary researcher of art and the media. Traditional concepts of medial semiosis and narrative theory have been adapted to be able to accommodate works that question their own verisimilitude and the conventions of Western 'realism' or illusionism in general. This self-scrutiny has since even sifted upwards into aesthetic concepts. The theoretical landscape has changed in unison with the targets of its research.

In the history of the media, the latest entry into the family of cultural artefacts and medial objects is probably the video game. Some research has already accompanied the video game in the course of its rise to one of the most commercially successful media since the introduction of film and television in the 20th century. Generally, however, the video game seems to have been largely ignored as a form of lowly entertainment until the next turn of the century. Since the millennium, an unprecedented amount of scholarly works has been dedicated to the serious study of video games. Uniting practitioners (designers), scholars and recipients (players) of video games, there is a continued and shared interest between all these groups to treat the video game with the respect it deserves. Video game histories have been written, online journalists have established comprehensive databases of video games released over the last thirty years, researchers from different academic backgrounds have flocked together in a unified attempt to describe and theorize video games in order to establish university programmes with bachelor and master degrees in game design and game research. Much of this research was only possible

due to the love and determination with which the community of video game players and designers has established a large canon of material to be analysed. What is probably unique to video games is that their consumers played an unprecedented role in the collection, archiving and analysis of everything revolving around video games. Generally, what seems to be the case is that, as video games had such a bad standing among the media for a long time, the community (designers and players) of video game lovers is much more uniform than communities revolving around established media such as film, simply because playing video games, until recently, was often viewed with contempt and met with shaking heads. This has apparently increased the determination with which people defended the products they love even more in the case of video games.

The central questions, then, are how video games fit into the medial landscape and whether they are also subject to developments that can be observed in other media. Furthermore, there is the question whether video games can be analysed according to the same criteria as other media, or whether we need a wholly different approach. What we may also be interested in is how the video game community managed to tighten its bonds, and if there is something in the video games themselves that can be observed to contribute to such a tightening. These are exactly the questions this thesis will attempt to answer.

1.1 Research Questions

This thesis is an attempt to unite research on medial self-reference and its central functions and research on video games. Using a combination of analyses of two video game genres and semiotic theories, it will attempt to show that one central function of medial self-reference in video games has been to draw a community of experienced designers and players together in something that could be likened to an exchange of ideas between practitioners and consumers of digital artefacts by means of the artefacts themselves, at least to a certain extent. Therefore, the central questions of this thesis will be:

1. Can a video game be viewed as a semiotic system? If so, what is unique to it and what does it share with other media? Can we analyse video games according to existing theories?

2. If media talk about themselves, is this also true for video games? Do they fit into the picture, and have they appropriated this self-scrutiny from their beginning? What do they refer to, where do they take their input from?
3. If they refer to themselves, how do they do it, where do they do it, and which functions does self-reference have here? Is it simply to entertain, or are there less obvious functions? And which conclusions can we draw from this?

The following section will lay out the methods used to answer these questions.

1.2 Methodology

This thesis will work with a combination of approaches. It will take insights and methods from the new discipline of Game Studies, which is a loose interdisciplinary group of established and new researchers focusing on the serious study of video games. A wealth of scholarly writing has already been produced since the turn of the 21st century, and some theory and methods for video game analysis will be taken from here to establish what a video game is and what it consists of, what makes it unique.

For the analytical part, the thesis will take input from intermedia research, and will look at some approaches to medial self-reference. The central approach used in this study will be the concept of *metareference* (see Wolf, W., *Metareference* and *Metareferential turn*, see Hauthal et al., *Metaisierung*). It is a transmedial, transgeneric and transdisciplinary approach for accounting for instances of self-reference in a variety of fields and medial self-reference in particular. Metareference is a special case of self-reference, and the thesis will attempt to marry the theory of metareference and the theory of video games in order to uncover how video games make use of self-reference in general and metareference in particular, both in the communication process with their players and, from a semiotic point of view, in their constitution of meaning.

Another side objective is to take a look at the structure of video games, how they structure the player's experience of the game. Here, narrative, seen as a principle of structuring events, will become a useful tool. This part will re-examine narrative in video games, because the structuring principles of narrative fiction, film and video games on the macro-level seem to be quite similar. This will help in locating instances of metareference in the video game examples. Isolating different ways of engaging video games, based on the

distinction between free play and game play, will tell much about how metareference can be utilized from a designer perspective to contribute to community building.

The insights gained will then be set into relation to the community of designers and players, and the thesis will turn towards the functions of metareference in video games. It will attempt to determine whether these references target something in particular or a loose variety of things, and what will surface is whether these references discuss the object of analysis (the video games) or something else.

In general, the thesis uses a structuralist approach to video games. It is a known problem of structuralist approaches that they usually fail at taking the recipient back into the equation. However, this thesis is not interested in the experience of play, but in the way designers structure game play and free play in video games in order to make access to vast game worlds easier (thereby addressing a larger target group) while still managing to appeal to their most trusty fans. Ideally, the thesis will be able to uncover ways of appealing to this group while still leaving the structured game play intact. Taking free play within confined structures of rules and narrative frames as the most common way to challenge a specific type of players as a starting point, we will see that designers use cryptic messages and riddles that may have nothing to do with the structured experience of the main game to address these players.

1.3 *Structure of the Thesis*

The first chapter will be about video games as artefacts and the video game as a medium. It will contain a discussion of what a video game is, how it is different from other media, and what the properties of a video game are. It will also contain a brief overview of the current market situation and an extra section about narrative in video games, an issue that has sparked a heated discussion when Game Studies as a discipline was still in its infancy. Based on these insights, the subject of the thesis will be delineated from the wide range of digital artefacts that can be called video games.

The second chapter will contain the main theoretical approach that will be used in the analytical chapter. Here, some important concepts will be revisited, such as immersion, and the discussion will then move on to theoretical approaches to medial self-reference. This section will explain the

multidisciplinary concept of *metareference*, which takes semiotics as a starting point, but is in fact a mixed semiotic, communicational, and cognitive approach. The section will also contain an overview of other extant approaches to self-referentiality in video games. One subsection briefly discusses the semiosis of play. Both semiotic approaches will then aid in analysing *metareference* in video games.

The third chapter is the analytical part. The first section will explain according to which criteria one can subdivide instances of metareference in video games, and where one can expect self-reference and metareference to occur. In the following subsections, many different examples with a combination of different devices and targets will be discussed. The data gained from this will then be drawn together and will be set into relation to the community of designers and players.

All results will then be summed up in a conclusion, which contains a few prospects for further research.

2 Video Games, their Place in the Medial Landscape, their Aesthetics, and the Subject

The field of video games is an unusually large one, and one that features a huge variety of different types of games, different genres and different medial input. The following chapter will, therefore, first delineate what exactly can be understood by the term 'video games' and by the term 'video game medium', will then move on to 'video game genre' and proceed to a small chapter of historical overviews of the video game. Here, a brief outline of the status quo and current trends will be given in order to situate the subject of this thesis among many other different types and trends in video game production. Furthermore, it will feature a subsection on characteristics of video games, which shall introduce the reader to properties and trends regarding the formal, structural and aesthetic components of video games in general. This is followed by an introduction into the problematic area of video games and 'narrativity'. Finally, based on all the previous insights, the subject will be delineated and discussed.

2.1 Video Games: Medium, Genre, and the latest Stage in History

In order to state what exactly one is researching when analysing video games, it is necessary to first discuss whether the video game can actually be viewed as a medium, a genre, or both. A number of works have already attempted to address this issue, and although medium and genre are also problematic terms in the research of other cultural artefacts and the communicational channels involved in their constitution, what most have agreed on is that digital media, being mediated by computer hardware and software, are in almost all cases hybrid products. The same applies to the video game. Although there are existing genre differentiations for video games that have been in use in video game journalism for quite some time now, they are not very useful for establishing genre typologies, because they include significant overlaps (see, for instance, IGN's or Gamespot's classification schemes, see also Arsenault).

Another factor to take in mind is the current state of the wide field of video games, or, broadly speaking, the state of the market and of the technology used to mediate the video game. All these factors will be discussed in this section.

2.1.1 What are Video Games? Are they a Medium?

The relatively recent development of the serious study of video games has already produced a large number of works, including different approaches from even more studies, which attempt to define the nebulous term 'video games' both in terms of how they are different from other media and what their formal properties are. As such, there is a variety of studies that approach this problem from different perspectives, with each attempting to define video games and emphasizing different properties over others. Influential ones are, for instance, Jesper Juul's *Half-Real* (2005), Mark J. P. Wolf's *The Medium of the Video Game* (2001), Katie Salen and Eric Zimmerman's *Rules of Play: Game Design Fundamentals* (2003), and others. While these works contain extensive discussions of this problem from a variety of perspectives (e.g. philosophy, game design), they are also too broad for being discussed extensively in such a modest attempt as this thesis is. This section will, therefore, take a relatively recent introduction into the study of video games, Simon Egenfeldt-Nielsen, Jonas Heide Smith and Susana Pajares Tosca's *Understanding Digital Games* (2008) as a starting point, and will provide input from some similar discussions

where definitions or clarifications are required. What these approaches lack, however, is a discussion of whether the video game is some sort of “cultural genre”, as Espen Aarseth has claimed (*Genre Trouble* 46), or whether it can be viewed as a communicational and/or expressive medium, meaning that it uses a variety of sign systems to communicate something. I will give my own input to this question after we have discussed what a video game is, what distinguishes it from established media or other forms of communication. First, it helps to step back from ‘video games’ for a moment and consider that the video game is only the latest iteration of artefacts that date back a few thousand years and have probably always been there (see Juul, *Half-Real*, for a more thorough discussion of the video game’s relation to regular games). Let us consider what games (board games, card games, etc.) are.

Egenfeldt-Nielsen, Heide smith and Pajares-Tosca offer a broad discussion of different definitions of game (formal, pragmatic, communicational) (Chpt. 3, 22-44) and, being the contributors of the most recent in a series of different introductory books about the study of video games, draw all former insights together. Basically, games can be viewed in formal terms (their formal system of rules that establish play), in pragmatic terms (the game designer perspective – what makes playing a game interesting?), and communicational terms (many games are played with others and require communication). For the present purpose, it seems that a formal approach for delineating what games are will be the most fruitful one, as this paper will focus on games that are played in solitude. Furthermore, the thesis will research games from a primarily structuralist perspective. Let us look at a formal definition of ‘game’ offered by Jesper Juul:

A game is a rule-based system with a variable and quantifiable outcome, where different outcomes are assigned different values, the player exerts effort in order to influence the outcome, the player feels emotionally attached to the outcome, and the consequences of the activity are negotiable. (Juul, *Half-Real* 36)

Juul calls this the ‘classic game model’ – it is based on games that do not require technological support. Most ‘traditional’ games will fit in here – they have a formal side (the set of rules that enables game play) and will often require material support (let us call this ‘hardware’ for the moment) to enable the player to keep track of the game state (see Juul, *Half-Real* 38). So a game is, most often, a combination of formal rules and hardware support on the game side of things, and requires players in order to become a game. A game that is not

played is only a combination of the former factors. Not all games, according to Juul (*Half-Real* 52ff), will feature all of the components of the classic game model, but all of them will at least contain rules that govern behaviour and will allow players to influence outcomes.

The ability to influence outcomes is what is, in public parlance, often called 'interactivity'. As this term is notoriously ambiguous and is used to refer to a variety of things (see Zimmerman 158, who, among other uses of the term, distinguishes between 'cognitive' and 'explicit' interactivity, where the first means interpretation and the second literally the ability to influence a text), it may be better to use Espen Aarseth's term 'ergodic' (see Aarseth, *Cybertext*). While the term was originally developed to refer to 'literal interactivity' in hypertext novels, it can also be used to describe the mode of interaction with games in general and video games in particular. 'Ergodic' therefore means, for games, that a player will expend "non-trivial effort" in his interaction with a given 'text' (see Aarseth, *Cybertext*, Introduction), which means that the physical effort is not reduced to the turning of pages as with literature, but that the player will actually have to exert some form of non-trivial control over the text in order to make progress. Even more generally, this means that 'ergodic texts' are dynamic, that they contain variable elements that can be influenced by the recipient, or, in the case of games, the player.

Let us now move on to video games. Essentially, video games can remove both the 'hardware' support, as the computer will keep track of the game state (Juul, *Half-Real* 38), and can also remove the need for other players, because the computer is able to simulate an opponent. Furthermore, the rules of a game are here moved to the digital realm and are enabled by digital code. Software is able to both emulate the formal properties and hardware of a given system. As video games are both a different type of game and a different type of traditional computer software (an application like every word-processing programme), everything is included in software here. While, as in the case of games in general, the rules could, technically, be transplanted and would not change in a different game, the visual dimension (the hardware of classic games) cannot be neglected and will influence how a game is experienced. In video games, changes to game state are represented audio-visually. While this is enough to create a video game, there are also other types

of games that project an audiovisual representation of a fictional world. The ergodic part of video games, or the feedback loop between player and machine, can be likened to face-to-face communication, as the player not only converses with the system, but the system also communicates back in audio and visually (see Jones 5, who claims that gamers play with a game and are played by it; see Newman, *Videogames* 26-27 and Atkins, 146-147 for the same argument). However, games with fictional worlds – a term borrowed from Jesper Juul (*Half-Real* 121-162) which refers to the audiovisual representation of a diegetic world in a video game – also include an iconic layer (close to film) that can be processed in traditional ways, that is largely static. So, most basically, video games are a hybrid between ergodic and non-ergodic modes of interacting with a text. Structurally speaking, such games with fictional worlds also introduce framing structures that subdivide their audiovisual layer and space into distinct parts, which has led some scholars to interpret this structural subdivision in terms of ‘narrative’. This will be discussed in the subchapter on narrative in video games. To provide a preliminary definition based on Juul’s definition of ‘game’, a *video game is a formal system governed by rules, where the rules are mediated by software or digital code, that is played with the help of a technological device (console, PC, mobile devices), accepts player input and delivers visual output on a display device (LCD, LED or CRT technologies).*

Furthermore, to return to the problem of ergodicity, while a video game can also support a very large number of possible combinations of player actions and interactions with the environment, objects and other characters (if it has a fictional world), the possible actions allowed are already artificially reduced to a rather small number. While a combination of keyboard and mouse can, potentially, allow for a very large number of different input signals (one for each button, or more if button combinations such as ‘CTRL+A’ are allowed), one press of a button will always be bound to one input signal and one action. For console games, the means of delivering input are reduced even further, because a game controller will usually feature a much smaller number of buttons. For instance, the NES¹ controller had four buttons and a directional

¹ Nintendo Entertainment System, together with the SEGA Master System one of the most successful 8Bit video game consoles of the 1980s. It was released in the US in 1985, and in 1986 in Europe. For further information, consult ‘NES’. *Wikipedia*. 4 November 2012 <http://en.wikipedia.org/wiki/NES>.

pad for four or eight directions, of which most games only used two buttons plus the directional pad for actions. Modern controllers have, in many cases, ten buttons, a directional pad, and two analog sticks. While every action will influence objects, the environment, and characters differently based on their properties and how they react to a certain action, this will still also produce a finite number of outcomes, and not all of them will make sense (see Ryan, *Narrative* 6-9 for a similar argument related to hypertext novels). For instance, one can certainly try to talk to a wall, and in some games this might even produce a reaction (talking walls in the *Fable* series!), but in most cases, this possibility will not be included in the system and will produce nothing, unless a context rule is introduced to turn the 'talk' command into a 'cower up' command when near a wall (see Sicart). If one plays an abstract game that only requires the left mouse button, the system will do nothing if one presses the right mouse button. While the possibility cannot be ruled out that players will try unusual things and that some of them may lead to unexpected combinations (see Juul, *Half-Real* 76ff for an example of this, which Juul calls 'emergence'; see Newman, *Videogames* 41 for the same example), input that is not defined in the system will produce nothing. However, a combination of finite input and actions and a finite number of objects, environments and characters can still lead to a high number of unexpected outcomes, because what is not explicitly forbidden or not modelled in a game is usually allowed (see Atkins, 49-50), even if it was unexpected. Up until now, we have only been talking about the formal properties of games. Yet a video game is, as I have briefly mentioned, also a communicative device, not only in terms of communication with the computer, but also in terms of communication beyond the formal system. As computer software is, technically, able to emulate the 'hardware' and 'software' of every other medium or sign system (see Aarseth, *Quest Games*, 166), and as video games are also one type of software, we can expect the video game to be able to integrate a variety of different media and sign systems in expressing itself. While it may be a viable attempt to find out what exactly the video game has appropriated, assimilated and transformed in terms of other media, this thesis will view the video game as its own medium, claiming that it can be viewed as a collection of formal rules and a number of different sign systems that interact

with each other to form a whole (not a coherent whole) with dynamic parts allowing player manipulation.

This is similar to Kücklich's approach, who views video games as a combination of a non-trivial (the ergodic part) and a trivial machine (the represented world), and Nöth, Bishara and Neitzel's observations, who view video games as multimedial artefacts (173). This 'whole' is then, in many ways, different from other media while keeping some of their characteristics and transforming others. To summarize this approach, the video game is then a multimedial medium with a variety of different influences. The central difference is that a video game consists of a formal layer – the set of rules that sets it off and enables the game, which point to themselves because they have to monitor the boundaries of the game – and an audiovisual layer that is determined by the formal layer, but may include any number of different media and their conventions for transporting form and content. The player provides input to the formal layer to cause a change of states, and the formal layer will provide audiovisual output in form. In games with fictional worlds, the form will be more elaborate, and depending on the influence of different media, there can also be a large amount of content that this layer transports. While the fictional layer will use many media (written language, a sequence of images and audio) that have been used in similar ways to form the medium film, it does not necessarily have to emulate the structure of narrative film. How all these media are integrated into the audiovisual layer of a video game is a matter of debate, but the video game has different ways of using this input and always has a dynamic part that the previous media will lack. This combines to form a medial whole.

There are probably more objections to this approach than there are different types of video games. These may concern technology, because the technology used to mediate video games is still changing and can therefore not be viewed as a closed medium. They may also concern the software, as a video game can be changed at will and without much effort so that the video game is also dynamic here. Yet, for the present approach, I will take note of which communicational channel or which medium is used in a given example, and I will take note of medial or generic conventions that are transported where appropriate. Some influences in content may be easier to deduce than influences in form or style, as those may often leave us guessing wildly rather

than proving connections to other media. The easy way to distinguish is often simply to ask oneself what could, technically, also be done in other media and what only the video game can do, given its technological mediation. However, when analysing video games, one should always remember that in video games, everything is determined by a formal language, from the I/O level to the behaviour of each leaf of a tree, and that technically, nothing in a video game needs to have a real world correspondent unless the video game has been programmed to behave in a way that is similar to things in reality. In video games, a dropped ball (to use Eskelinen's often cited metaphor, see *Towards* 36) will not always fall down, it will neither fall down nor fall upwards, and in fact, there will be no ball unless the computer has been programmed to generate an image that resembles a ball. Still, much of the behaviour of objects and environments in relation to character actions is similar to the behaviour of these objects and environments in reality in most modern video games with fictional worlds.

2.1.2 Are there Video Game Genres?

The problematic approach to the term 'medium' in video games becomes even more of an issue when we move on to questions of genre, something that has also been haunting more established media. Here, the thesis will present a brief overview of approaches to video game genre and will then move on to the approach to genre used here.

For instance, Mark J.P. Wolf has written extensively on video game genres in two works (*Medium of the Video Game* and *Genre and the Video Game*).² He claims that existing genre classifications from literature and film studies may prove to be largely fruitless for video games, as the main factor that differentiates them is their interactivity (Wolf, M. J. P., *Medium* 113ff). While some video games project fictional worlds and could theoretically be classified according to their iconography or themes, this approach may not work for abstract games such as *Tetris* (Pajitnov and Gerasimov, 1986). He therefore proposes to classify video games in genres according to the central activity or action that is required in order for the player to progress in the game.

² Mark Wolf's *Genre and the Video Game* (2005) is almost identical with chpt. 6 of *The Medium of the Video Game* (2001).

Wolf provides the following list of genres (*Medium* 117): Abstract, Adaptation, Adventure, Artificial Life, Board Games, Capturing, Card Games, Catching, Chase, Collecting, Combat, Demo, Diagnostic, Dodging, Driving, Educational, Escape, Fighting, Flying, Gambling, Interactive Movie, Management Simulation, Maze, Obstacle Course, Pencil-and-Paper Games, Pinball, Platform, Programming Games, Puzzle, Quiz, Racing, Role Playing, Rhythm and Dance, Shoot 'Em Up, Simulation, Sports, Strategy, Table-Top Games, Target, Text Adventure, Training Simulation, Utility. He then describes them in more detail on the following pages (*Medium* 117-134).

Wolf admits that some genres were here solely included for “the sake of completeness” (*Medium* 116). However, if this list of genres is meant to be useful as a list of analytical categories, it may strike us that terms that generally do not have anything to do with games are featured here.

Genre is, in general, dependent on innovation and retention (Arsenault 164ff). Arsenault claims that genre also requires that it is transported by a social group that includes authors as well as recipients. The more input a genre receives in terms of works produced in a similar fashion, the more derivative new entries into the genre will become, and the more static the genre itself will become. A genre transports the preferences and acculturation of the mentioned social group, and it will often appeal to the tastes of a select few who keep buying genre products (Arsenault 162; also see Burn and Carr, *Defining* 19, for a similar argument).

Arsenault (150-161) relates the genre question for video games to innovation and derivation and includes a discussion of the term ‘genre’ and its inherent ambiguity. The formation of genre is also a question of according to which criteria a genre typology is formed. Arsenault points out the multimedial nature of video games, and that this may also complicate the development of a coherent genre typology. As in Wolf’s case, Arsenault opts to privilege game play instead of content, but points out that also game play involves different variables (such as player skill, avatar abilities, progression structures, etc.), and that it may not be a sure-fire way of establishing a typology of genres for video games. He includes the factor that video games are still changing, as is the technology used to mediate them, and that this mixing and matching is problematic to capture in a stringent typology of genres.

Arsenault (157-160) relates both of these factors to the nebulous term genre itself and to the humanist approach of trying to delimit genres in the way subdivisions are made in biology, which may not work for video games or art in general because what one is facing here is not evolution in the biological sense, where some species cannot mate with others because they are biologically incompatible, but mutation in the purest sense of the word (159; see also Burn and Carr, *Defining* 29). Arsenault observes that much of what is done in video games to advance the medium is in fact a further problem-solving step that may in turn create new problems (167ff). Finally, Arsenault arrives at a definition for video game genre:

From the production side of the business, then, video game genre can be understood as *the codified usage of particular mechanics and game design patterns to express a range of intended play experiences*. (Arsenault 171, italics in the original).

While this definition of video game genre is intriguing, Arsenault does not show in which different genres this approach would actually result. The power of existing genre differentiations cannot easily be broken; it may be easier to develop a new genre typology when the existing one has led itself ad absurdum, which will, given the current mixing and matching of different types of mechanics, game design patterns and modes of representation, probably soon be the case.

Further attempts at defining video game genre include Aarseth, Smedstad and Sunnanå's *A Multi-Dimensional Typology of Games*, who develop a list of fifteen (!) criteria to accommodate all types of games, and Egenfeldt-Nielsen, Heide Smith and Pajares Tosca's approach (see chpt. 3, 22-44) which collapses different types of games into four main genres (according to the dominant traits required to finish a video game, such as strategic thinking or quick reflexes). While these approaches are all tempting and interesting in their own right, it may, for the present purpose, be more elegant to use existing genre differentiations as they are in use on a variety of video game websites (such as Gamespot and IGN, an approach that is also taken by Burn and Carr, *Defining* 14-30 in their analyses of adventures and role-playing games).

This paper will select two genres from the large list given by Mark Wolf: the role-playing game (RPG) and the shooter. In terms of "intended play experiences" (as in Arsenault's definition, 171), the RPG will focus on character creation and character growth, both explained in terms of numerical statistics. It

will carry a focus on exploring landscapes and participating in stories, and is often structured by 'quests', a term that will be explained later. The shooter actually conflates different types of games, but its mode of interaction is often hectic and relies on hand-eye coordination and quick reflexes on the part of the player. Recent iterations have also focused on stories, and some feature quests, but here, the character does not change in terms of statistics, but becomes more powerful by acquiring weaponry to battle increasingly difficult foes. Some shooters also contain numerous puzzles the player has to solve in order to advance. While these are not clear-cut definitions, they will have to suffice for the moment. I will break down these genres when I turn to the subject in order to show similarities and differences in the most current type of RPG and shooter.

2.1.3 The current Stage in Video Game History

There are a large number of video game histories solely dedicated to establishing how the video game developed to become what it is today: something that originally started out as a niche product, but became a major cultural and economic factor that begins to rival film in terms of sales and distribution. The problem with such histories is that as soon as they are completed, they will already be outdated to a certain extent, as a new development in technology at large or video game technology in particular has changed the field dramatically. Therefore, while technically still relevant, historical introductions such as Mark Wolf's (see *Medium*, chpt. 1) or Egenfeldt-Nielsen, Heide Smith and Pajares Tosca's (chpt. 4) will already be outdated again five years later. While the latter introduction was published in 2008, there have already been some new developments that changed the market yet again. Thus, also Egenfeldt-Nielsen, Heide Smith and Pajares Tosca's section about 2000 and onward needs to be modified. Therefore, this section will give a brief overview of the current status quo.

Currently, there is an ever-growing trend towards video games for mobile devices, on the one hand, and video games that try to combat the economic power of traditional game publishers on the other hand. The development of mobile devices such as smart phones and tablet PCs has played an important role here.

Furthermore, a new trend is to produce both cheaper (not full price, as for high-budget console video games, usually between fifty and seventy Euros) and more easily interruptible types of games. This trend developed both to gain new customers and to allow these new customers to play while on the move. What has also changed are distribution and marketing methods, as publishers seem to move away from retail sales and instead increasingly opt to sell their products over the internet (as downloadable software, which may reduce the price for a new high-budget game by about one fourth). There is a further important factor that has played its role in these developments: the success of Facebook, which includes a large number of simple games to be played with friends and colleagues.

All of these are new target groups different developers, large and small, try to appeal to. The traditional, heavy-handed, multi-million-dollar budget games, however, still control most of the market, but publishers are beginning to think about new marketing models, such as the 'free to play' model which has already been used in some online games. 'Free to play' means that the game is free, but that in order to use all content instead of only the basics, the customers will have to pay a monthly fee. New input methods (mimetic games, see Juul, *A Casual Revolution*) have also allowed for new types of games to be produced. What Juul calls 'mimetic interface games' are games that use mimetic physical interfaces, which means that the player does not use a standard controller for input, but either a motion sensing device (such as the Wii Mote, which tracks movement by a combination of gyroscopic sensors and infrared technology) or an abstracted model of a real-world tool or instrument (a fishing rod, a guitar).

Generally, there appears to be a trend for easier, more positive, and more accessible games (in terms of input schemes), and towards shorter play sessions (see Juul, *A Casual Revolution*, for an overview). Still, there seems to be no end to 'genre games'. Other technologies, such as the recent resurfacing of 3D technologies in the cinema, have also been implemented in consoles (more specifically, in the Nintendo 3DS), but largely fail to be commercially successful.

Another development is movements that attempt to combat the market domination of publishing companies specialising in video games. Here, we both

have groups with a focus on experimental games that try to innovate on the level of mechanics and game play, and groups that try to conceive of video games as art and develop 'art games', accordingly (the 'indie' game movement and experimental game development groups at universities). A new business model, 'crowd funding', has also had its hand in this development, because it is not only increasingly used by freelance designers or the indie games movement, but also by established developers who are dissatisfied with the risk-averse publishers. Here, a designer or group of designers basically uses interested people as their 'publishers': they develop a concept for a game, state what they want to do, and collect money on the internet that is donated by people who would like to see this game on the market. With the upcoming 'Ouya' console, the first crowd-funded game machine will soon be available on the market.³

As a result, there has not only been an enormous growth of the market in terms of an increase of potential customers, but also the formation of a large number of diverging design approaches that clearly deviate from what the commercial video games industry is seeking.

As this large number of different developments in a very short period has shown, it is hard to tell what is going to happen next, and every prediction of what the video game market will look like next year has a high probability of failing. It seems safe to say that no medium ever wrote its history as quickly as the video game has been doing for decades now and that it will likely continue to do so by the second. Suffice it to say that multi-million-dollar games and their publishing companies are not the only fish in the pond anymore, but they still receive the largest slice of the cake in terms of revenues, and still have the upper hand in terms of game production – which does, of course, not say much about the quality of these games.

2.2 Video Games: Aesthetics and Narratives

The following subsections will examine video game aesthetics and their uneasy relationship with narratives or stories more closely. The section about aesthetics will give a broad overview of characteristics to take in mind when analysing any

³ See the Kickstarter site for this new console, <http://www.kickstarter.com/projects/ouya/ouya-a-new-kind-of-video-game-console>, last accessed 4 November 2012, which has, as can be seen, more than reached its original funding goal.

video game, and is intended to give the reader a basic understanding of which different factors are in play when a game is viewed as a unique cultural, technological or medial artefact, and what may contribute to the player's experience of the game. The section about narrative takes a look at which framing structures a video game may feature and if these framing structures can actually be viewed as a special case of narrative structure.

2.2.1 Video Game Aesthetics

Egenfeldt-Nielsen, Heide Smith and Pajares-Tosca base their understanding of video game aesthetics on what contributes to the experience of video game play, including its rules (see *Understanding* 97). They distinguish between three broad categories: 'rules', 'geography and representation', and 'number of players'. As mentioned, the rules would be the formal layer that determines the behaviour of everything in the game, while geography and representation are basically the fictional, aesthetic content of the game, having form and content and uniting space, time and graphical representation. Other useful tools for analysing video games include Konzack's approach (*Computer Game Criticism*), which provides a similar framework of things to take into consideration when analysing games, Aarseth's (*Playing Research*), which includes a number of perspectives but does not provide a toolkit, and Consalvo and Dutton's (*Game analysis*), which provides some useful starting points, but is maybe too specific to be applied to all games⁴.

Rules: According to Egenfeldt-Nielsen, Heide Smith and Pajares Tosca (99-105), the formal set of rules is transmedial and, technically, not tied to any specific medium, but a specific set of rules may not be able to be implemented in all media. Formal approaches do, as already mentioned, not take the experience of playing into account, but phenomenological approaches include contextual factors to add the experience of playing. The authors distinguish between 'interplay rules' and 'evaluational rules', where the 'interplay rules' are all rules that determine how game elements react to each other, and 'evaluational rules' are there to evaluate the performance of the player and

⁴ Frans Mäyrä has, to my knowledge, written the only comprehensive introductory textbook to be used in tertiary education so far (see *Introduction*), which also gives some useful starters, but is primarily intended as a thematic introduction into the study of video games, and not as a comprehensive toolkit. Still, the book is extremely useful, not only because it is unique.

determine the outcomes. They also take gameplay, or the dynamics of the game, into account, and define 'gameplay' as "the *game dynamics emerging from the interplay between rules and game geography*" (102, italics in the original; see Arsenault and Perron, *In the Frame*, for a more detailed approach). They point out that rules, geography and representation, according to their terms, will be interrelated and determine the overall experience the game delivers.

Geography and Representation: The authors' subdivisions include 'perspective', 'space', 'time', 'graphics', and 'audio' (107-127).

All games either use a first or a third person perspective (107ff), and video games can have the additional types of isometric and top-down perspectives. Some video games or video game genres will usually adhere to specific perspectives.

Space (116ff) can be represented in two or three dimensions, or mixtures thereof. Two-dimensional space can be divided according to how passage between discrete spaces takes place: into unconnected space (level structure), zone-based multiscreen space (moving between discrete spaces), and scrolling or seamless movement in two-dimensional space. Off-screen space includes active and passive off-screen space, where the former means that the game suggests that space continues beyond the individual screen and elements outside the screen do exist and can therefore, for instance, fire at the player from off-screen space, and the latter means that elements outside the individual screen are non-existent until they enter it. Exploration of space may be limited in some games, when the player is literally confined in space and can only move into specific directions (as in many side-scrolling shooters, where the ship is literally shoved forward by the screen). For another discussion of space in video games, see Aarseth (*Allegories of Space*).

For time (121), taking Jesper Juul's research into game time (see *Half-Real*, chpt. 4, 141ff and *Introduction to Game Time*) as an example, the authors distinguish between 'play time' (the time the player takes to play the game) and 'event time' (the category of time as it proceeds in the game space). Cut-scenes, which are basically non-interactive filmic sequences inserted at strategic points, break play time, while suggesting that event time continues

smoothly. The notion of 'pace' is introduced to account for the fact that even in games where play time and event time do not converge, the input delivered by the player is still instantaneous, regardless of how play time and event time map to each other.

Graphics (122ff) can be subdivided according to types of realism, based on categories developed by Aki Järvinen (see *Gran Stylistissimo*). Video games can have 'photorealism', 'abstractionism', or 'caricaturism' as their graphical style. Photorealism can be subdivided into 'televisualism' (mimicking the alleged realism of television) and 'illusionism' ('life-like' graphics despite fictional content, vivid graphics). Abstractionism does not make any claims to realism, and is usually employed in games without any fictional content. Caricaturism mimics the graphical style of comics or cartoons and their idea of 'realism'.

Audio (125ff) can be divided into vocalization (character voice), sound effects (sounds of game objects), ambient effects (e.g. wind), and music. The environment, spatiality and physics may influence game audio, and can, for instance, be used to convey information. Audio has similar functions as in other media, to establish mood, and to establish coherence between two radically different shots in filmic sequences, but it may also have a communicative purpose if it changes according to specific circumstances (such as change in music signalling the presence of enemies, see also Jørgensen, *Between the Game System*).

The number of players (130ff) can greatly change the experience of a game. Technically, the single and multi-player part of a game would have to be considered two different games (as in Aarseth, Smedstad and Sunnanå), as gameplay and the mechanics of the game will change dramatically. I will not discuss this in detail, because my examples are, except for one game, all single-player games.

The Interface: Although it is not explicitly mentioned, probably because the exact scope of the interface is hard to determine, it is another important fact to take into consideration when analysing video games. In most cases, what is referred to as the 'interface' is only the means of delivering input to the video game, so controllers and other periphery. However, the interface technically also includes the means of delivering output to the user of a programme (see

Jørgensen, *Between the Game System and I'm overburdened*, see also Weise, Andrews, and Ward for discussions of user interfaces in video games). Juul and Norton define the interface (IF) as follows:

[...] the interface is considered to be the software and hardware tools that the player uses to understand and affect game state. [...] The interface can include controller buttons, mouse clicks, menus, status bars, and field of view [sic!]. (Juul and Norton, *Easy to use*)

Video games can deliver output both visually and by means of audio. Generally, if a certain graphical or auditory feature of a game primarily has a communicative function that is related to the rules or behaviour of its constituents, it can be considered part of the interface. If such a feature primarily adds to the mood or atmosphere of a given game, it is not part of the interface, but part of the fictional world. The distinction will, in many cases, not be as straightforward as it seems here, but for the purpose of this thesis, this overview will suffice.

Cultural context: Here, Egenfeldt-Nielsen, Heide Smith and Pajares Tosca discuss different types of culture surrounding video games (see chpt. 6, 132ff). I will not discuss this part in detail, as it includes everything from wider cultural discussions surrounding video games, such as the by now infamous discussions of video game violence and its allegedly detrimental effects on its players, to more general medial and generic knowledge the players may have. I will, however, give input from the cultural context of video games in my analytical part later, because it is necessary for decoding some references to the medium or to specific video games.

2.2.2 Video Games and Narratives

Much in the early discussions regarding the serious study of video games has revolved around the so-called 'ludology vs. narratology' debate (see Frasca, *Ludologists*, for a very brief overview). Some scholars opted for studying video games in terms of more general theory on games, and some opted for studying games as narratives or in terms of narrative structure. Apart from the applicability of current cognitive narratology to a variety of different phenomena, this was also a heated and often inflammatory and polemic debate about

theoretical matters. Furthermore, it also had a heavy political and ideological side to it, as the establishment of a new discipline is also a battle for funding.

What, however, surfaced on a more pragmatic side of things is that this discussion was often a matter of serious misunderstandings on both sides, and it could be claimed that such misunderstandings are inevitable when one is beginning to search for a common language. Many ludologists employed formal approaches that focused on the layer of rules, while many narratologists focused on the level of characters and fiction, and some interpreted spatial structuring and progression or goals that 'frame' some recent and rather expansive games in terms of narrative structure or narrative frames (by which I do not understand cognitive frames from cognitive narratology, but quite literally structural frames). What divided these scholars, then, was as much a discussion over form and content as it was a discussion about the micro and macrostructure of modern video games. Furthermore, scholars seem to have had a knack for mixing up narration (the act of telling) and narrative (structure). Programmatic statements about the future of video games, personal gaming histories and game preferences seem to have also played a role. I will not recount the whole debate in detail here, simply because it is largely irrelevant to a primarily semiotic study and because much of what has been said and done has already been combined to form less programmatic and more reconciliatory approaches to video games (some of which are featured in the respective section on narrative in Egenfeldt-Nielsen, Heide Smith and Pajares Tosca). What this debate has yielded, however, are also a number of important insights: it has shown that a few video games may have closer links to film and literature, and that some may indeed have structures that can be viewed as narratives. Furthermore, it has shown that video games seem to be oscillating between 'showing' and 'telling' modes, and that a large part of the narrating is actually done by the player him or herself (see Nöth, Bishara and Neitzel 160ff for a thorough discussion, see Jenkins 123ff on enacting, also see Atkins 147ff on 'cooperative narration'). Most importantly, however, it has shown that only a formal approach that turns to rules and goals can describe all video games, and that the formal layer of video games will, ultimately, always have the last word in deciding what a completed video game will look like (in terms of production) and how it feels to play it. It will also determine, to a large extent, which factor is

emphasized in game play: the social factor, the competitive factor, etc. However, the narratological input has also shown that video games may not be as ‘liberating’ or ‘free’ as ludological approaches have sometimes claimed: in fact, many video games, and especially very complex ones, will always feature a dialectics of freedom over constraint (see Jones for a discussion of the semiosis of play, where Jones comes to a similar conclusion). They may give the player much freedom to play his or her way, but they will also severely restrict his or her possibilities for manipulating the game. What the debate has also proven, once again, is that fictionality is independent from narrativity, and that in video games, we are in fact dealing with a large set of transmedial systems of structuring things. A brief overview of entries into the debate will be given in one of the appendices, as the debate has clarified many assumptions about video games, but has only produced a limited amount of analytically relevant concepts and terms.

Egenfeldt-Nielsen, Heide Smith and Pajares Tosca also begin with this debate in a relatively comprehensive chapter on narrative (chpt. 7, 169ff). According to them, games definitely have stories, and these stories are a good way to cue the player into imagining what to do next. They also draw attention to the intermedial dimension: game entries into film franchises include stories that make “[...] [the] player frame actions in the game as part of a fictional universe”, but “[...] the act of playing will produce a different combination of events than in the movie” (171). They state that

[t]hemes and plots—however vague—enable players to figure out game interfaces and the rules of the game: what actions are available to me as a player?—and that is why most games use them. (Egenfeldt-Nielsen, Heide Smith and Pajares Tosca, *Understanding Digital Games* 172)

How is this, then, accomplished in a medium that seems to be so vastly different from narrative media such as literature and film?

The authors begin with a relatively broad and minimalist definition of narrative, which they see as a succession of events. For them, ‘story’ is the chronological order of events, ‘text’ is the textual or visual representation of these events, and ‘narration’ is the act of telling (172). There is no distinction between ‘story’ and ‘plot’, as the authors claim that these are identical for video games. They furthermore opt to use story, plot and narrative interchangeably, and describe all these as a “scripted succession of events that the player has to

perform in a specific order” (ibid.). Essentially, these are events that are very much ‘done to the player’ in the sense of being non-negotiable objectives that the player has to carry out in order to advance the game. What the authors seem to be referring to here is what Jesper Juul (*Half-Real* 67ff) has called ‘games of progression’, which feature consecutive challenges with clear objectives that must be completed in order to make progress in the game.

According to Egenfeldt-Nielsen, Heide Smith and Pajares Tosca, contextual factors also play a role. For taking part in these ‘stories’, the player will automatically apply knowledge from the real world if the setting is remotely realistic and knowledge from other fictional works if the game has a fictional setting, and these games feature many additional cues (e.g. dialogue, visual, actions) that contribute to the game story (173). However, as already mentioned, not all games with fictional worlds also have stories such as these, and introducing such organized sequences of events is often seen as an example of bad game design (174; see Ryan, *Beyond*, for the medium-independence and fiction-independence of narratives).

Storytelling: The authors distinguish between the ‘fictional world’, the ‘mechanics’ of narrative, and its ‘reception’ (174). The fictional world consists of settings and actors. In video game worlds, “[...] many of the elements are there to be seen and not used.” (175), and only elements that have a purpose with regard to gameplay can usually be interacted with (ibid.; see Aarseth, *Doors and Perception*, and Newman, *Videogames* 117 for a discussion of elements that only add to the ‘reality effect’ (Barthes) and are purely decorative, and such that have a purpose). Some recent games, however, will also have the possibility of interacting with objects that have no discernible relation to gameplay. What the authors also note is that many objects will usually signal when they have a purpose (a communicative function, related to the interface) (ibid.).

Game Space: The setting for gameplay (175). Game spaces will be ‘reductive’, they model some constituents of the real world to a certain extent, but will considerably reduce the detail of the model and will adapt the space to the purposes of gameplay.

Cut-Scenes: Cut-scenes (176-177) are (with a few exceptions) non-interactive filmic sequences that can be realized in video games in various ways. The authors draw attention to their “authorial control” and their narrative strength (176), they “introduce narrative tension”, and they can “shape the narrative in a certain direction” and “compensate for missing game narrative” (176). Cut-scenes can also be used to signalize the passing of time, or they can establish coherence when a change between different locations is taking place. They are closely associated with cinema and provide the player with additional information.

Many others have written on different uses and functions of cut-scenes. Rune Klevjer (see *In defense of cutscenes*) not only sees cut-scenes as retrospective acts of re-telling, but also sees cut-scenes as a way to anticipate or pre-tell certain events, which flesh out the event to come. Newman (see *Videogames*, chpt. 6, 91ff) similarly points out the informative functions of cut-scenes and adds that these are also important for marketing in non-dynamic media (such as TV ads for video games). In effect, cut-scenes can be a convenient way of both appealing to players who are familiar with the medium film and its storytelling conventions, and they can be a convenient way of bridging different time frames – past, present, and future.

Actors: Egenfeldt-Nielsen, Heide Smith and Pajares Tosca claim that video games can have elements that are both narrative and dramatic, but the main point of a game is to act yourself (178). The authors distinguish between ‘stage characters’, ‘functional characters’, ‘cast characters’ and ‘player characters’. Stage characters only add to the realism of the game and have no function or personality, they are only decorative. Functional characters also have no personality, but they have a function in the game. Cast characters have a function that is related to the story and may at least have a minimum amount of personality, and player characters are characters controlled by the player whose “[...] motivations and missions are decided by the story” (179).

Characters can be constructed through description (symbolic, naturalistic, real-life model), through their actions, through their relationship to space, through other characters’ views and through a meaningful name (179-

180). The authors address the often ‘flat’ characters of video games, but conclude that these may, in fact, be the most enjoyable video game characters, simply because they are so hollow and may therefore allow for easier identification (180-181; for an objection to flat characters, see Perlin; for the argument that flat characters can be more easily translated to different media, see Newman, *Videogames* 128ff).

Mechanics of narrative: By mechanics, Egenfeldt-Nielsen, Heide Smith and Pajares Tosca mean the way of organizing narrative action. Many games feature branching narration, and game designers usually regulate the impending exponential growth of nodes when introducing multiple branches by creating ‘plot bottlenecks’ at which individual narrative strands will have to converge (181). They further explicate this on the following pages (181ff), but the knowledge that there may be multiple narrative branches will be sufficient for the current purpose.

Quests: Quests are “[...] small ‘missions’ that players must perform; they structure a game’s action and create opportunities for storytelling.” (183; see also Aarseth, *Quest Games*). Although the authors claim that “[...] the most successful narrative experiences happen in games where our actions have noticeable plot consequences.” (ibid.), this is very much a matter of player types, and in many video games, the player will never have an impact on the story.

Quests are different from the “scripted succession of events that the player has to perform in a specific order” (Egenfeldt-Nielsen, Heide Smith and Pajares Tosca 172), which the authors have used to define ‘story’. Essentially, they are a different way of framing causally closed sequences. They provide a specific goal to be reached by specific means. If the goal is reached, the quest can be followed by another quest, and so on, to create a larger ‘macro-quest’. Especially in many RPG games, this macro-quest may then be interspersed with Egenfeldt-Nielsen, Heide Smith and Pajares Tosca’s ‘story’ as a scripted succession of events. If such a macro-quest is used to frame the whole game and is related to the ‘story’ of the game, I would call it ‘frame narrative’. A ‘frame narrative’ is, therefore, a *structured sequence of quests that are related to the*

'story' as a scripted succession of events and provide a series of goals that will, in the long run, provide a final goal to bring the story arc of the game to a logical conclusion. This is certainly in no way applicable to all video games, and it may not even be applicable to a great number of role-playing games, but it is a useful way of conceiving how some expansive games frame their story arc on a purely structural level. This says nothing about what the player does in between, if he or she embarks on other quests or delays the conclusion of the frame narrative forever, but to bring the story of the game to a logical conclusion and achieve the final goal (in most cases, the vanquishing of some unspeakable evil), the player will have to run through this frame narrative.

A scripted succession of events that must be performed, however, is technically enough to frame most 3D Shooters, in order to have, in specified intervals, things done to the player. Here, it is not required to provide specific goals other than a general and loose 'move forward', because most of these games are framed spatially (there is only one way to make progress in the game, one route) and what happens in between is the 'story'. Characters, contextual clues, and cut-scenes can provide additional input into the 'story', even without a frame narrative. Let us take a look at the following sample from a game with a frame narrative.

Skyrim (Bethesda, 2011) begins with a non-interactive scene (in this case, a scripted event that uses the graphics engine of the game, 'story'), in which our avatar is discovered sitting as a prisoner on a cart together with other convicts. One of these convicts initiates talk (basically, a monologue, as the avatar is silent), while the other is complaining and claiming that he is innocent. This opening has become a staple of the series. In *Morrowind* (Bethesda, 2002), we arrived by prison ship and were released, in *Oblivion* (Bethesda, 2007), we started out in our cell awaiting our sentence when things began to turn awry. Here, it is used as a metaphor for being unable to interfere – we are in chains and it makes no sense to run away, as the convoy is guarded by imperial soldiers and we are unarmed. The convoy arrives at an imperial bastion, where our avatar will be sentenced to death and can only watch as one of its fellow convicts is being beheaded. Just as we are lead to the scaffold and are about to face a similar demise, a roar shakes the ground and interrupts the execution. The soldiers and fellow convicts look around in fear, and then, out of

nowhere, a black dragon appears, sits down on a nearby guard tower, stares at us, and begins to thrash the fort. Only then is control handed to us and we are required to escape with one of our fellow prisoners, while the following escape route is basically a tutorial for the controls of the game and introduces us to our avatar's abilities. The role of the teacher is taken up by one of the fellow convicts or one of the imperial guards, depending on which of both the player decides to follow. The escape route, however, is the same. If we finally arrive outside and are free to go, we get our first quests, of which one contributes to the story and is therefore the first step in the frame narrative.

While this is, in narrative terms, a rather rudimentary part of a story, it is only revealed in retrospection how tightly this sequence has been plotted, because we are not only saved from death by a *deus ex machina* in the form of the unknown dragon, we are also introduced to our main adversaries for the rest of the 'frame narrative' (the dragons). In fact, we are even introduced to their leader, which is exactly the black dragon that made our escape possible. However, no explanation for why the dragon attacked exactly this fort is offered – but this is quickly forgotten after our destiny as a dragon-slayer is revealed later into the game, story, and frame narrative. In fact, if only the quests required to finish the game are completed in order, a skilled player would probably be able to finish the game in a few hours. In terms of story, the sequence of events and goals would be rather short, but they take us to different places across the land. The rather stereotypical frame narrative is not of literary quality either, but it can lead to some epic battles with dragons. What is more important are the many other quests that are encountered on the journey, as we meet many people with many problems who may ask us for our assistance. Technically, most of these never interfere with the frame narrative, but they also contain some scripted successions of events and goals. However, these do not need to be performed in order to make progress in the game. So, the question is if Egenfeldt-Nielsen, Heide Smith and Pajares Tosca's 'story' only refers to a succession of events that is required to be performed in order to conclude the game, or if this is any succession of events.

Although all of these larger or smaller narratively framed quests contribute to a multiform story (a term borrowed from Murray, *Hamlet*, who called this a 'multiform plot') that can be reconstructed by the player, they are

merely there to structure gameplay, as most of them are not interrelated in any way. If these converge at a certain point, it is more by accident than intentionally, and one will exert no influence on the other. If an analysis of these quests and their relation to the frame narrative using structuralist narratology would make any sense, however, is debatable. Although there are certainly many different stories and quests in such games, it would be hard to say whether any of them is more important than the other or whether the frame narrative of the game is set on an ontologically higher level than the other quest structures, especially as they can be tackled independently from each other. Furthermore, there is much possibility for free play that is not related to any of the quests whatsoever – players can literally spend weeks exploring the map, which has around 400 different locations, without even touching one of the quests or the frame narrative. Many recent role-playing games follow this structure, with some restricting the player more in the exploration part, and some restricting him or her less – but all of them use quest structures and story to construct frame narratives. Some of them feature mixtures between scripted events (such as the intro scene of *Skyrim*), cut-scenes and a lot of dialogue before, in between, and after the quest. A useful analytical framework for the structure of video game stories and quests, however, is missing, although Marie-Laure Ryan has put forward some suggestions for thinking about this matter (see Ryan, *Avatars* 200ff). One should, however, always take different player types into account, and technically, many games do not require the player to see most of their content (although many will use ‘achievements’ to reward the player for having experienced as much of the content as possible).

The question here is where the gameplay is intended to lead – players who play, for instance, *Diablo 3* (Blizzard, 2012) solely for experiencing the story once or twice will probably be very disappointed, because it has a heavy focus on cooperative play and on ‘item farming’, which means killing monsters in the most efficient way possible to earn better equipment in order to kill even more monsters, and a focus on cooperative play and helping each other to achieve this in higher difficulties. The games focusing solely on the story aspect will, probably, have a rather small replay value in the long run, and will often severely limit the possibilities of the player while offering more input in terms of story. Games such as *Dragon Age: Origins* (Bioware, 2009) are tightly

structured in terms of story and frame narrative and therefore offer little in terms of gameplay variation, but offer a potentially more intriguing story, such as a story of political quarrels in the face of utter destruction. In the case of *Dragon Age*, the focus lies on uncovering the story step by step, and the game has developing interpersonal relations between the avatar and his companions and uncovering their backgrounds as a side objective, which is rewarded by them acquiring special skills and becoming more useful in battle with time. Here, player types and experiences with this type of game may matter. Although it is certainly not a representative account, I found the game interesting the first time I played it through, but found it exceedingly boring the second time, while a friend of the family played it as one of his first role-playing games ever and was astonished at the possibilities the game offers, claiming that it would always be different no matter how many times one played it to the end. While this has been mentioned countless times, one can only repeat that video games will play out differently for different players, and that they can even play out differently for the same player even though some of their constituents may be largely static and some will only allow minor variations upon subsequent 'readings'. Although this may be an overgeneralization, it could be said that the ideal 'ludologist' player will also love stories, but will usually seek rewards that have a use in the world, such as more powerful weapons or similar useful objects, and that the 'narrativist' player will be content with having advanced the story to receive the next piece of it. Of course, less than 'ideal' players, real players, can most likely be found somewhere between those two extreme approaches, and I am fully aware of the problems of idealised player types.

To return to Egenfeldt-Nielsen, Heide Smith and Pajares Tosca's introduction once more, they additionally mention that quests have "[...] a semantic level, [on which, M. T.] quests demonstrate how and why a player's actions are connected to each other and to the end of the game's story; and on a [macro-, M. T.] structural level, quests embody the cause and effect relationship between a plan of action and its results, or between the interaction of objects and events." (183). Furthermore, they claim that some quests may "[...] not work because they fail to integrate the storytelling elements in a particular game: if quests feel disconnected from the plot, the game world or our characters, chances are that the bridging of the semantic and structural levels

has not succeeded.” (ibid.). Yet, as my examples have intended to show, some quests may actually form their own story arc, where each objective is connected to the other causally and semantically, but may not contribute to the narrative frame the game sets at all, and may still be enjoyable – the question here is what the player seeks in a given game. The more narratively minded may lament disconnected quest arcs that are not in any way related to each other, while those who play such games for ‘all there is to see and get’ may welcome that individual quests or sequences of quests do not interfere with each other and with the narrative frame the game has set. This ensures that an individual, extremely long playthrough composed of many play sessions can have the player experience everything there is to experience without the need for embarking on a second play-through only to do some parts of the story differently while having to experience all the elements that stay the same anew.

The authors then move on to their category of ‘reception’ (184-189) to include the player in their equation, and by means of an analysis of one *Resident Evil* game, a survival horror series that has largely moved from slow-paced puzzle solving and shock effects to a narratively driven action game without either, show that story arcs can span several games in the same series to offer the player a ‘familiar place’ begin with. They call this gathered knowledge from earlier games the player ‘repertoire’, which is basically a combination of genre knowledge, knowledge from the narrative and action of previous games in the same series, and the knowledge of where to gather tactical and strategic information (and is, obviously, based on Jesper Juul’s ‘repertoire’, *Half-Real* 95ff). They show how every subsequent play-through of similar games has the player add to this repertoire, which will probably make his or her life easier in other video games from the same genre because many genre video games have similar conventions as to input, their story, and the behaviour of their constituents. The player can deal with gaps the story may present by filling them in with repertoire knowledge and information that is discovered when playing the game.

As this ‘repertoire’ will become important in the analytical part, together with the cultural context of video games, we will now turn briefly to different styles of play and player types. We will discuss how modern video games, being the highly structured play experiences they are in order to appeal to a

larger group of different players, can at the same time also appeal to a minority of hard-core fans of specific genres.

2.2.2.1 Excursion: the Repertoire, Media literacy, and Styles of Play

Nöth, Bishara and Neitzel (*Mediale Selbstreferenz* and *Metacommunication*) give a good overview of theories of play and game. As the rules of a video game are, technically, non-negotiable unless someone decides to rewrite their code or cheat, contrary to 'play' (free play, children's play) and 'game' (structured play, as in video games) with human co-players where the human mind has to keep track of the game state and uphold the rules, a video game always imposes its rules on its players. So in essence, even the superficially most liberating of video games with no clear goals will have rules that determine their behaviour, which the player cannot change unless he or she hacks the game or uses modification tools. Furthermore, as we have seen, complex games will have a multitude of specific goals and framing structures that also form the play experience from a top-down perspective. Still, even the most structured and 'linear' of games will usually allow their players a certain amount of freedom to do what they want with the given set of actions and resources. Newman describes this as follows.

Videogames do not present endlessly variable scenarios in response to player performance and the enacting of transformations on the simulation. The player's performance is bounded by rules, whether defined 'externally' by the game or imposed by the player. And, as we have also noted, a variety of institutional and economic factors mean that even the most apparently 'non-linear', branching games in fact comprise a finite number of levels. So, the video game's 'adaptability' is a matter of a certain kind of bounded 'randomness'. (Newman, *Videogames* 104)

Roger Caillois (see *Man, Play and Games*) has distinguished between *ludus* and *paidia* games, where the first type corresponds to Jesper Juul's 'classic game model' as described earlier, and the latter is the equivalent of free play. I will follow Marie-Laure Ryan closely in her argumentation (*Avatars*, 198ff), who states that even video games following the *ludus* model can actually allow for *paidia* to occur (an observation that also Newman immediately makes in his chapter on narrative and play, *Videogames* 92). She applies Richard Bartle's player types (see *Players who suit MUDs*), who has distinguished between killers, achievers, socializers and explorers, and she claims that killers and achievers are primarily *ludus* players, and socializers and explorers primarily *paidia* players (199). While most players will usually be a mixture of those four

types, alternating between ludus (following the rules, making progress) and paidia (admiring the scenery, diverging from given goals, looking around or talking to people in MMOs), what surfaces here is that even in the most stringent games, there will usually be possibilities for paidia to occur within the confines of game rules at the bottom and framing structures at the top (see Newman, *Videogames* 24ff for more on player types and paidia players). A similar view is shared by Newman, who claims that “[a]s with the desire that is enacted in narrative, the player’s desire is to simultaneously progress and *retard* progress” (*Videogames* 106, italics in original). Moulthrop (*From Work to Play*) calls this notion ‘protracted exploration’, which he sees as one of the main charms of a game (60).

In many games, the case seems to be that no matter how well-structured the game is and how linearized the experience is, the designers actually expect that their players will never simply follow their directions and that many will stray from a given path or even try to subvert or modify the game to either suit their needs, or out of pure fun. As the video game is a medial product, but is also deeply rooted in computer culture, it seems likely that designers will expect at least some of their fans to have experience with either the one, or the other, or in the best case, both. The video game is therefore located both in the discourse of the media and in the discourse of computer technology in addition to its own discourse of the video game. All this can actually be added to a model ‘repertoire’ of the video game player, no matter how much or little experience he or she has in all of these fields. If such digressions from given goals or paths are expected, it makes sense to reward the player not only for outstanding performance in the intended play experience, but also for his performance in seeking to delay the prescribed path. It is an old tradition of many video games to do exactly this, to also account for the needs of paidia players who may actually also play the game in a ludus way, but seek other attractions that differ from the main goals of the game. In the long run, it has become a tradition to not only follow the main goals of a given video game, but to try out different things, such as exploring, seeking alternative paths, and trying out the limits of the game rules and structures, and many players know that riches may be hidden well beyond the prescribed path – and indeed, they often are. Still, even when the designer places rewards for diverging from the

given path, they can never be sure that players will actually find them, and much of the developed content will potentially go to waste.

Recently, it has become the rule rather than the exception to include ‘achievements’ for games, which are basically game-external rewards the player can show off via the internet to gain acknowledgment for having thoroughly explored a given game. These are additional goals that do not have much to do with the intended play experience of the game, but they are a convenient way of trying to cue the player into spending even more time with a given game, because they add the social factor of admiration for playing skills. These achievements are therefore a sign for a huge ‘repertoire’ (to use Egenfeldt-Nielsen, Heide Smith and Pajares Tosca’s terms) on the part of the player, something that should spell expertise with a given game. These achievements are often tied to exactly the type of play described above: to *paidia*. Combined with hidden rewards far off the main path through the game, we could say that all this can potentially add to the player repertoire.

Taking the above statement that many players of video games may actually also be versed in computer technology, and some may even work in various parts of the technology business themselves, it seems safe to say that game designers will also try to appeal to this group, and will hide rewards in the software constituents or directly in the code if these players try to digitally deconstruct a game in order to see ‘how the thing works’ (although retro-engineering and hacking are officially not encouraged due to copyright issues). More often than not, such rewards are either hidden in the sound files of a game, the interface, or in digital images, and require processing in order to uncover hidden messages. While this was extremely common in the early days of video games, the rapid development of technologies has caused, for instance, hidden rewards in the digital code itself to disappear, but some games still hide messages in images or sound files. These elements are usually meaningfully included into the fictional world of a video game, and are not explicitly marked within the game. As Bailey (*Hacks*) has shown, however, it can be hard to determine what was actually placed in a game intentionally and what is a remnant of digital code that was simply not fully implemented and ‘fleshed out’, logically integrated into the fictional world, in the final release of the game (what he calls ‘fossils’).

In our later analysis of video games to find instances of metareference, we will therefore only take the 'repertoire' into consideration – medial and generic knowledge related to video games and other media. Technically, some of these hidden rewards require the second, more technical approach to games in order to find them. However, this thesis will assume that while a given player may well possess much knowledge of different games, he or she will not be an expert in computer technology.

2.2.3 Verisimilitude – Coherence and Consistency in Video Games with Fictional worlds

This section will not present an exhaustive overview of the verisimilitude of fictional video game worlds. Technically, video games still have an uneasy relationship to the 'realism' of more established media, but they are certainly trying to approach it. Many structural and story-related breaks in video games have already been solved by various means (such as, for instance, by cut-scenes that were borrowed from film), but there are also instances that will make not only their realism, but also the experience of playing the game break down in a matter of seconds. What this section is intended to show is that the coherence of 'reality', as regards the constituents of our 'realities' and their behaviour, will be modelled to some extent in video games, but what makes the experience break down is not a matter of incoherences, but of *inconsistencies*.

A useful starting point is to view video games as *simulations* (see Frasca, *Simulation vs Narrative*, or Aarseth, *Genre Trouble* 52). What is normally understood by the term *simulation* are training simulators often utilised in aviation or combat simulators as they are used to train soldiers in the militaries of the world (Atkins 138ff). These usually aim at replicating the 'real thing' in considerable detail to prepare the pilot or soldier for problems he or she is likely to face in real transit or combat – they aim at familiarizing the subject with a certain situation and teaching the required motor actions, so that the subject will be able to utilize them almost unconsciously when the 'real' situation will require it. The more detail, the better (see Atkins 138ff for a detailed discussion).

Video games model situations and concepts, but they are not required to reproduce them in detail, as their primary purpose is to entertain, to offer the recipient opportunities for game play (see, for instance, Juul, *Half-Real* 170ff and Poole 27-50 for a discussion). While video games also take much input

from different media and the real world, they aim at establishing a structured situation with greater or lesser room for gameplay. As a consequence, they only model specific situations, concepts and actions while leaving out others (see Poole, 50). Of those situations they model, they only model some closely and in more detail and others that are peripheral to the intended play experience in less detail. A good example is the 'fire' commands of 3D shooters: they are reduced to the press of a button to fire a shot, and aiming is reduced to moving the crosshair on target and pulling the trigger. In reality, we would have to load the gun first, release the safety, probably use both hands to aim carefully, calculate and correct how much the trajectory of the bullet will deviate, pull the trigger, and deal with kickback and hopefully not break our hands while doing so. In other games, planting seeds and harvesting them is usually reduced to one or two quick button presses, while in reality, it is actually a series of different actions that require much more effort. So, while the fictional worlds of modern video games pretend to model real life as closely as possible, they are in reality highly abstract as regards player actions and the constituents of their fictional worlds, as everything has to be modelled from scratch. Yet, they need increasingly more processing power to project increasingly more detailed worlds, at least on a visual level. Why is this?

Thinking back, a large part of why early video games were often criticized as being a lowly form of entertainment may have amounted to the fact that they had nothing in common with both extant media and the real world, due to their highly abstract beginnings. The criticism levelled at video games, often from people who erroneously compared them to literature and film, may have also had a decisive impact on the types of games we get today: in fact, one is probably due to thank these critics for their scepticism, while one is perhaps simultaneously required to take this early criticism not too seriously. While modern games have surely learnt their fair share from their predecessors, and modern processors, graphics cards and physics engines deliver a spectacular amount of detail in geography, models, physics and visuals (not to forget sound), it could well be the case that high-budget games are indeed suffering from a severe case of striving to approximate the realism of film, or at least animation film (as Atkins has suggested, 17ff). In practice, however, video games will probably never achieve the kind of 'realism' that animation films

provide, simply due to the fact that actions and events are required to take place more than once in video games, while animation film can dedicate all its effort to storytelling and accuracy of representation (see Atkins 17ff). Video games are dynamic systems and have to be able to react to their players, something animation film does not have to take into consideration.

There are some works that deal with the alleged verisimilitude of video games (see Aarseth, *Doors*, and Atkins, for instance). What all video games with fictional worlds probably have in common is that they aim at establishing a largely coherent experience as it is delivered in film. As video games are highly incoherent experiences both with regard to space and time (see Juul, *Half-Real* 121-162, Poole 51ff), they have been seeking ways for either hiding or getting rid of these incoherences. Technology has been able to provide solutions for many of them, but some remain. The current video game with a fictional world is, at least compared to early entries, already a much more coherent experience, although video games will probably never be able to get rid of all of these perceived incoherences (such as loading screens on area transitions and repetition).

What is probably more of a problem is when elements that are, technically, identical and should behave the same way every time they are encountered, start to behave erroneously or differently for no apparent reason. It could be claimed that incoherence is no longer the main problem (if it ever was one to begin with) of video games, but that *inconsistency* will immediately strike the player if it disrupts the play process. As there are many types of repetition in a video game (copied objects, actions, characters, etc.), changes in behaviour become apparent immediately, unless a reason is provided or the context has changed (see, for instance, Sicart). Jørgensen, who researches breaks in the fictionality of video game worlds as regards the interface, comes to similar conclusions, claiming that coherence may be less important in establishing the verisimilitude of video game worlds than consistency (*Between the Game System* 157). Nöth, Bishara and Neitzel make a similar observation, although they are looking at the medial constituents united in video games:

Computerspiele tendieren zur Unmittelbarkeit, indem sie die verwendeten medialen Bausteine zu einer in sich **konsistenten** multimedialen Medienkomposition verschmelzen. (Nöth, Bishara and Neitzel 173, my emphasis, M. T.)⁵

Incoherences will, in many cases, be perceived as ‘features’ (to echo the famous Microsoft quote) if they do not interfere considerably with gameplay, while inconsistencies without a different context will be recognized immediately and will, in many cases, interfere considerably with game play. Some examples: the incoherent physics of many games can actually provide an additional source of entertainment. The two latest entries into the *Elder Scrolls* series (Bethesda, 2007 and 2011) are especially notorious for many such incoherences. Thus, one is able to literally stick to mountains and walk along their walls if the incline is smaller than ninety degrees. Together with the erratic physics of objects and bodies, a sport has developed from beating or stunning enemies on steep inclines and watching them tumble down the mountain.⁶

Bugs and glitches, however, i.e. inconsistencies in the representation and behaviour of video game constituents, can easily undermine gameplay. A mission-critical character getting stuck in a wall can often lead to the end of gameplay, and will cause the player to reload if an earlier save is available (for a psychoanalytic reading of glitches, their uncanny properties in relation to the real and hyperreal, and their uses in different video game genres, see Holmes).

Additionally, many game characters will survive potentially lethal attacks that would kill every human in reality in a matter of seconds. While, typologically, this is also an incoherence (see Juul, *Half-Real* 179ff or Poole 56ff), it is an incoherence as to real-world behaviour that enables game play, because characters that would die from such potentially lethal blows would quickly make the game experience a frustrating one in video games that are as expansive as modern games with fictional worlds have become. Some tactical shooters may seek to get rid of these incoherences (by introducing cover mechanics and requiring the player to actually use them to survive, see Sicart), but in general, the fictional worlds of video games will never model our realities in detail. Still, each game establishes its own verisimilitude, so in a tactical

⁵ “Video Games tend towards immediacy by merging the used medial building blocks in a multi-medial composition that is consistent in itself.” (my translation, M. T.)

⁶ See, for instance, ‘papagoja’, “Skyrim: release the tumbling snow bear!”, 12 November 2011, http://www.youtube.com/watch?v=7ZliDS_RYVY or ‘m0gdred’, “Oblivion – Bear Rolling”, 25 January 2010, <http://www.youtube.com/watch?v=xbJkyii6HWw> (both last accessed 4 November 2012). There are many more such videos of people obviously enjoying incoherent physics.

shooter claiming to have connections to reality, it may seem odd to have characters survive an explosion. The 'reality-effect' (see Barthes) of video games can therefore be found in their adherence to genre conventions and their adherence to their own conventions. This reality-effect is located in the *consistency* of the experience (rules and representation), not in its *coherence*. Although many video games with fictional worlds will seek ways to establish coherence of time and/or space, as this is the case in realist literature or film, this does not mean that all their elements will be coherent as to the general properties of our realities or to the perceived coherence of other media they can emulate. Having discussed this important aspect, we will now move on to the conventions of the two genres this thesis will analyse.

2.3 The Subject

The subject of this paper will be the most current brand of 3D role-playing games (RPGs) and 3D shooters featuring fictional worlds. These video games were released over the last five to ten years. First, their properties will be presented based on the chapter on game aesthetics in Egenfeldt-Nielsen, Heide Smith and Pajares Tosca, then, an explanation of why these two genres were chosen over other, probably more interesting genres as regards the following semiotic discussion. Many elements of the following discussion are, to a large extent, unwritten and cannot be proven, as they are a form of implicit medial knowledge. Most of these observations can, therefore, not be supported with reliable data, as there simply is no such data. However, the reader is invited to do his or her own analyses of these genres in order to add to or disprove these observations. Furthermore, it should be noted that I do not claim a general validity of these observations beyond the examples mentioned. There are many more RPGs and 3D Shooters that include or exclude some elements mentioned here, and many have a differing focus in terms of gameplay, especially those whose multi-player part is much more emphasized than the single-player experience.

The RPG is a descendant of the pen & paper RPG (see another attempt at describing the RPG genre in Burn and Carr, *Defining Game Genres*). This includes role-playing games such as *Dungeons & Dragons* (Gygax and Arneson, 1974), *Shadowrun* (Weisman et al., 1989), and *GURPS* (Steve Jackson, 1986). While each of these took a different approach to character

creation, game rules and character progression, and especially the first two were bound to fantasy or science-fiction worlds, what all of them have in common is that they featured a game master who was both responsible for tracking game progress and sorting out objections as to the rules and, additionally, for creating the scenario and storytelling. For digital RPGs, this role has been transferred to the computer, and in the type of RPG I will be researching, the single-player RPG, the story and scenario of the game are basically pre-structured and non-dynamic. As to perspective, I will feature both first and third person games, although the difference between them amounts to how much the player is able to see. First person perspectives only allow a limited amount of peripheral vision, and although identification with the avatars may be a bit more direct in first person games, third person games are probably more interesting in that the player has a much better view of the surroundings. All games featured here are real-time games, which means that play time and event time (to use Juul's distinction, *Half-Real* 141ff) will map to each other on a 1:1 basis, except for certain breaks in play time (such as loading, cut-scenes, etc.). There are also RPGs featuring turn-based combat or pseudo-turn-based combat, such as many Japanese RPGs/JRPGs. For instance, in the *Final Fantasy* series (Square Enix, 1987-2012), most parts have random encounters with enemies that are moved into a separate spatial frame (battle screen) with separate character representations (differing in detail from the representation in the fictional world), where combat proceeds in real time unless the player decides to set enemies to 'wait' when choosing commands. None of those are included here, as most Western (US and EU) turn-based RPGs were released years ago, and I will not include Japanese games for specific reasons that I will explain later. Most RPGs have photorealistic (illusionist) graphics or graphics that seem to tend towards caricaturism (cartoonish) (see Järvinen, *Gran Stylistissimo*). All of them feature detailed fictional worlds, some more expansive with whole continents to explore, some less expansive with areas and towns that are connected via a world map, where each town or area is a single node and next to no exploration is possible. They all feature a large number of different characters, while some of them fill their worlds with largely non-distinct 'stage characters' (as mentioned by Egenfeldt-Nielsen, Heide Smith and Pajares Tosca), while others at least try to vary appearances and voices. All

feature quest structures, and all contain one extensive, overarching 'frame narrative' that will mark the end of the game when brought to its conclusion, some feature a second quest that also frames the whole game, but does not interfere too much with the narrative frame. Some of these games feature much scattered material (dialogue, journals, books, etc., see also Carr, *Games and Narrative* 33ff) that adds to the frame narrative of the game and can or cannot be discovered depending on how far and wide the player has travelled and how much time he or she has spent with the game. Some of the smaller quests also contain information relevant to the main quest. None of the RPGs mentioned here contain cut-scenes, but some may use scripted events at strategically important points. Spatial breaks are here less common than breaks of time (see Juul, *Half-Real* 121-162).

All of these RPGs aim at establishing a certain verisimilitude of their fictional worlds, although most of them also do their part in undermining their own reality, which is why I have chosen them as examples in the first place. Some RPGs do so more (the *Fable* series is notorious for its humorous approach to the RPG genre), while others never do. The way character growth is treated may also differ. The *Elder Scrolls* series (Bethesda, 1994-2011) is based on the evolution of character traits and skills by means of extended use, in the *Fable* series (Lionhead Studios, 2004-2010), the character is not actively 'created', but the player can customize him or her and looks are determined by the way the player treats him or her. For example, eating too much will make the character fat, doing evil things will make it ugly, etc. The *Fable* series gives equal treatment to swordplay, shooting, and magic, and often includes puzzles where the player has to utilize all three correctly in order to progress. The *Elder Scrolls* series has the player choose a favourite set of skills while neglecting the others. In *Fable II* (Lionhead, 2008) and *Fable III* (Lionhead, 2010), most quests only have one solution and character progression is determined by how many 'evil' or 'good' quests the character takes on, while the *Elder Scrolls* series features many quests that can conclude in a number of ways based on the actions and behaviour of the player. What all of them have in common is that they favour spatial exploration and curiosity while including a lot of combat. While time will definitely progress if the player does nothing, the quests mostly do not impose time limits, and even when started, they will not automatically fail

if the player does not decide to advance them. So even though time progresses in the game world, quests wait for the player to advance them. What all have in common is that they contain a lot of material that the player may never see if he or she is not investigative, although there have recently been tendencies to include 'achievements' on a number of consoles that will point to these elements in order to encourage the player to take a closer look.

Most quests in these video games do not interfere with each other, so in almost all cases, it is possible to experience all of the content in the game without having to choose one over the other. There are, however, some instances in which a character killed in one quest may be missing in another. Furthermore, there is the problem of the 'closed work'. Technically, these games can hardly be viewed as closed works, especially as recently, many designers have begun to regularly offer new content (add-ons, 'DLCs')⁷ that can be added to the existing game and offers new quests, areas, and characters to enjoy. However, most of the quests included in these add-ons do in no way interfere with those of the main game, and designers will usually make sure that there are no significant overlaps. The reason for this may more likely be located in the reluctance to 'touch' the code of the main game on the part of the designers, rather than in the fear of ruining the experience for the players.

I will also briefly feature a type of RPG that is technically a subgenre, and is often called 'hack 'n slay' or 'dungeon crawler'. Here, the focus is less on character progression (although it is also important) rather than on collecting items in order to slay enemies for collecting even more items. These games most often use either a top-down or an isometric perspective, and many of them have one frame quest with related sub-quests that contribute to the narrative frame. They may also use cut-scenes between world transitions and prior to strategic events. Again, some contain much supplementary material that fleshes out the fictional world, its main characters and the narrative even more, but it can, as so often, be ignored. However, also these may use 'achievements' to cue the player into exploring.

First and Third Person shooters are a bit different. Technically, they have nothing in common with the side-scrolling or vertical shooters of the eighties and nineties, such as the *Gradius* series (Konami, 1985-2011), but seem to be

⁷ 'Downloadable content pack', a small content add-on for small money, offered online.

descended from a number of early pseudo-3D RPGs which added a projected z-axis to their 2D graphics to suggest depth (see Arsenault, *Defining*, for a discussion; Westwood, *Eye of the Beholder*, 1990 for an example). Their perspectives, graphics, and movement in most cases overlap with the representational conventions of 3D RPGs. Most of them choose illusionism as a visual style, but some also use caricaturism ('cel shading'). Shooters in 3D seem to be real-time in any case.

Some frame the game differently. Instead of adopting quest structures that are usually required to frame games with large, open worlds (such as some of the RPGs mentioned), they frame the experience by requiring the player to traverse indoor spaces that are oriented in such a way that they only allow for minimal exploration. Therefore, they are spatially framed, and present the player with a number of options to explore, but technically only allow one prescribed path to make progress. Yet, they often contain a large number of hidden rooms and nooks and crannies the player can visit to receive additional ammunition or information. This has the purpose of both steering the player towards his or her enemies and reducing the amount of scripting needed to provide a roughly consistent experience. Many feature elaborate stories and contain a large amount of cut-scenes and scripted events, some instead choose to deliver their story solely by means of scripted events (such as the *Half-Life* series, Valve Corp., 1998-2007). In other words, these games employ the 'stories' of Egenfeldt-Nielsen, Heide Smith and Pajares-Tosca. A few have taken the open worlds of many RPGs, have framed the game with quest structures and have introduced elements normally known from RPGs. The *S.T.A.L.K.E.R.* series (GSC Gameworld, 2007-2010) takes the obligatory 'inventory' of RPGs, the *Borderlands* series (Gearbox, 2009 and 2012) takes both the inventory and character progression based on experience gained from quests and enemies killed. In some, player behaviour matters in determining which factions will be hostile and which friendly or neutral, but other than that, personal character progression in the RPG style is never featured. Here, failing to arrive at certain points after a specified time can actually sometimes mean game over, in contrast to RPGs. Much of the material included in the stories of shooters is usually borrowed from relevant genres in other media, such as the science fiction or action film genre, and *Borderlands* (Gearbox, 2010) even

introduces the western genre into its story. The player can often collect additional material to flesh out the narrative even more, with some of these files, audio logs and journals providing background on the characters and some explaining events that took place prior to player arrival. Good examples for this are the sound recordings of *Bioshock* (2K Games, 2008) and the sound recordings of *Borderlands*.

One may also ask why I chose relatively recent games instead of older ones that are probably more widely known. There are several reasons for this. Firstly, although research into video games has already yielded a great number of different insights, most studies are suffering from the fact that they analyse video games that were released ten to fifteen years ago (see Buckingham, *Studying* 13, who admits this for their joint study). I acknowledge the importance of dealing with older games, if not based on their quality or worth in advancing the medium by a decisive step, then based on the fact that they have become static, do not develop anymore and are therefore easier to analyse. However, the problem is exactly that the situation today has become radically different from where it was ten years ago. The 3D games that belong to the 'traditional' branch of commercially marketed games have developed such vast virtual worlds and added such an enormous amount of detail to them, and have at the same time become more and more story-driven that most theories leaning more to the ludological side of things (emphasizing open game play and less structuring) have, to a large extent, lost much of the potency they had a decade ago. Additionally, video games increasingly approach filmic conventions and narrative structures in general in a number of ways, and are beginning to develop a specific and very distinct 'reality effect' (see Barthes) of their own, which by extension also means that their themes, formal, structural and representational conventions begin to become more 'hermetic'.

When a genre slowly begins to close itself off and become hermetic, it is also likely that such a genre will begin to talk about or parody itself. Together with the increasing tendency towards letting technology become 'invisible' and aiming at an increasing transparency of the medium, it is also likely that such video games can begin to talk about their own reality effect. Although a player of a video game will always have one foot in reality simply because he or she is interacting with a machine and software, and the medium cannot fully disguise

itself as of yet, this all seems to aim both at immersion and an increasingly intuitive use of technology on the part of the player. Yet, in video games, and paradoxically exactly in those aiming at hiding the fictionality of their virtual worlds, the player is often reminded of the fact that what he or she is dealing with is, after all, only a game.

Another reason for my choice is that, the 3D Shooter and the 3D RPG being the last and/or most recent representatives of genres that have to a certain extent characterized the video game like no other type of game, these genres transport themes and gameplay that have always been associated with 'geek culture' like nothing else. The reason why science fiction and fantasy settings garner only little interest and are often seen as 'geeky' and derivative is because they do not allow intrusion into the genre and its community of followers easily. While it is true that both are not particularly strong in developing believable characters with deep psychologies and instead focus on adventure and technology, the main reason for why many people do not like them seems to be that they are 'hermetic' as to their conventions and their themes – except for the most basic of correspondences to our realities, they are heavily fictional and live from the conventions they established themselves. Both genres seem to be *perpetuum mobiles* of their own brand of 'realism', where almost nothing can be inferred from other genres or realities (see also Jenkins 122, who also sees a clear link between video games and science fiction, which he relates to both of them creating worlds rather than believable characters). Although it is often attached to the sci-fi genre only, spectacle and the celebration of technology appears to play an important role in both. Many of the video games analysed here are no different. While the introduction of stories into both was widely met with either great enthusiasm or serious mistrust, it has also become an increasingly common way of at least giving some structure to extremely expansive and vast virtual worlds. Although both genres are still hugely popular and commercially profitable, there seems to be a certain 'elitist' stance to them that is both being acknowledged by designers and players alike, some kind of common ground between authors and recipients that could be said to contribute to community building (which is also mentioned by Burn and Carr, *Defining* 19). As such, both genres rely on a lot of context knowledge from other media and previous games that unites both the producers of such games

and the players, and although aiming at increasing immersion into virtual worlds, the opportunity for introducing devices that could be called, and this is the central focus of this thesis, *metareferential* (see Wolf, W., *Metareference*) always hovers above both genres. This means that, in semiotic terms, some references require much contextual and medium knowledge in order for the player to decode and be entertained by them. Of course, this implies that the designers have consciously placed these devices where they are, and the video game becomes an additional playground for an exchange of ideas between designer and player. Such exchanges appear to be impossible in games that do not feature fictional worlds, because these will simply lack the platform for communicating anything beyond their own rules. Video games with fictional worlds provide this platform, because they can use text and images to communicate meaning and can situate this within a roughly familiar environment.

I will only analyse video games that have been developed in the United States, Europe, the Russian Federation and Ukraine. The main problem here resides in the fact that many researchers drawing attention to metaphenomena in video games make generalisations about the alleged fictionality or non-fictionality of these artefacts based on examples that are both a minority of the minority of all video games and that are, additionally, thoroughly self-referential and metareferential as a whole. While such examples are tempting to prove a point, both cultural factors (the point of origin, where they were developed) and the issue that highly self-referential artefacts may well undermine the effect of metaphenomena should be taken into account.

For instance, it could well be the case that Japanese games have a different conception of the distinction between reality and fiction. While this does not mean that Japanese games cannot be analysed using US and European theories, the results of such analyses will be likely to perpetuate false assumptions in terms of generalisation if possible problems are not taken into consideration. If 'Western' illusionism is taken as a starting point for such an analysis and applied to Japanese games, the chosen examples first have to be compared to the whole of Japanese video games and then compared to US and European games in order to gather insights relevant to our theory of illusionism. Many have already mentioned examples for metacommunication (see, for

instance, Nöth, Bishara and Neitzel, 119ff) in video games based on some Japanese video games. Although these examples are certainly tempting to prove the point these scholars are trying to make, it is precisely the fact that they *are* examples from only a minority of Japanese games which undermines their usefulness for US and European aesthetic theory (see Ryan, *Avatars* 224ff; Newman, *Videogames* 98ff and Nöth, Bishara and Neitzel, 147ff for examples from the *Metal Gear Solid* series, Konami/Kojima Productions, 1998-2010; see Ryan, *Avatars* 224ff and Juul, *Half-Real* 184ff for examples from *Super Mario Sunshine*, Nintendo, 2002). Although Japanese games are certainly hugely popular in the West, are appreciated by many and have clearly shaped our understanding of video games tremendously, it is exactly that these oft-cited examples are problematic both in terms of illusionism and anti-illusionism in general and the frequency of metaphenomena in particular. These video games clearly tend towards ‘game’, and not per se towards ‘fiction’. The reason why I have excluded Japanese video games as a whole is, therefore, that a careful analysis and comparison of Japanese and US or European examples would probably merit a separate and more comprehensive paper. This is something this paper with its moderate approach cannot hope to achieve. This factor will be mentioned again in the conclusion, because it could be a fruitful goal for further research.

3 Theoretical and Analytical Concepts

Here, further theoretical and analytical concepts that will be used in the analytical part will be introduced. Combined with the subject of the thesis, which has been established above, and some useful tools from Game Studies, a thorough basis for an analysis will be available. Most of these concepts and terms are transmedially applicable, but may manifest themselves differently according to the media they are applied to. The second subsection includes some case studies and further theoretical input aiming explicitly at video games.

3.1 Transmedial Theoretical Concepts and Semiotics

First, immersion will be discussed. It is a valuable term simply because video games are often claimed to be particularly immersive. In fact, it is related to the ‘reality effect’ (Barthes) as it was previously mentioned, and can depend as

much on the verisimilitude of an individual medium as it is dependent on the cognitive effort and type of interaction required by the medium in question. Although an analysis of the immersiveness or non-immersiveness of particular elements of a medial work can also be fruitful, the analytical part will mainly research types and functions of metareference, and how specific elements in video games can transport metareference in order to appeal to a specific group of players. The experience of such elements can probably not be deducted easily.

The concept of metareference is more important and forms the basis for the current thesis. It will be discussed in detail based on the seminal works in which its framework was outlined. Having the knowledge of central types, devices and functions of metareference, we are equipped for proceeding to case studies researching related phenomena in video games, and then applying the concept to examples gathered in the 3D RPG and 3D Shooter genres.

3.1.1 Immersion

Aesthetic illusion and immersion are both very similar terms. They are both terms that refer to fictional or aesthetic work presenting itself as 'true', which means that the recipient will have the possibility of 'losing him or herself' in it. Different media and works manage this differently and some will actively seek to keep the player from immersing him or herself in the given artefact. As such, immersion and critical thinking are often perceived to be set on opposite poles, with one practically excluding the other. As aesthetic illusion is a rather well-established term in the humanities, but is mostly used to refer to literature and the visual arts (with good reason), this part will focus instead on giving a brief account of immersion and its implications, which is convenient because the term is established in virtual reality theory and thus has an immediate connection to video games. Janet Murray defines immersion as follows:

A stirring narrative in any medium can be experienced as a virtual reality because our brains are programmed to tune into stories with an intensity that can obliterate the world around us... The experience of being transported to an elaborately simulated place is pleasurable in itself, regardless of the fantasy content. We refer to this experience as immersion. *Immersion* is a metaphorical term derived from the physical experience of being submerged in water. We seek the same feeling from a psychologically immersive experience that we do from a plunge in the ocean or swimming pool: the sensation of being surrounded by a completely other reality, as different as water is from air, that takes over all of our attention, our whole perceptual apparatus... in a participatory medium, immersion implies learning to swim, to do the things that the new environment makes possible... the enjoyment of immersion as a participatory activity. (Murray, *Hamlet* 98-99)

In fact, although Murray here refers to digital, interactive texts, this definition could also be expanded to non-digital phenomena (as Ryan has done, see *Narrative as Virtual Reality*). While these may function differently, and immersing oneself in the work depends on different factors, what may be the main difference is the amount of cognitive effort required on the part of the recipient to imagine him or herself 'into' the world of the artefact in question. Thus, participatory, visual media such as video games may allow immersion to occur more easily, because multiple senses are blocked and the user is required to 'interact' with the medium, while immersion in a book will theoretically leave a different impression in the reader because the mental image of the world has to be reconstructed *in toto* (no showing) (see Ryan for a detailed analysis of narrative fiction, *Narrative as Virtual Reality*).

Based on VR theory, McMahan determines many factors for immersion to occur. As this thesis is not a detailed discussion of immersion in VR environments, only the factors contributing to immersion in video games will be mentioned. Firstly, "the user's expectations of the game or environment must match the environment's conventions fairly closely", secondly, "the user's actions must have a non-trivial impact on the environment" and thirdly "the conventions of the world must be consistent, even if they don't match those of 'meatspace'" (McMahan 68-69). So the player's expectations must match the conventions of the virtual space, the player's actions must have a certain impact in the world, and its conventions must be consistent (not coherent, as already mentioned). She also mentions that realism may certainly contribute to immersion, but that it may not have the decisive impact it is often claimed to have (McMahan 68). She subdivides this into social and perceptual realism, while the first means how closely social interactions match those of reality (in single-player games such as those analysed in this thesis, this factor will be rather low), and the second refers to the visual realism of objects, environments (or settings) and events in the game (McMahan 75). In video games, perceptual realism is clearly more present. She further mentions perceptual and psychological immersion, where the first relies on blocking as many senses as possible, and the second means mental absorption (McMahan 77). She mentions a 'social actor' in the medium (avatar in video games) as a further factor contributing to immersion, and the ability of the medium to react to the

user in a realistic way as another (in video games, this would be the idea of letting the medium disappear to create immediacy, see McMahan, 79).

Ryan mentions different types of immersion in relation to literary texts, but theoretically, all her types could be expanded to video games (*Narrative as Virtual Reality*). She distinguishes between spatial immersion, spatio-temporal immersion, temporal-immersion and emotional immersion (120; 130; 141; 148) for narrative literature. As video games heavily rely on spatial representations, it would be safe to say that spatial immersion is especially relevant for world-based games. Juul has shown that video games have a relatively flexible conception of time (see Juul, *Half-Real*, chpt. 4, 142ff and Juul, *Introduction to Game Time*), but especially world-based games will usually try to establish a coherence of time, as I have already mentioned, so temporal immersion should also be relevant. Emotional immersion is problematic (as video games are infamous for their rather ‘flat’ characters), but it should apply to at least a few games. Still, the player will probably feel attached to the fate of his avatar or his characters, as they are an extension of him or herself (see Nöth, Bishara and Neitzel, who view the avatar in the video game in similar terms; see Juul’s ‘classic game model’, where the player is “emotionally attached to the outcome”, *Half-Real* 36). However this is achieved, there are different types of immersion, and video games are generally credited to achieve, at least in McMahan’s terms, a high degree of it, and especially so for games with fictional worlds.

Generally, immersion then means that the senses involved in the reception process are occupied with passively taking in impulses and busy with constructing and making sense of virtual worlds, regardless if they are presented visually or textually. This by common sense implies that the critical faculties of the brain have been disabled or at least been put to energy-saving mode, to use an analogy to computer technology. Ryan heavily criticizes this view (*Narrative as Virtual Reality*, 11ff), revisits the whole concept of immersion in a whole monograph and tries to rehabilitate immersion as a valid form of appreciating a text.

For video games, the immersion metaphor appears to run rampant, as they, due to their interactivity/ergodicity, let the player participate actively in a virtual world. So the argument is actually reversed here: immersion is seen as

positive and critical thinking as negative, and many designers of commercial games will try to remove everything that could possibly break immersion.⁸

I conceive differently of the immersion vs. critical thinking issue, as does Diane Carr, who thinks that the constantly shifting requirements on the part of the player actually also require constant shifting between being immersed and thinking critically, such as when the player is organizing inventories and developing new strategies (*Play and Pleasure* 53-55). Generally speaking, it does not matter which of both is the dominant mode of appreciating a text or a certain cultural artefact – it is just that both can be active at certain times. Being immersed in a work or game does not imply that critical thinking cannot be reactivated when a certain element of a work or game will require it. On the contrary, I think that even immersed readers will usually be able to switch between these modes rather quickly – it is just not the dominant mode of reception of some works. For video games, good games will in most cases manage to balance the two, to intersperse immersive parts with non-immersive parts that require the player to reflect, such as difficult puzzles. Especially some of the examples featured in the analytical part actually require a great deal of thinking on the part of the player, although the mode of reception is here clearly interpretation. Whatever may be the case, the debate over the alleged immersiveness or non-immersiveness of certain video game elements has already made it into the industry (see, for instance, Andrews and Wilson for two approaches to the perceived immersivity or non-immersivity of videogame interfaces).

3.1.2 Reference, Self-reference, Self-reflexivity and Metareference; some Metareferential Devices

There are transmedial approaches to self-reference and self-reflexivity in a variety of media (see Nöth, Bishara, and Neitzel, *Mediale Selbstreferenz*, and Nöth and Bishara, *Self-Reference in the Media*), but only the essays focusing explicitly on video games will be used, as an inclusion of the theoretical foundations of medial semiosis would probably lead too far in this thesis.

⁸ See Mäyrä and Ermi, *Analysing immersion*, for a quantitative approach; also see Douglas and Hargadon, *Pleasure Principle* and *Pleasures of Immersion* for more on immersion in video games using frame and schema theory; for more on the terms engagement, presence and flow, see McMahan, Frasca, *Rethinking* and Santaella, although she has a rather peculiar understanding of different stages of immersion; see also Murray, *From Game Story* for another discussion of immersion and agency.

Practically speaking, we are here only interested in instances of metareference, and both works do not offer that many new insights here.

There are several discussions of the concepts of 'metaization' and 'metareference'. Hauthal et al. have mainly elaborated on 'metaization' (see Hauthal et al., *Metaisierung*), and Wolf has added three increasingly extensive discussions of 'metaization' and 'metareference' (see Wolf, W., *Metaisierung* and Wolf, W., *Metareference* which are mainly concerned with typologies of metaphenomena, and Wolf, W., *Metareferential Turn*, which has central functions and the historical dimension as its focus). We will use Werner Wolf's most comprehensive approach as a starting point and give definitions for all phenomena involved (earlier definitions will not be mentioned, because they are largely the same).

First, we need to distinguish between heteroreference/reference and autoreference/self-reference. Heteroreferential signs are signs that refer to an external reality, that have a real referent (in Peircean semiotics). Self-referential signs are, therefore, signs that refer to themselves or parts or the whole of their own sign system (see Wolf, W., *Metaisierung* 31). Signs are, however, never fully referential or self-referential – they can, potentially, be both to various degrees (*Metaisierung* 32; *Metareference* 23). Werner Wolf offers the following definition:

In a broad semiotic sense, self-reference can be defined as a usually non-accidental quality of signs and sign configurations that in various ways refer to or point to (aspects of) themselves or to other signs and sign configurations within one and the same semiotic system or 'type' of which they are part or 'token' rather than to (an element of) reality outside the sign (system). (Wolf, W., *Metareference* 19)

Wolf distinguishes between intracompositional and extracompositional (here: work-internal and work-external self-reference) self-reference to denote that a sign in a given work can either refer to a part or the whole of its sign system, and that it can, by extension, refer to a part or the whole of its medium or all media (*Metaisierung* 32). We can further distinguish between unintentional or intentional self-reference without a message and intentional self-reference with a message, which would be self-reflexivity (*Metaisierung*, 33). A *self-reflexive* sign or sign complex has a communicative function, as it entails a message about the sign or sign system without, however, breaking the fictionality of the given text. When this fictionality or other elements of the medium become the target of such a self-reflexive discussion, we have an instance of metareference

(*Metaisierung* 34-35). On its own, neither a self-reflexive sign or sign complex nor a metareferential sign or sign complex can do anything – it requires the active and willing participation of a recipient in order to actualize and decode it (*Metaisierung* 34). Additionally, as in the case of referential vs. self-referential signs, also the dichotomy of referential vs. metareferential signs is a matter of degree, because metareferential works are, essentially, double-coded (Wolf, W., *Metareference* 24).

Metareference and metaization are transmedial, transgeneric, and interdisciplinary projects and concepts (Wolf, W., *Metareference* 3 and 13ff; Hauthal et al., *Metaisierung* 1). Wolf defines the term metaization as

[...] the movement from a first cognitive or communicative level to a higher one on which the first-level thoughts and utterances, and above all means and media used for such utterances, self-reflexively become objects of reflection and communication in their own right [...] (Wolf, W., *Metareference* 3).

Wolf defines the term 'medium' following Ryan's discussion of 'medium' (see Ryan, *Media and Narrative* 288-290) as follows:

[...] it [the medium, M.T.] is a conventionally and culturally distinct means of communication, specified not only by particular technical or institutional channels (or one channel) but primarily by the use of one or more semiotic systems in the public transmission of content that includes, but is not restricted to, referential 'messages'. (Wolf, W., *Metareference*, 13-14)

Some other transmedial phenomena include framing structures, descriptivity and narrativity (Wolf, W., *Metareference* 14).

Metareference can be approached from a communicative, cognitive and cultural-historical point of view, and everything that contributes to a given work should be taken into consideration (work, medium, author, recipient, context). The semiotic approach usually focuses on the work itself, but for metareference, one also has to include the communicational approach because the recipient is required to actualize the statement (*Metareference* 25).

Intentionality also plays a role here, because in order to determine whether or not a sign or sign complex is metareferential, it is required to have been placed intentionally by an author. Intentionality, however, is often hard to prove. The context also plays an important role here (historical, social, cultural, technological, etc.). The cognitive approach becomes important when talking of cognitive framing, or in the case of metareference, 'meta-awareness', as Wolf calls it (*Metareference* 26-27). It is defined as

[...] the at least passive or latent knowledge that a phenomenon is not 'reality' as such but something thought, felt or represented by someone else, in short that this is a phenomenon or a 'reality' processed through a medium. (Wolf, W., *Metareference* 27)

This is thus a secondary frame that draws additional attention to the recipient (*Metareference* 27). In communication, Wolf claims, this secondary frame can be very much present but can remain latent, which allows the recipients to immerse themselves into a medial work (*Metareference* 28, I have briefly discussed immersion earlier). When it is activated again, the recipient can reflect upon mediality consciously, and this is claimed to be the central purpose of metareference, to trigger metareflection. This can be weak or strong, and the central function (meta-awareness) does not rule out other functions (*Metareference*, 28-29). Another function is simply to entertain.

Taking these three approaches into consideration, Wolf modifies his definition of metareference and comes up with the following, inclusive definition:

It [metareference, M.T.] is a special, transmedial form of usually non-accidental self-reference produced by signs or sign configurations which are (felt to be) located on a logically higher level, a 'meta-level', within an artifact or performance; this self-reference, which can extend from this artifact to the entire system of the media, forms or implies a statement about an object-level, namely on (aspects of) the medium/system referred to. Where metareference is properly understood, an at least minimal corresponding 'meta-awareness' is elicited in the recipient, who thus becomes conscious of both the medial (or 'fictional' in the sense of artificial and, sometimes in addition, 'invented') status of the work under discussion and the fact that media-related phenomena are at issue, rather than (hetero-)references to the world outside the media. (Wolf, W., *Metareference* 31)

If these metaphenomena appear rather frequently in one work or a genre, one may speak of metaworks or metagenres (*Metareference* 31).

The field can be mapped on the macrolevel (different media) and on the microlevel (subforms of metareference) (*Metareference* 33-38). On the macrolevel, it seems to be most opportunate to map the field according to media, and on the microlevel, according to a combination of effect and recipient-centered criteria. Wolf distinguishes between: direct/indirect or intra/extracompositional metareference (scope of metareference), explicit/implicit metareference (semantic discernibility), fictio/fictum metareference (content), critical/non-critical metareference (frequent functions). Intracompositional metareference roughly means that the work only discusses itself from an internal perspective, while extracompositional metareference means that it broadly refers to other works in order to discuss itself. Explicit metareference refers to a 'quotable' reference, implicit metareference is

especially relevant for the visual media, because iconic signs can, by definition, not refer to anything and only be similar to the depicted objects. Fictio metareference means that a work discusses its medial basis, while fictum metareference means that a given work lays bare its fictionality or inventedness. Critical and non-critical metareference are a distinction between whether the reference takes a critical or non-critical stance towards the elements it discusses.

There are some individual devices that seem to carry some amount of metareferential potential by nature (*Metareference* 50ff). *Metalepses* (see Genette, 234ff and Ryan, *Avatars*, 205ff), for instance, are often claimed to always break illusion or immersion, and are claimed to always be metareferential. A metalepsis is

[...] a usually non-accidental and paradoxical transgression of the border between levels or (sub)worlds that are ontologically (in particular concerning the opposition reality vs. fiction) or logically differentiated (logically in a wide, not only formal sense, including, e.g. temporal or spatial differences). (Wolf, W., *Metareference* 50)

As Wolf guesses, “[...] the metareferential potential of this device obviously depends on what one incorporates under this term” (*Metareference* 51). The move between two ontologically different levels is the minimal condition for metalepsis. Based on a discussion by Ryan (see Ryan, *Avatars*, chpt. 9, 205ff), Wolf distinguishes three different types of metalepsis: rhetorical metalepsis (requires a narrator, transgression extra-/intradiegetic level), epistemological metalepsis (in media that can represent thoughts and speech, e.g. characters knowing more about what they are than they should), and ontological metalepsis, the most common form (physical transgression of boundaries by character or object). With the highest metareferential potential first, ontological metalepsis is followed by rhetorical and epistemological metalepsis. Generic conventions, specific genres and mixed works may influence the metareferential potential of metalepses. Metalepses are a case of implicit metareference with a high potential for becoming explicitly metareferential, especially if accompanied by explicit metareference (*Metareference* 53-55).

Next, Wolf discusses *mise en abyme* (*Metareference* 56ff). This is defined as

This device [mise en abyme, M. T.] designates a special relationship within an embedding structure, namely – with reference to the media – the ‘mirroring’ of parts or the totality of a framing or embedding higher level of a semiotic complex (text, work,

performance) in a discernible unit located on an embedded, lower level. (Wolf, W., *Metareference* 56)

Additionally, Wolf claims that

[i]n contrast to what the name of this concept may imply ('putting something into an abyss') mise en abyme is **not restricted to infinite recursion** [...], but can also refer to **discernible relationships of similarity, including identity (as an extreme case of similarity) and contrast (to the extent as contrast presupposes similarity)** between two different, vertically (hierarchically) 'stacked' levels. (Wolf, W., *Metareference* 56-57, emphases mine, M. T.)

Also mise en abyme is a transmedial and transgeneric phenomenon, and it is not restricted to narratives. It is an instance of intracompositional self-reference (*Metareference* 57).

Intertextual and intermedial references are further devices that show a high potential of metareferentiality (*Metareference* 60-61). Both are generally self-referential, because by referring to texts within the system of the media, the works they are contained in by extension also refer to themselves, and they are in essence extracompositional. Their metareferential potential may depend on frequency of occurrence, their combination with explicit metareference, and the salience of the secondary reference to other texts and media rather than the reference to an external reality. Parodies are important here. Parodies, relying on intertextual reference, are inherently metareferential, because parody implies the knowledge and use of aesthetic or thematic features of a given work in unusual ways. For a discussion of intermedial references, Wolf refers to Rajewsky (*Intermedialität*). A discussion of intermedial references with metareferential potential in video games cannot be tackled in the current thesis. For functions of metareference (*Metareference* 65ff), we can distinguish between work-centred (foregrounding frame art or medium), author-centred functions (authorial comments, celebration of the author, explanations), and recipient-centred functions (entertainment, immersion). Further observations about functions and the historical dimension of metareference are included in another publication (see Wolf, W., *Metareferential Turn*), but are not as relevant to the current thesis, which looks at metareference from a synchronic perspective.

3.2 Semiotics and Self-reference in Video Games

This section features discussions of self-reference, self-reflexivity and metareference in video games, and includes a short chapter on the semiosis of

play. Furthermore, these discussions of self-reference, self-reflexivity and metareference in video games include some useful examples and starting points for further analyses, and may offer us ideas about how to subdivide the field into smaller units. They also point out some important functions, some of which will be discussed in more detail because they add proof to the central argument of this thesis that metareference in video games is a way of contributing to community-building, building on an important observation made by Fotis Jannidis, which has only been supported by a few examples. We will greatly add to these examples and determine what metareference in video games is targeting, and will provide further input to Fotis Jannidis' argument.

3.2.1 Self-reference, Self-reflexivity and Metareference in Video Games: Extant Research

There are a variety of different approaches to self-reference in video games. However, all of them are not as comprehensive and/or useful for the present purpose as Rapp's insights. Santaella (*Epitome*) includes a great many different phenomena into her discussion of self-reference, but most of her insights are either not generalizable because they target some rather specific features that cannot be transferred to other games, or they mix up different levels and categories. In general, this approach is both too wide and too unspecific, and includes everything from the feedback loop to mods and loading screens.

Walther (*Formalistic approach*) only discusses the self-referentiality of the formal level using a variety of approaches, but adds self-reference on the medial level (basically, intermedial references and adaptations). He further gives a few examples from video games, such as metalepses, metacommunication, and one instance of what could be called 'epistemological metalepsis' in Ryan's terms (*Avatars* 205ff), but does not further elaborate on self-reflexivity or the metalevel.

Rapp's earlier contribution (*Selbstreferenz*) already outlines some of the aspects discussed in detail in his doctoral thesis, but contains different examples. This is a nice collection of examples and pieces of theory, but in general, the thesis is much more important, because it contains a framework of possible types and functions.

Britta Neitzel has extensively discussed metacommunication in video games (*Metacommunication* and chpt. 4 of *Selbstreferenz*), using theories of

play and narrative models to explain these relationships. In general, metacommunication is always latent in the feedback loop between the system and the player, and may become explicit due to metalepses. However, none of the examples chosen for this thesis includes metacommunication, which is most often encountered in the form of characters of the fictional world discussing aspects of the interface in video games. However, Nöth, Bishara and Neitzel's observation about the 'double address' that is characteristic for video games (player as player and character in the game) (147ff) will become important again. This double role is also mentioned by Newman (*Myth*).

Rapp's doctoral thesis (*Selbstreflexivität*) immediately points out a feature that is very common to video games, and is in fact also common in other applications, the 'Easter Egg' (*Selbstreflexivität* 9-12). In video games, Easter Eggs are, in most cases, spatially hidden or remote, that is, they are often situated in secret rooms or must be discovered by spatial exploration. This is exactly the type of hidden feature the paidia player can seek out. These can be objects, characters or geographic features that are always humorous, but not always self-reflexive (see Rapp, *Selbstreflexivität* 12) or metareferential. In general, the Easter Egg can be defined as a *spatially hidden or remote object, character or environmental feature that carries a humorous message and rewards the player with entertainment if discovered* (for another definition, see The Easter Egg Archive. "FAQ."⁹). In general, Rapp focuses on self-reflexivity, so instances where the game 'lays bare its device', although some of his examples would also qualify as metareferential. Rapp again mentions that video games are hybrid constructs, both as regards their play situations (*Selbstreflexivität* 20), and regarding their multimediality (*Selbstreflexivität* 36-37). The video game is systemically self-referential as regards its feedback loop (already mentioned by Walther and Santaella), and repetition is a central factor to consider when analysing video games (*Selbstreflexivität* 26-27). The hybrid nature of video games may be a source for a heightened potential for breaks to occur between all those different layers, and these breaks may be a preferred point of insertion for self-reflection. Rapp considers the activity of play and the structured play of games to be in a dialectic relationship, as conflicting tendencies (*Selbstreflexivität* 28-30). Rapp again notices that there is a large

⁹ <http://www.eeggs.com/faq.html>, last accessed 4 November 2012.

amount of incoherence in many games (*Selbstreflexivität* 34-36). Rapp understands the difference between self-reference and self-reflexivity in a similar way as Wolf, and distinguishes between systemic self-reference and aesthetic self-reference, where the former implies self-reference in Wolf's terms and the latter intentionally placed reflexivity (*Selbstreflexivität* 45ff).

Rapp develops some hypotheses (*Selbstreflexivität* 47ff): that self-reflexivity in video games requires the player to participate in its actualization, that it appears in foregrounded positions in the game, that it will be placed there intentionally, and that it discusses game-related matters. Most of these factors are identical to observations made by Wolf as regards metareference (see *Metareference*). Rapp states that these elements will be marked, that they will be meaningfully integrated into the games in question, that they will, as iconic signs, be similar to the same elements in film, that they can be found in instances where the continuity or coherence of the play process is important, and that immersion will be influenced, but not necessarily broken (*Selbstreflexivität* 47-51).

Rapp identifies ideal situations in which self-reflection can occur (*Selbstreflexivität* 111-139): spatial navigation and escalation, suspended player participation, change in game play, cul-de-sac constellations, and adds an umbrella category of exposed play situations. The second category is extension (*Selbstreflexivität* 142-146), where Rapp differentiates between punctual and permanent self-reflexivity (one time, x times) and adds structural self-reflexivity (games within games), and gives a classification scheme (*Selbstreflexivität* 156) where he draws these insights together and states why he preferred those two categories over the classic form/content distinction (which can, theoretically, become important again in games with fictional worlds).

Fotis Jannidis takes the study of the self-referentiality of video games a step further and applies the concept of metareference to games. His main assumption is that metareference will be realized and appear in a similar frequency as in other media, particularly film, and that it is highly appreciated by players, but that the functions will differ from those in other media (544). However, Jannidis chooses to only discuss examples of direct metareference, according to Wolf's terms (546). The author also includes a discussion of Easter

Eggs. Jannidis mentions that metaleptic elements function differently in video games, than, for instance, in a novel:

This is also a typical quality of most metaleptic elements in computer games: they appear only in the background, and in most cases the player need not concern himself with them; at times, he or she must even take up a particular position in the game in order to be able to perceive them at all. In games, metaleptic elements function in a way clearly different from that in a novel, where the linearity of the text always forces the reader into a specific perception. (Jannidis 549)

In fact, taking in mind Jannidis' discussion of Easter Eggs (546, see also my definition), he has here aptly described what Easter Eggs in games are, and not how metaleptic elements are hidden. Generally, the term Easter Egg only refers to things that are hidden or otherwise obscured in video games in particular, and in movies and other visual arts (maybe even music) in general. Easter Eggs have largely been inherited from other programmes, where they were hidden away in the code.¹⁰ If these Easter Eggs are also metareferential or are metalepses is a different matter, the only thing we can say for sure is that they most often utilize space to disguise or hide themselves. So that they are hidden is not a quality of metaleptic elements, although many Easter Eggs may be metaleptic. Jannidis is right when he claims that Easter Eggs and metaleptic Easter Eggs will usually require the player to do something specific, but it could well be the case that a broader study of metareferential phenomena in video games would probably yield that a small number of games even include metalepses in their 'frame narratives', as I have called them earlier, or in their main quests.

However, Jannidis makes another valid point by stating that, for actualising metareference, a number of video games not only require an expert knowledge of the game medium, but also require more or less expert technical knowledge or a wide understanding of technological developments and products (557), as I have pointed out earlier in the discussion of player types and possible types of player 'repertoire'. He gives an example of a reference in *Half-Life 2* (Valve Corp., 2004) that requires the player to know about technological developments that took place way before the game was published, and that require not only this specific knowledge, but a playful attitude and interest in working out such riddles that require technical knowledge (557). This aspect has also been dealt with in the section on player

¹⁰ For an overview, see, for instance, *Wikipedia: the free encyclopedia*. "Easter Egg". http://en.wikipedia.org/wiki/Easter_egg_%28media%29, last accessed 4 November 2012.

types. There will be some players that will also have a background in computer culture, and will therefore have the technical skills needed to deconstruct the game at the level of its software constituents in order to uncover Easter Eggs hidden in the program files.

Jannidis includes many examples into his approach to metareference in video games, some of which will be featuring in my own analytical part, because I have a differing interpretation to offer for at least one of his examples (see section 4.2.2.3). Another example, about which Jannidis rightly states that it is not metareferential at all, belongs to a special group of devices and will be included in the analytical part as well (see section 4.2.1.1).

The following section will briefly outline the semiosis of play, although it is only of limited relevance to the thesis.

3.2.2 The Semiosis of Play

Although an interesting topic in its own right, the semiosis of play, strictly speaking, does not contribute to the present thesis, because objects and environmental aspects carrying metareference will be located solely on the level of the fictional world, and are therefore static. While all of the examples require play before they are discovered and can be interpreted, some will also require additional manipulation to activate the possibility for interpretation. However, generally speaking, if the play process that leads to their discovery and possible activation is done, interpretation has the last word in the decoding of the reference(s), although some of the components required to decode those references will have been gathered by the player through playing video games.

Using input from Russian formalism, David Myers (see *Anti-poetic*) has shown that the semiosis of play contradicts the formalists' observations that art has as its primary purpose *defamiliarization* (*остранение*), which means that its purpose is to make the reception process difficult to allow the recipient to view familiarized or *automatized* patterns in a new way, providing him or her with a different view on familiar patterns. In play, Myers claims that the opposite is the case, because the player will have to internalise specific patterns by repetition until they become second nature (see also Poole 170 for habituation regarding controls and 'muscle memory'). Thus, he describes the semiosis of play as *anti-poetic*. Myers re-examines the notion of interactivity and points out that

That is, the characteristic pattern of new media interactivity entails a specific formal relationship among signs: a temporal sequence of significations during which successive signs are used to construct a context within which subsequent signs are interpreted, valued, and giving meaning. Thus, interactivity is a process of *recursive contextualization*. (Myers, *Anti-poetic*)

This is similar to what Markku Eskelinen and Ragnhild Tronstad (*Configurative practices*) have pointed out with regard to his concept of video games as configurative practices, using Aarseth's configurative user function (see Aarseth, *Cybertext*). What Eskelinen and Tronstad attempted to show was that interpretative media such as literature and film usually require the recipient to configure (i.e., play around with what he has seen, reconsidering everything) in order to interpret, and that this is reversed in video games which require the recipient to interpret (the context, the rules, etc.) in order to configure, to make use of means of input to manipulate the game, to perform meaningful actions. So, Myer's notion of *recursive contextualization* as regards the semiotics of play in terms of the possible means of manipulation in a video game is actually quite similar to Eskelinen and Tronstad's observations that we have to interpret in order to configure in all video games.

Myers mentions Ryan's approaches (see, for instance, *Narrative as Virtual Reality*) to digital media which draw on possible worlds theory, when he says that

[...] similarly, the literary-inspired analysis of Ryan emphasizes the use of narrative patterns and processes within interactive digital media to generate a variety of 'possible worlds.' The question remains, however, whether the semiotic process necessary to generate potentials and possibilities is not antithetic to the semiotic process necessary to read and interpret narrative. (Myers, *Anti-poetic*).

This is exactly the point here. Both Myers and Eskelinen/Tronstad isolate the process of play, but in structured play as in video games, semiosis also takes place on the level of the fictional world, and on this level, interpretation can dominate over configuration. Mäyrä, for instance, takes this into consideration when he distinguishes between *semiosis* (interpretation) and *ludosis* (the semiosis of play) (see Mäyrä, *Introduction* 19). Similarly, David Jones has re-examined the semiotics of video games, and has come to the conclusion that many players will not move beyond the level of rules, even in games with fictional worlds (Eskelinen and Tronstad's approach to the play process), but that some will move beyond the formal layer that requires them to progress in a rule-based system and will include the fictional layer. Players can only interact with the system, but they may also interpret (see Jones, 9ff). For the present

purpose, this observation is important, as it describes that players can decode self-referential objects and constituents of a fictional world by including contextual knowledge, which requires interpretation on the fictional layer. A similar semiotic discussion of video games is offered by Steven Poole (1997ff), also using Peircean semiotics, who draws attention to both modes of interacting with a video game, but Poole does not distinguish between different layers and equally looks at semiosis in play and the semiotics of the interface and fictional world constituents.

To sum this up, video games require their players to primarily interpret in order to configure, but they may also require them to configure in order to interpret, to use Eskelinen and Tronstad's terms (*Configurative practices*). Video games require automatization on the level of play, but may also have methods of defamiliarizing the player on the fictional layer. Metareference will occur on the fictional layer, but could possibly point back to the rules and actions that enable play as well. Video games unite these 'antithetic' (to echo Myers) semiotic processes in one medial product.

4 Metareference and Video Games

Before the analytical part, it is useful to first state how one can search for and find possibly metareferential signs in video games. The analytical part with examples from the RPG and 3D Shooter genres will then be subdivided according to different criteria. Based on the insights gained from video game analyses, a short summary will relate this data to the earlier discussions of repertoire, the community of designers and players, and one of the central functions of metareference in video games.

4.1 Where can we expect Metareference to occur?

Rapp (*Selbstreflexivität*) and Jannidis have already made valid observations when directing their attention towards 'Easter Eggs', which are related to Marie-Laure Ryan's (*Avatars* 1997ff) observation that video games can accommodate different types of play while still remaining firmly seated in Caillois' ludus paradigm. Easter Eggs usually require a considerable amount of experimenting with the game, exploring the landscape, and generally keeping one's eyes open and taking a peek into every nook and cranny of the fictional world for

discovering them. An explorative style of play is often a good way to begin looking for them, and for the subsequent analysis, exactly such a type of player (exploring and experimenting, but within the bounds of the game – no alteration of game rules, cheating, or hacking) will be suggested as the ‘ideal player’. While I am thoroughly aware of the problems of such an approach, it is exactly the case that a specific style of play is often required to find instances of medial self-reference in video games in general and metareference in particular. Although not all examples of self-reference or metareference are tied to Easter Eggs, and some can actually be meaningfully integrated into quests, spatial structures and/or the ‘frame narrative’ of a given video game, it is exactly the case that game designers like to reward the explorative type of player who enjoys their games to the fullest with Easter Eggs, and some of these actually have self-referential or metareferential potential. In order to decode them, these players will often be required to have a large ‘repertoire’ in terms of medial (video game as system and world) and generic knowledge of video games, and in some cases medial and generic knowledge that goes beyond the video game and extends to intermedial dimensions. A brief look at the ‘Video Game Easter Eggs’ section of the Easter Egg Archive (see The Easter Egg Archive. “Video Game Easter Eggs.”¹¹) shows that it is probably hard to find video games that do not contain at least some Easter Eggs, and a closer look at different games will show that many of these are actually non-critical intermedial references. My analysis will also show that, for the 3D RPGs and 3D Shooters analysed here, only a minority of Easter Eggs are actually metareferential, and that only a minority of Easter Eggs are critical – mostly, they are non-critical. However, what will also surface is that some video game objects with metareferential properties are not Easter Eggs at all, or at least borderline cases. Here, the question of intentionality surfaces again, but I will discuss it briefly for the borderline cases. In general, it could be said that all Easter Eggs that do not require cheating or fiddling with the rules (although such an approach can certainly make finding them easier) are intentional, unless they are remnants of digital code (see Bailey) that were not intended to be discovered by normal means.

¹¹ <http://www.eeggs.com/tree/563.html>, last accessed 4 November 2012.

To draw everything together one more time: video games consist of a formal layer of rules that determines the behaviour of all game constituents and which is by definition self-referential together with an audiovisual layer that is a combination of a represented environment complete with objects and characters. This fictional layer constructs its own space and time, but these may not necessarily be coherent. This layer has form and content, and is similar to film. Furthermore, many video games are either structured spatially, or they are structured by quests or subsequent goals that can frame the experience of the game in a similar fashion to narrative discourse in other media.

Regarding devices that have metareferential potential, we can distinguish between metalepses (jumps between ontological layers), *mise en abyme* (mirroring, cases of marked similarity), intertextual and intermedial references, where intertextual references are by definition self-referential, and intermedial references by definition metareferential. Metareference will require a communicational basis, which can, in video games, only be achieved on the fictional layer. All instances of metareference in a video game can either be metareferential as to the formal layer or to the fictional layer, because a sign will be integrated into the sign complex of the fictional world, but will also be determined by game rules. Metareference will, as we will see, mostly be a case of fictio metareference – it will target the mediation of the video game. Fictum metareference, regarding the fictionality of the video game, is also common, but it will mostly appear in the same form. Intracompositional metareference is, in many cases, a case of implicit metareference, while extracompositional metareference is both more common and often made explicit. Most cases of metareference will be non-critical, although some can be critical.

As the video game cannot hide its mediation very well, because it requires input from the player, a split between player/avatar is always present (as Nöth, Bishara and Neitzel have discussed, 147ff). Therefore, metacommunication is always implicit, but may be thematized explicitly. Many games will have a potential for becoming metatextual, thematizing some of their constituents. Metanarration seems to be, as of yet, impossible, because narration is, to a large extent, carried out by the player and therefore dynamic (see Nöth, Bishara and Neitzel). Narrative structures, however, are certainly present, but they mainly structure gameplay on the macrolevel by providing

clear goals with narrative potential. Rapp (*Selbstreflexivität*) has pointed out that many instances of self-reflexivity appear in positions where the coherence of the experience is important. This also applies to some instances of metareference, but in general, metareference can occur both in exposed and unexposed positions, as some examples will show.

4.2 Case Studies

The following subdivision of examples is not a coherent typology of metareference in video games. Taking the multimodality of video games and the many different layers involved in mind, it seems to be practically impossible to develop such a coherent typology. Therefore, for the present purpose, both Rapp's classification scheme (situation and extension) and possible methods of subdividing the field offered by Werner Wolf (according to devices, according to types and functions) will be dropped. The examples will, on the first layer, be subdivided into 'Easter Eggs' and 'Non-Easter Eggs' to correspond to the earlier, admittedly artificial distinction between 'paidia' and 'ludus' players. Then, they will be subdivided further according to what the player has to use from his or her 'repertoire', so generic knowledge, medial knowledge, by which I understand medial knowledge about the video game and other media, and cultural knowledge, which means knowledge about discussions surrounding specific video games. The devices, layers, and functions involved in the examples can vary widely, while the repertoire required is in many cases rather straightforward.

4.2.1 Easter Eggs

Here, only phenomena that can be classified as 'Easter Eggs', according to my earlier definition, will be mentioned. If they are viewed as Easter Eggs is actually a matter of degree: most often, something is only considered an Easter Egg if it is hidden in such a way that it requires a considerable amount of effort for the player to discover it. Some of the elements mentioned here do not expect the player to make such an effort, they are merely placed 'off the track', spatially remote from the route the player would have to take to make progress. Generally speaking, this is enough for the present analysis, because the player will have to change to the paidia mode and explore the surroundings.

4.2.1.1 Metagames: Generic and Medial Knowledge

This section will discuss video games within other video games that are usually called ‘minigames’ in general video game parlance (Aarseth, Smedstad and Sunnanå call them ‘intragames’). This can involve anything from simple clickable artefacts that do something, but do not require significant effort on the part of the player, to full games being included in other games. The metareferential potential of games within games structures has already been mentioned on some occasions in passing (see, for instance, Juul, *Half-Real*, 116f and Juul, *Easy to use* for Nintendo’s *Wario Ware* games (Nintendo, 2003-2009), which are basically a number of unrelated minigames, which Juul calls an “ironic meta-game”; see Rapp, *Selbstreflexivität*, 134ff on changing gameplay in different games; Jannidis 550ff; Newman, *Videogames* 74 for some other ‘metagames’). Regarding the central device, these are obviously instances of mise en abyme on the formal layer, but, as will be shown, other devices can also be involved.

Here, I find Rapp’s categories (*Selbstreflexivität*, 111-141) very useful. ‘Metagames’ would therefore, in terms of Rapp’s categories of situation and extension, collapse ‘change in gameplay’ and ‘structural self-reflexivity’. However, my examples will show that game-within-game structures are not per se self-reflexive and that many are additionally not metareferential, which depends, broadly speaking, on how they are integrated into the fictional world and if and how they are related to the current goals of the game, depending on where they are encountered. Such structures have become extremely common in recent video games, and some are actually very much part of the fictional world because they are smaller games that model specific actions, which can also be related to the main goals of the game.

Metareferential metagames can be defined as *manipulable video game constituents that are framed as ‘games’ themselves and that only reveal their metareferential potential when activated*. In general, a thorough approach to the analysis of these metagames would have to take all possible contextual factors into consideration. A metagame that is hard to find or spatially remote and does not model anything that makes sense regarding the story (scripted succession of events) or a quest is likely to become metareferential, if other explicit or implicit markers in the embedding game and its fictional world are present.

Another factor is the possible intertextual dimension: if an embedded game is discovered, the question is whether it is a 'fictional' game (one that never existed as a product), or whether it is or refers to an extant game. A fictional game that has no connections whatsoever to other, existing video games in terms of audio, visuals and rules, will probably have a rather low potential for becoming metareferential.

Rapp (*Selbstreflexivität*) and Jannidis (550ff) have already mentioned *Day of the Tentacle* (LucasArts, 1993) and its predecessor, *Maniac Mansion* (Lucasfilm Games, 1987), as prototypical examples, because the former embeds the latter into its fictional world, making it a playable object that basically relates the story before the former game. The embedding game is therefore metaleptic because it embeds another game that should, as regards its fictional layer, actually be set at the same level. This would be a case of implicit, intracompositional, non-critical metareference.

An example of a fictional (in terms of never available on the market) metagame that, however, refers to a number of extant games, can be found in *Doom 3* (id software, 2004), a first-person shooter (FPS) from the creators of the *Doom* series. It is located relatively early in the game, when the player has just arrived at the Mars base and has not yet fired a single shot. First off, it can be considered an Easter Egg, because it is spatially set off from the story. At the given point, the player is required to visit his superior as quickly as possible. Finding it requires a moderate amount of straying from the given path, not following orders, and exploring the environment. There are a number of factors that draw attention to the object. The object announces its presence by sound, it plays music reminiscent of the music of 8bit games (from the eighties). If one turns toward the music that is radically different from the surrounding ambient sounds, one finds this.



Fig. 1 – *Super Turbo Turkey Puncher 3, Doom 3* (id software, 2004)

The arcade cabinet by itself is nothing special, as it has a real-world equivalent that very much belongs to video game history – one could only ask oneself what it does on a high-tech Mars base in a game that is set in the future. Examining the visuals, one can, if the ‘repertoire’ reaches back far enough, identify numerous references to other games. The text below the buttons is an indexical reference to Capcom, a Japanese developer known for a series of different beat ‘em ups and for the *Resident Evil* series. The text on the upper side of the cabinet is, if seen as text, an indexical sign referring, most likely, to an indeterminate part of the *Street Fighter* series, such as *Super Street Fighter 2* (Capcom, 1994). If viewed as iconic sign, the design of the letters is similar to the logos of the *Street Fighter Alpha* series. As of now, we have nothing more than two pointers to Capcom games and a third resembling the title of a specific series of Capcom games, but as of yet, there is no discussion of the medium or the fictional status of the game.

Yet, if the player goes on and tries to manipulate the object, he or she will discover that it actually has a purpose. The title on the upper side of the cabinet is, quite literally, the programme, as one is able to punch turkeys. Gathering further clues from the player repertoire, all of the graphics of the embedded game are taken from the immediate predecessors in the *Doom* series (id

software, 1993 and 1994) from the nineties, except for the turkey. What we have now are two broad references to past games of two series, with one from a different developer and one from the developers of this game. One can definitely say that the discovery of this artefact will have required a paidia player. After a few activations of the object, the paidia player will find out that the turkey can actually be punched multiple times, will die, and be replaced by another one. Other than being rather unengaging both visually and in terms of gameplay (one press, one punch, turkey dies and is replaced by another after five punches, ad infinitum), the paidia player may notice that there is actually a high score that increases according to the number of turkeys punched. Again drawing on the repertoire, the player may be familiar with the convention of receiving something (like an extra life) after a set high score has been reached, and will continue to do so. After roughly five minutes, and specifically with a high score of 25000 points, the player receives the following message to the avatar's PDA.



Fig. 2 – A new high score, *Doom 3* (id software, 2004)

The avatar's vacation time has been docked two days because he has wasted time with punching turkeys. While it is still firmly rooted in the fictional world of this game and makes sense, because the avatar has really wasted time and defied the orders given by his superiors, it was actually us who had the avatar

play this rather unimaginative and boring game. Thus, the dormant metacommunicational potential (see Neitzel, *Metacommunication*) that is inherent in video games comes into play, because it is both us and the avatar that are being addressed by this message, although the content of the message does not refer to the player explicitly.

What happened here is actually an instance of the designers having predicted this behaviour, placed this object 'off the track' and lured the player into playing it by both making it draw attention to itself (sound, graphics) and equipping it with cryptic messages that activate the repertoire of the player. The diligent paidia player may then go on to see what it does in order to get additional clues and arrive at something with more substance, and is scolded for playing this boring game when he should actually have steered his avatar forward in a considerably more advanced and engaging video game. This is clearly a case of playing both with the inherent avatar/player split and playing with the expectations of a certain type of player, and in fact, we could say that the designers are playing with their players via a game within a game here. In terms of Rapp's categories, this would turn his 'suspension of player activity' inside out, as the game has first lured the player into manipulating an object until it does something only to tell him or her to get back to work. It artificially creates a break in gameplay only to reinstate continuity by scolding the player. In terms of metareference, this is a mixed case, consisting of implicit, non-critical, intertextual references that are not yet metareferential because no discussion of the present game is yet taking place, and a peculiar case of an implicit, intracompositional, metaludic and metacommunicational embedded metagame that is critical as to the player. This could probably be called the game equivalent of rhetorical metalepsis or authorial comment, because it is only a single case and in fact tells the player to reimmerge him or herself after it has attempted to deimmerse the player by luring him or her into playing this game. The sole purpose of the intertextual references seems to be luring the player into trying out this unusual object until it produces some result. While players could possibly be put off by this trick that the designers played on them here, it may well be the case that the paidia player, with a generally playful attitude towards the game world, may actually be amused by this, laugh at it, and get back to ludus play. It is hard to say whether players will experience this

as immersion-enhancing or immersion-breaking, but what seems to be obvious is that the function is a combination of player and author-centred ones and not, as the many game titles united in this fictional metagame suggest, a work-centred one.¹² Another function could be the inherent, work-centred function of self-historicisation that is, technically, very common in video games, especially among games of the same genre and games from the same developers. What surfaces here, however, is that the general implicitness of iconic signs that Wolf has mentioned on numerous occasions may further be complicated in the case of video games, because the video game can already refer to its different layers and because the distinction between author, work and player is not as straightforward as it is in other media, simply because there is, in many cases, no instance between author and work and in all cases only an uneasy distinction between avatar and player. In general, attempts to introduce 'implied authors' and 'implied players' (such as in Carr, *Games and Narrative* and Nöth, Bishara and Neitzel) do neither sound convincing, nor do they offer a solution to this conflation of ontologically unstable levels, and maybe this is only one factor that makes video games so appealing.

Something different are mini-games that serve the purpose of making the game more accessible or easier, such as the hacking minigame mentioned by Jannidis (550) involved in *Bioshock* (2k Boston, 2007) or the Lockpicking minigames in *Fallout 3* and *Fallout: New Vegas* (Bethesda, 2008, 2010) and *Oblivion* and *Skyrim* (Bethesda, 2007 and 2011).¹³ They may be self-reflexive in Rapp's terms, who would include them under 'changing gameplay', but they have no metareferential qualities at all, because they are meaningfully integrated into the embedding games: they simply model a certain action as an extra game. While they are visually excluded from the fictional world because

¹² There may also be another explanation to this. User Slava Ozonov wrote an Easter Egg FAQ for *Doom 3* that is mirrored on multiple sites, and claims, based on a rather obscure source, that this may be a reference to *Spear of Destiny* (prequel to *Wolfenstein 3D*, another id game) having been delayed by extended periods of playing SNK's *Fatal Fury* and Capcom's *Street Fighter 2 Turbo*. This would shift the function to an author-centred one. The original source, however, cannot be determined, and therefore I excluded this from my discussion, focusing on an intracompositional explanation. (see JonnSmithy, "Doom 3: Easter Eggs Guide." *GameFAQs*. <http://www.gamefaqs.com/pc/469881-doom-3/faqs/32187>, last access 4 November 2012)

¹³ There are numerous other examples for such minigames. *Dead Space 2* (Visceral Games, 2011) includes a similar hacking minigame, and *Little Big Planet 2* (Media Molecule, 2011) features a whole range of minigames based on genre conventions of other types of games (e.g. horizontally and vertically scrolling shooters).

they are framed differently, establish their own game space and introduce a type of gameplay that is not required in the embedding game, they have a purpose in it. Generally speaking, they are an extended instance of what Miguel Sicart has called ‘secondary mechanics’ (see Sicart), they make progress in the embedding game easier, but require a specific context – in this case, hackable machines or objects with pickable locks. They have a logical connection to the fictional world.

Duke Nukem Forever (Gearbox, 2011) has a number of similar games, such as playing Flipper, manning an anti-aircraft gun, and throwing a frisbee. Some of them, again, make progress in the embedding game easier, because they boost Duke’s ‘Ego’, which is his life bar. These also have different rules, and are, in Sicart’s terms, ‘secondary mechanics’. Some of them, such as a Pinball machine, are self-referential because they are games, they mirror the embedding layer, but generally, all of them have no metareferential potential.

To sum up, games within games do not automatically have to be metareferential, and whether they are depends very much on a combination of rules and representation. If such games within games are meaningfully integrated into the fictional world both as to their rules and their representation, it is likely that they will neither lay bare their medial basis, nor their fictional basis. The combination of iconic implicitness and the different, ontologically unstable layers of video games may make it hard to identify the purpose of a metagame at all, unless it is explicitly marked as metareferential.

4.2.1.2 Discussing the Fictional World of a Series: Generic and Cultural Knowledge

The example featured here can also be classified as an Easter Egg, because it requires a moderate amount of exploration and luck to discover it. However, in this case, the Easter Egg is not an object, but a character that is featured in three games of a whole series. In part three of the series, it is static, but spatially remote from the rest of the world. In parts four and five, it is constantly on the move, and can be especially hard to find in part five.

This example comes from Bethesda’s *The Elder Scrolls* series, which up to now includes five parts. Part 3, *Morrowind* (Bethesda, 2002), first introduced a character named M’aiq the Liar, who was seated in a relatively remote part of the fictional world and can therefore be considered an Easter Egg, spatially

hidden away and waiting to be discovered. Again, a paidia player is required, and more specifically an explorer. In this part, his role was that of a teller of tall tales, as his name implies. Most of the information he gave was a collection of blatant lies, with only one quip carrying a certain amount of truth.¹⁴

However, M'aiq only began to unfold his metareferential potential after his inclusion in parts four and five of the series, *Oblivion* (Bethesda, 2007), and *Skyrim* (Bethesda, 2012). Here, M'aiq was again spatially set off from the frame narrative and all other quests, and he was not required in order to make progress in the game at all. In *Oblivion*, he began to move around, but still followed a certain route (see The Elder Scrolls Wiki, "M'aiq the Liar"), while his route became random in *Skyrim*.



Fig. 3 – M'aiq the Liar, *Oblivion* (Bethesda, 2007)

Essentially, M'aiq's dialogue is presented both in audio and as text. He is simply a fictional character moving around in a diegetic world, and he follows the dialogue conventions of the game – he is a Khajiit (cat people), and Khajiit refer to themselves using third person pronouns. In *Oblivion*, M'aiq began to tell short

¹⁴ For a full list of his lines of dialogue in all three games, consult The Elder Scrolls Wiki. "M'aiq the Liar." http://elderscrolls.wikia.com/wiki/M%27aiq_the_Liar, last accessed 4 November 2012. This is probably the most complete collection of everything related to the Elder Scrolls series. I will only give some examples here, discussing every line given in parts four and five would definitely go beyond the scope of this discussion.

quips that may seem similar to the tall tales and stories he told in *Morrowind*, but that are in fact related to the video game as artefact. If the player repertoire regarding this game series is activated, it becomes obvious that M'aiq is actually explaining what has changed in comparison to the predecessor, what is new, and what has been left out altogether.

There are numerous lines, such as "Werewolves? Where? Wolves? Men that are wolves? Many wolves. Everywhere. Many men. That is enough for M'aiq" (see The Elder Scrolls Wiki, "M'aiq the Liar"). An add-on to *Morrowind*, *Bloodmoon* (Bethesda, 2003), took the player to a new island to explore, and there it was possible to become a werewolf. Fact is that *Oblivion* features vampires and allows the player to become one, but that there are no werewolves at all. Using an intracompositional and world-internal perspective, this line of dialogue does not refer to anything at all, M'aiq only explains that there are no werewolves, but that there are many wolves and men. This only begins to make sense when the intertextual dimension is explored. The player must be familiar with the content of the predecessor game and its add-ons to reflect upon what has been said from a meta-level. The previous game, together with the add-on, had werewolves, while this one does not. Again, this is an instance of implicit, extracompositional, non-critical metareference, although it has a work-centred function here. An author-centred function could also be implied, because M'aiq essentially becomes an extension of the designers who explain that something is missing from the previous game to those who have played an earlier part of the series.

The following quote is more interesting, because it is a discussion that is surrounding the whole industry and many players who have voiced concern over making games with fictional worlds more 'realistic' by also including children: "M'aiq believes the children are our future. But he doesn't want them ruining all of our fun" (see The Elder Scrolls Wiki, "M'aiq the Liar"). The industry voiced concern over the option to include children as characters in combat-heavy games for fear of them being killed. Bethesda opted to not include any, so while Cyrodiil is full of different people of different races and gender, there is not a single child to be found in it. Bethesda only introduced children in *Fallout 3* (Bethesda, 2008), and included them in *Skyrim*, but made them immortal in both games in case they were attacked. In itself, M'aiq's utterance does not really

make any sense, because there are simply no children in *Oblivion*. Only if contextual factors are taken into consideration, this essentially becomes an implicit, extracompositional, non-critical case of metareference. In terms of device, it would be a case of epistemological metalepsis (because M'aiq obviously knows more than he should), and in this case, it is relevant to this game in particular, but by extension to similar games with fictional worlds, because many designers have been reluctant to include children in their fictional worlds.

4.2.1.3 Including the Community: Game-related and Cultural Knowledge

These are two examples of cases where the fictional level is left intact, but where the fiction is implicitly undermined because some of its constituents are exchanged with others that actually have the same behaviour, but differ considerably in their appearance – they simply do not fit in. Essentially, they are parodies of themselves because the iconic form of some constituents is exchanged to hilarious effect. Both of them belong to the subgenre of the 'dungeon crawler' that was mentioned earlier, both employ an isometric perspective, and in both, 'item farming', alone or with co-players, is emphasized over story, and character progression. A secondary emphasis is on character progression and levelling, as in most RPGs.

Both examples are, broadly speaking, located within an Easter Egg. Furthermore, their metareferential potential can only be uncovered if knowledge gained from 'metaculture', as Egenfeldt-Nielsen, Heide Smith and Pajares Tosca termed it, is taken into consideration, much as M'aiq in the examples from the *Elder Scrolls* series relies on such knowledge on the part of the player for his utterances to make any sense.

One such example that moved beyond only one game and become a mutating running joke of a whole series is the famous 'Cow level' of the *Diablo* series (Blizzard North and Blizzard Entertainment, 1996-2012).¹⁵ Regardless

¹⁵ See The Diablo Wiki. "Secret Cow Level." http://www.diablowiki.net/Secret_Cow_Level. 16 October 2012. Last accessed 4 November 2012. Like most information that can be gathered via search engines, the Wiki only states that "[people, M.T.] played years of jokes about a secret level that could (supposedly) be reached in Diablo [...]" (Diablo Wiki. "Secret Cow Level", first paragraph). There does not seem to be any reliable information about this notion out there, and I can only confirm that the rumour spread quickly near the end of the nineties. This had to do with a single, homeless cow that was standing around in a field near the town of Tristram in *Diablo* (Blizzard North, 1996), and was clickable, but where clicking on it had no effect. In analogy to the possibility of blowing up sheep in *Warcraft 2* (Blizzard

how the rumours concerning a 'Secret Cow Level' came to be, Blizzard decided to actually include such a cow level finally in *Diablo 2* (Blizzard North, 2001). Basically, it can be considered an Easter Egg, as the player needs a special object and then has to combine it with another, commonly available object, to open the portal to the level (see Diablo Wiki, "Secret Cow Level"). The basic game premises (click and destroy, collect items) remain intact, but instead of the normal enemies, the level is literally populated by cows, or in this case 'Hell Bovines', including their 'King', in large numbers that try to swarm and kill the player.



Fig. 4 – The Moo Moo Farm and its inhabitants, *Diablo 2: LoD* (Blizzard, 2001)

Apart from the fact that the individual player without any knowledge of the Easter Egg may not have a clue that this exists at all (one may wonder what 'Wirt's Leg', the object required to open the portal, does and search for answers, but if one does not, the way to come here is practically undiscoverable), it does not really make sense on its own other than meaning that there is a level that is, inexplicably, populated by cows with halberds

Entertainment, 1996), a real-time strategy game from the same developers, by clicking on them repeatedly, people quickly spread rumours about the lone cow in *Diablo* having a similar purpose. Thus, this would belong to the rumours category adding to the play experience as it was mentioned by Juul (*Half-Real*, 138-139).

instead of the normal demons, monsters, and other hellspawn at Diablo's service. If the rumours spread surrounding the first *Diablo* part are included, however, this makes perfect sense – apart from it being a humorous Easter Egg from a work-internal perspective (basically, metatextual, because some of the constituents of the game are ridiculed by itself, but leave the rest of the game intact), it is very much the type of “witty communication between designer and player” that Jannidis has mentioned (546). By itself, this would be a case of intracompositional, implicit (no additional marking), non-critical, fictum metareference (because the fictional layer is undermined by killer cows). If the discussions surrounding the predecessor are taken into consideration, it becomes extracompositional, implicit, non-critical fictum metareference. Why this is mentioned will become obvious in the next example.

Diablo 3 (Blizzard, 2012) has only been released this year, and surrounding its release were, as could be guessed, heated discussions over whether the cow level would again feature prominently in the game. Another discussion targeted the graphics of the game, as *Diablo 3* uses a much brighter colour palette and can in many ways be said to be modeled after *World of Warcraft* (Blizzard, 2005), both in terms of ease of access (more accessible control scheme, easier to learn) and in visual terms, because it was made by a different development team than that of *Diablo* and *Diablo 2* (see Diablo Wiki, “Secret Cow Level”, subsection “A Secret Cow Level in *Diablo 3*?”).

Taking the *Diablo 2* cow level as our starting point, and seeing it as an Easter Egg, we can say that the cow level has become a major point of interest for players and developers alike. When *Diablo 3* was released in May 2012, players indeed immediately began searching for their beloved cow level, and as details about some objects with no apparent use that could be collected in the game began to surface one by one, they quickly discovered a new Easter Egg that also required the collection and assembly of some special objects. The result was the following.



Fig. 5 – Whimsyshire, the “level of sparkling happiness and rainbows”, *Diablo 3* (Blizzard, 2012)

Again, the game requires its players to collect a number of seemingly unrelated objects, again, they need to be combined, and again, a portal has to be opened to the hidden level. As the entrance is guarded by the ghost of the cow king (granting entrance to the hidden level, but laconically stating that “There is no cow level!”), and Whimsyshire features brightly coloured, almost psychedelic elements on all levels (even the minimap, upper right corner, is changed to some sort of children’s drawing on a piece of paper) (see Diablo Wiki, “Secret Cow Level”, image at the bottom), this is actually a reaction to both discussions and by extension intertextually points to *Diablo 2*. Instead of the *Diablo 2* cows, what one gets is a combination of pink and purple unicorns, pink care-bears and mobile flowers in an environment complete with smiling clouds, gigantic mushrooms, pots o’ gold and piñatas. In essence, the inhabitants of Whimsyshire still want to kill us, and behave just like all other enemies in the game: only the form and graphics of the setting are changed, complete with its inhabitants.



Fig. 6 – Ghost of the Cow King, *Diablo 3* (Blizzard 2012)

Again, this Easter Egg is already metareferential when we view it from an intracompositional perspective, because it flaunts its own fictionality. However, if the discussions about the graphics and the discussions about the cow level are taken into consideration, this becomes an instance of extracompositional, implicit, critical fictum metareference, and it apparently states that both the cow level (ghost of the cow king) and the setting of the predecessor are dead for good. In Järvinen's terms (*Gran Stylissimo*), the graphical style has moved from illusionism (*Diablo 2*) to caricaturism. Broadly speaking, this is metareferential hyperbole as a reaction to dedicated *Diablo 2* fans lamenting that the new game would be different from its predecessor. It has both a player-centred and a work-centred function: it is there to entertain, but it also discusses its relationship to its predecessor regarding game content. These two examples are important, because they show that an Easter Egg, which is always some sort of 'inside joke' that is often shared by the community, can actually move between different iterations in a game series, can be transported by different development teams, and can be interpreted by both players and designers rather differently. Furthermore, including the factor of game culture, it shows that attitudes can change on the designer and on the player side, but that both will have a word in what a completed game will look like.

4.2.1.4 Mentioning the Authors: Game-related Knowledge

Additionally, *Diablo 3* includes an example of the classic metaleptic inclusion of the names of the designers, as has been done in the first Easter Egg ever as it is mentioned by Jannidis (546-547) and many other scholars, although it is done more elaborately here. *Diablo 3* includes a hidden area that can only be found through trial and error named 'Developer Hell', making this yet another Easter Egg. For both Easter Eggs in the game, the player will gain an achievement. It features a range of monsters carrying the names of the game designers, with the biggest and baddest monster in the dungeon carrying the name of the lead designer. This metaleptic and metareferential inclusion of the authors is quite common, and today, it is mostly done by including the names or group photos of the designers in the background, on walls, tables, or other items. Here, the names are included in the interface or on an extradiegetic level. In *S.T.A.L.K.E.R. – Shadow of Chernobyl* (GSC Gameworld, 2007), numerous photographs of the development team can be found in the irradiated surroundings of Chernobyl NPP, and in *F.E.A.R. 2 – Project Origin* (Monolith, 2009), the name of the company is included in drawings in the environment, and the first names of some of the designers are included in game objects that have a purely decorative purpose. All of them can be found in one specific location, in a kindergarten.¹⁶ These, of course, have an author-centred function, but can also be fun to discover for the player, increasing immersion in the search for Easter Eggs and providing entertainment.

¹⁶ I have collected a range of such examples as screenshots, as they are really very common in most modern video games. However, I decided to not include them all here, as my collection of examples would quickly let the document grow to an unmanageable file size. Instead, I opted to only include some of the most recent examples – the original 'easter egg' in *Adventure* (Atari, 1979) can be looked up everywhere on the web.



Fig. 7 – Development Hell, *Diablo 3* (Blizzard, 2012)

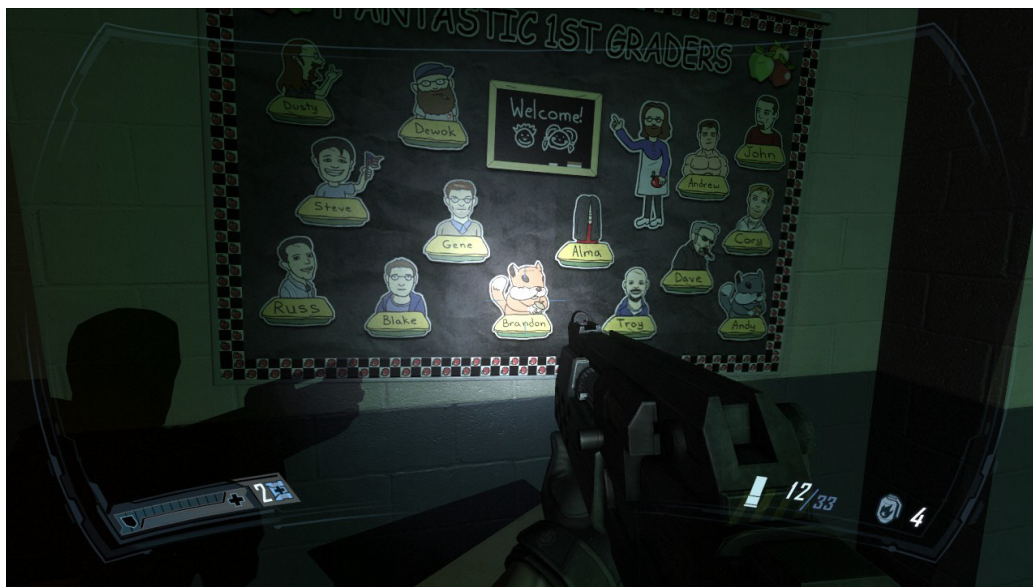


Fig. 8 – Developers in *F.E.A.R. 2* (Monolith, 2009)

4.2.1.5 Making Fun of the Genre: Generic Knowledge

There is another example from *F.E.A.R. 2* (Monolith, 2009) which is also integrated into the fictional world as an object. The game is practically littered with objects that are there solely for the reality effect – posters, magazines, books, and many objects that are part of the environment. They cannot be picked up and have no purpose, they are solely there to enhance the game's alleged realism. One of these magazines is particularly interesting, because it

targets one of the many genre conventions of 3D Shooters in general and the First Person Shooters in particular. It can be found numerous times throughout the game, but one actually has to look closely to identify the metareferential message implied in its title. Again, it can be considered a moderate Easter Egg that will appeal to paidia players, because a straightforward ludic gameplay will probably overlook the many self-referential objects and drawings in the environment. The player will, again, have to activate the 'repertoire' for the 3D shooter genre in order to decode the metareferential object.



Fig. 9 – Crate Enthusiasm in F.E.A.R. 2 (Monolith, 2009)

The reason this magazine is metareferential is because it has long been a genre convention of first-person shooters to cramp their fictional worlds or game spaces with sometimes more, sometimes less arbitrarily placed crates and containers of all kinds to establish a certain reality effect. In many shooters, the crates contained items, in others, they only provided cover. This game tries to get rid of the crates by using elements native to the environments (beds in the hospital, desks and chairs in the school, etc.) in order to provide cover for the player. While mimicking the visual style of print journals and magazines, no one would probably buy an enthusiast magazine about crates, so the answer to this has to be sought outside the game.

The title of the enthusiast magazine is therefore an instance of implicit, extracompositional, critical metareference that is both aimed at the fictional level and the rule level (because these crates were almost always nothing more than an extreme amount of copies) of other games belonging to the same genre, and especially older games from the same genre. Here, metareference, therefore, targets a whole group of different games, and has both a player-centred function, who may be amused by this (partly self-ironical) magazine, and it has a work-centred function as to other games from this genre.

Fallout 3 (Bethesda, 2008) includes a similar case, although it is much more implicit and probably hard to decode. As no additional clues are provided, one can only guess if the metareference is intended or not. In one of the many ‘vaults’ of the game, which is actually easy to find because all vaults are marked as locations on the map at a certain point into the game, but which is not relevant to any quest goal, the player meets a group of characters that immediately strike us by their extreme resemblance. This is a devastated vault, and using additional information, it turns out that this vault was an experiment in cloning.



Fig. 10 – Gary!, *Fallout 3* (Bethesda 2008, German EU Version)

Unfortunately, it was impossible to get a group photo of living Garies, because they immediately attack the player upon the first encounter. All feature different

numbers in their names, which seems to be something akin to a serial number. All of them can only utter their name in different variations, depending on whether it is formulated as an exclamation (attack), a question (the player making noise) or a statement. There are about two dozens of them, and as the vault is conspicuously empty (no computers, no files or additional information except one recording of a scientist that does not deliver too much further information other than that they are clones and aggressive), we can only guess that the clones killed their creators. However, what their resemblance and their rhetorical handicap may point to are conventions we have already encountered earlier with the examples from the *Fable II* loading screens. It is still extremely common, even in modern, expansive, RPGs with fictional worlds to have the vast amount of enemies and 'stage characters' utter only a few lines of dialogue, share the same voices, and in many cases share the same models. This game is no different, although it tries to vary at least the appearance and voices of human enemies and stage characters a little. If this is a case of metareference based on extreme resemblance, and if this vault and particularly its inhabitants target genre conventions, we here have a case of implicit, intra and by extension extracompositional, implicit, critical metareference with a primarily work-centred and player-centred function. If this observation is right, the game here flaunts its own conventions and its fictionality, more specifically things which it considers to be unable to create a lasting reality-effect, which could well be the case if the general tongue-in-cheek humour of the *Fallout* series is considered. As there are, regrettably, no explicit pointers to this observation, one can only guess. Again, the repertoire of the player needs to be activated to come to even this conclusion. We will now move on to examples from other games that are not Easter Eggs, but are also metareferential.

4.2.2 Non-Easter Eggs

Here, cases of metareference that cannot be called Easter Eggs will be discussed. This has the purpose of both showing that metareference and Easter Eggs are not coexistent, and the purpose of discussing examples that could maybe also be realised in other visual media. The examples given here will show some similarities to devices used in other media, and some of these games will have parody as a dominant mode and will therefore have a generally high potential for metareference to occur, because, as mentioned by Wolf

(*Metareference*), parody already implies metareference because generic conventions are their target.

4.2.2.1 Discussing the Game: Game-related and Generic Knowledge

Peter Molyneux's *Fable* series is famous for its inclusion of tongue-in-cheek humour and for not taking itself as seriously as some other members of the RPG genre do. All parts of the series are, at least as regards the salience of metareference, problematic, because they are characterized by a generally large amount of tongue-in-cheek humour and parody of genre conventions. However, this section will particularly focus on messages displayed on the loading screens between individual spatial parts of the game (*Fable II*, Lionhead, 2008). Loading screens, mentioned earlier, are one major point of spatial and temporal incoherence encountered in practically all video games. Many modern games, especially open-world RPGs such as the *Elder Scrolls* series previously mentioned, try to at least create the illusion of temporal continuity by loading individual segments of the outside world 'on the fly', and while they manage to do this to a large extent, they still have to resort to loading screens when a spatial transition between discrete parts (world to house, for example) is taking place. Again, this is mainly related to the technologically determined layer of the game, as such a transition between inside and outside or different areas also marks a transition between distinct modules of the game, the game has to unload the outside world and load the interior of a house, for example. *Skyrim*, for instance, chose to display more or less important information about its fictional world, places the player has not yet visited, or important gameplay information (explaining the controls, or some tricks) on its loading screens to at least keep the player cognitively engaged when gameplay has been suspended. Rapp (*Selbstreflexivität*) has predicted that self-reflexivity can take place during such breaks, and this is quite literally the case for metareference here. *Fable II* also displays game-related information on its loading screens, but it also uses them to discuss its fictional world from an extra-diegetic layer, using input from allegedly intra-diegetic sources. As with the example from the *Elder Scrolls* series, there are numerous such instances, but I have opted to select a few examples that I find particularly entertaining.

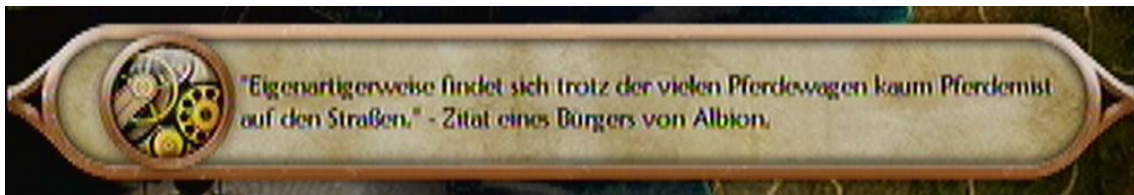


Fig. 11 – Missing horse dung in *Fable II* (Lionhead, 2008, German EU version)

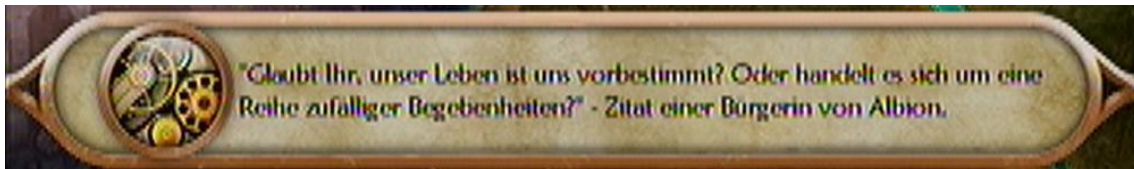


Fig. 12 – Determinism vs. Contingency, *Fable II* (Lionhead, 2008, German EU version)

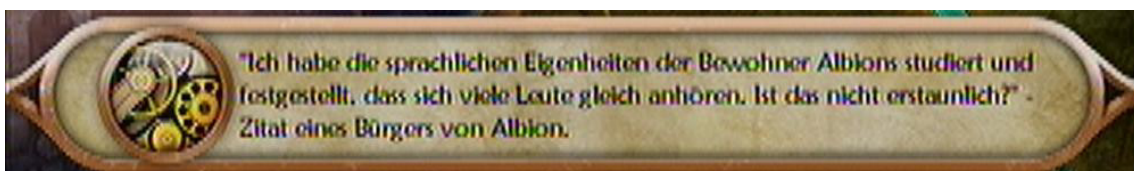


Fig. 13 – Linguistic paradoxes in *Fable II* (Lionhead, 2008, German EU version)

Regrettably, versions of *Fable II* on the XB360 released in German-speaking countries do not allow the player to change the game language, so the German text had to be used. I will briefly offer translations of these¹⁷:

- 1) "Strangely, in spite of the many carriages, there's almost no horse dung on the streets." – Quote of a male citizen of Albion
- 2) "Do you think that our life is predetermined? Or is it just a line of contingent events?" – Quote of a female citizen of Albion
- 3) "I have studied the linguistic characteristics of the inhabitants of Albion, and I have found out that many people sound the same. Isn't that astonishing?" – Quote of a male citizen of Albion

Obviously, all of these textual musings are statements about the fictional world of the game. There really is no horse dung, despite the many carriages pulled by horses, the inhabitants of Albion may have the same endless discussions about the meaning of life and its contingency, and many different people really

¹⁷ Additionally, I could not find screenshots or reliable transcriptions of these particular messages from the English versions, so I have to make do with a translation of my own that may not correspond to the original English versions.

have the same voices. What the good citizens of Albion seem to be noticing here are cases of incoherences or cases of extreme similarity in their world.

Again, the player repertoire must be activated here. These inconsistencies or similarities the people of Albion are wondering about are all related to abstraction in the video game. There is no horse dung simply because it is not required and would probably go too far in establishing the 'reality effect'. A large part of the life of the people is quite literally predetermined (especially of the 'stage characters', as they were called by Egenfeldt-Nielsen, Heide Smith and Pajares Tosca), because they appear to be wandering around in a quite autonomous fashion, but everything they do is scripted. Many people sound the same and speak the same lines simply because only a comparatively small number of voice recordings are randomly distributed to all 'stage characters' in Albion. Additionally, although this is not stated in any of these quotations, most of the 'stage characters' in Albion are quite literally copies of each other. The comic effect and self-irony inherent in these quotations can only be noticed if the player has a certain amount of knowledge about this game in particular and the conventions of vast video game worlds in general. In terms of metareference, the game is here discussed from an extradiegetic layer (basically, part of the interface) using quotations from the inhabitants of Albion. Although the game uses fake quotations from intradiegetic characters (if this were uttered by characters in the game, it would become an implicit case of epistemological metalepsis), it is quite clear that metareference takes place on an ontologically different layer here and that it targets the content of the fictional world. In fact, the game here discusses its own reality effect, aiming both at the fictional level and, by extension, at the ecology of its scripted behaviour, at the formal layer. It does so implicitly, intracompositionally, and critically. This would be an instance of implicit fictum metareference.

4.2.2.2 *Mirroring the World and Artefact: Game-related Knowledge*

Here, I would briefly like to draw attention to an example that has, beyond an analysis of self- or metareference, probably a range of implications. However, I shall focus on its peculiar position in the game, its tendency to become a very broad discussion of the video game as medium, its designers, and its players, and especially its implications, although it only covers a relatively short part of

the whole game it is embedded in. It is a prominent example of implicit metareference, and at this point, we are beginning to move towards the realms of experimental literature or film. Here, the video game plays with the factor of illusion and immersion and the reality-effect and its dangers in general, but can implicitly issue a potentially large number of metareferential messages.

Fallout 3 is generally very rich in intertextual and intermedial references (Bethesda, 2008). The game does tend to not take itself too seriously and has already received much input from its turn-based predecessors (Interplay, 1997 and Black Isle, 1998) in this respect, but there is a point of particular interest in the game. Outlining the whole succession of events of the frame narrative would probably lead too far, but a quick introduction of the setting will be necessary. *Fallout* is a game set in the United States approximately 200 years into the future after a nuclear war between the US and China has taken place, leaving the world in shambles. Some people have been taken to so-called 'vaults', autonomous and self-sufficient underground bunkers, and survived the war, dwelling there for a few hundred years. Many of them believe that the outside world is still devastated and does not allow life, others have ventured outside to find it still devastated, but populated by many people and dangerous animals trying to survive, with some searching for the technology of yore that is buried beneath all the rubble and debris, the wasteland. In *Fallout 3*, the story proceeds from the assumption that the fifties of the twentieth century featured rapid technological progress, while the lifestyle and culture largely remained the same as back then. A hundred years later, the rare left-overs from before the war are reminiscent of the visual style of the 1950s, but feature a peculiar mixture of 'the old' and high technology (such as 50s Chevrolet cars with anti-gravity engines, power by a nuclear reactor). Here, we have to take our young avatar outside to find our father and a mysterious device known as G.E.C.K., which is supposedly capable of creating life out of thin air, which the father, a scientist, wants to use to purify the contaminated water of the Washington D.C. wasteland. Essentially, our father gets lost in an old vault on his quest to find the G.E.C.K., and we are required to investigate and rescue him if possible.

Upon arrival, we are greeted by a still intact robot, who leads us to a chamber with a large computer in the middle and alcoves arranged around it. As the father cannot be found, we must enter one of the empty alcoves and see

what is going on here. When our avatar takes a seat in one of the alcoves, the shutter closes and lowers a monitor before his or her eyes, and we are transported into a VR environment. This environment is not only visually different from the fictional world, it is also hermetically closed off, with houses arranged in a star pattern around a roundabout. In the style of most films of the fifties, it is cast in the typical sepia that has, extending our antennae to intermedial dimensions, been used with a purpose in mind in the film *Pleasantville* (Gary Ross, 1998), which may be one influence. It makes sense that the environment is depicted this way if we remember that the war took place in a world that was very much similar to the fifties of our world, and that people have probably been in there very long (as is later confirmed). From a different source, we get to know that, additional to each vault serving as a bunker and home to many people, each vault was also an experiment. Some vaults were experimental environments that made their inhabitants the object of study, some were populated by scientists working on genetic experiments such as creating the 'supersoldier' or cloning. This one was, basically, an experiment in whether people could live in virtual environments for an extended time. The connection video game – virtual reality already becomes obvious from the outset, as both present us with a virtual environment, although video games focus on play and VR on creating a believable, detailed environment that appeals to as many senses as possible to create total immersion. Generally speaking, however, the experimental virtual environment is integrated meaningfully into the diegetic world, and its connections to the main quest (leave vault, search for father, help in his experiment) ensure that it is not perceived as alien to the game experience. However, if more factors are considered, the metareferential potential is quite high because it is, in essence, a structure en abyme that we are dealing with here.



Fig. 14 – Tranquility Lane, *Fallout 3* (Bethesda, 2008)

Firstly, our avatar can move around freely, talk to the people in the simulation, and always has a dialogue option of telling them that this is only a simulation, and that they should wake up. Most do not believe him. Some tell him to go talk to Betty and play with her. It is discovered that Betty is the doctor who actually developed the simulation and was or is still in charge of running it, and that he is actually a petty despot playing with his subjects, because he is the only one who can alter the simulation as he pleases and basically let everyone's alter egos die in whichever way he pleases, resurrect them, erase their memories, and go on with the whole procedure ad infinitum. He orders us to do many despicable things (including some virtual murders) if we ever want to see our father again. Here, the player has two options: follow orders, receive a lot of bad karma (the 'moral' currency of *Fallout 3*), entertain the doctor, release the father and leave with him. And here it gets interesting: if the player tries to find a more creative approach to avoiding all these negative actions, he or she may find out that he can actually end the whole cycle and leave without ever receiving a single point of bad karma, ironically, also by means of a computer. So if we take this VR environment to mirror the game itself, the option of multiple approaches

to problems that is so important to the game is retained, but one actually has to discover it by playing 'subversively' as to the objectives originally required.

By itself, this is, at least in this game, nothing equipped with metareferential qualities, as the game rules always allow multiple approaches to a problem, with some leaning more heavily to the negative side, and some leaning to the positive one, and rarely being neutral. However, if the simulation in its entirety is considered, it can by extension refer to the whole medium, especially if we remember that this is not virtual reality in the traditional sense, with VR goggles and all that, but is mainly achieved by a monitor lowered to the player avatar. Generally speaking, this is an *en abyme* structure with only one level, where the actions in the simulation mirror those possible in the real world, as it is always possible to simply kill people or let them leave and look for alternative solutions. Furthermore, the simulation has an author or designer instance with, so it seems, all the power (the doctor), a player in the embedded virtual world the doctor does not have control over (the avatar/player), and a closed off world with inhabitants (the NPCs the doctor has full control over, and can actually resurrect and kill as he pleases). Telling the inhabitants that this is only a simulation, they will not believe the avatar/player, but the doctor initially plays innocent and only tells the player reluctantly who he is. A logfile in the hidden computer required to end the simulation tells of multiple different virtual worlds that were experimented with already. It further tells us that the doctor originally wanted to release his subjects and replace them with AI characters, but then decided to keep the real people caught in there. He wrote that he would not have had that much fun with AIs, because they would not have acted 'naturally'. This has so many implications on so many levels that it would probably merit a separate discussion, but the paradox is obvious: the player, who is immersed in a virtual world, has his avatar enter a VR environment and tell its inhabitants that they are only part of a very elaborate game with a rather malignant, evil mastermind controlling their very fates. Although this is only critical metareference as to the reality projected in the VR environment, it can by extension also refer to the fictional world of the whole game. The *en abyme* structure of this mirroring makes it so statements delivered on the lower level seem to slowly move to the upper level, and includes all elements from the artifact itself to the author and the player in its self-conscious criticism. In terms

of Wolf's subdivision of metareference, this is a form of implicit metareference by means of an *en abyme* structure, with explicit marking (this is only a game!), where we may have problems establishing whether it is critical or not because the fictio and fictum metareference (it is made, it is fictional) of the embedded layer are not extended to the embedding layer – after all is over, it is never mentioned again in the 'reality' of the fictional world. There are many other such instances of implicit metareference, visual and content-related references to films and novels that are rather obvious, but can never be traced back to their origins because metareference remains implicit. Most of them are, therefore, intertextual and intermedial references that make the game a collage of a variety of influences, but the 'reality-effect' of the game is never explicitly undermined by them, if there even is one. There are not many cases of direct metareference, most take their input from other media.

4.2.2.3 The Rules and the Fictional World: Game-related and Generic Knowledge

In a section about implicit cases of metareference, Jannidis discusses the inscription "Max Pane. Bullet Proof Glass" that can be found during a specific mission in *Grand Theft Auto: San Andreas* (Rockstar North, 2004), and claims that

[t]he appearance of the name of a firm producing bulletproof glass can, therefore, on the one hand, be understood as a case of ironical hetero-reference; on the other hand, it implies a certain level of self-irony and –reference with respect to genre identity and similarities in the modes of presentation. (Jannidis 555)

Yet, what is conspicuously missing from this description is another, more likely implication of this message that requires us to take the rules of the game into consideration, and more specifically rules that govern the behaviour of the environment: it does not only refer to genre identity, it refers to gameplay. In many video games with fictional worlds, it has become a common trope that architecture, including windows and glass, are indestructible if the individual elements are just there for decoration, or if they are just textures on other architectural elements. Consequently, this means that glass, if it is not designed to be breakable to generate a certain reality effect, will actually be bulletproof, and will often not even react to explosives (see Newman, *Videogames* 110). In fact, this could also be understood as a reference to all games with three-dimensional worlds, because it does not only apply to shooters, but also to

other games featuring objects that are breakable in reality. *Max Payne 2* (Remedy, 2003) and *Grand Theft Auto: San Andreas* (Rockstar North, 2004) were both published by Rockstar Games, and it can be gathered that even though *Max Payne 2* had a different development team, Rockstar had a heavy share in the development process. The reference to *Max Payne* takes place during a mission where the player is required to shoot the owner of a gas station through one of the windows, but the owner has recently bought bulletproof glass for the windows and has locked himself in. So the player receives the alternative objective of finding a tanker and blowing the whole gas station up. Effectively, the introduction of bullet proof glass causes the player to make a longer detour for an objective that would normally have been completed in a matter of seconds.¹⁸ This can now be interpreted in two ways, while the latter would need further confirmation: the first way would be to say that “Max Payne. Bullet Proof Glass” indexically points to the first or second part of *Max Payne*, more likely the latter – a simple intertextual reference. The part ‘bullet proof glass’ is, however, already metareferential, because it references the fact that most glass windows in *Max Payne 2* are indeed bullet proof.

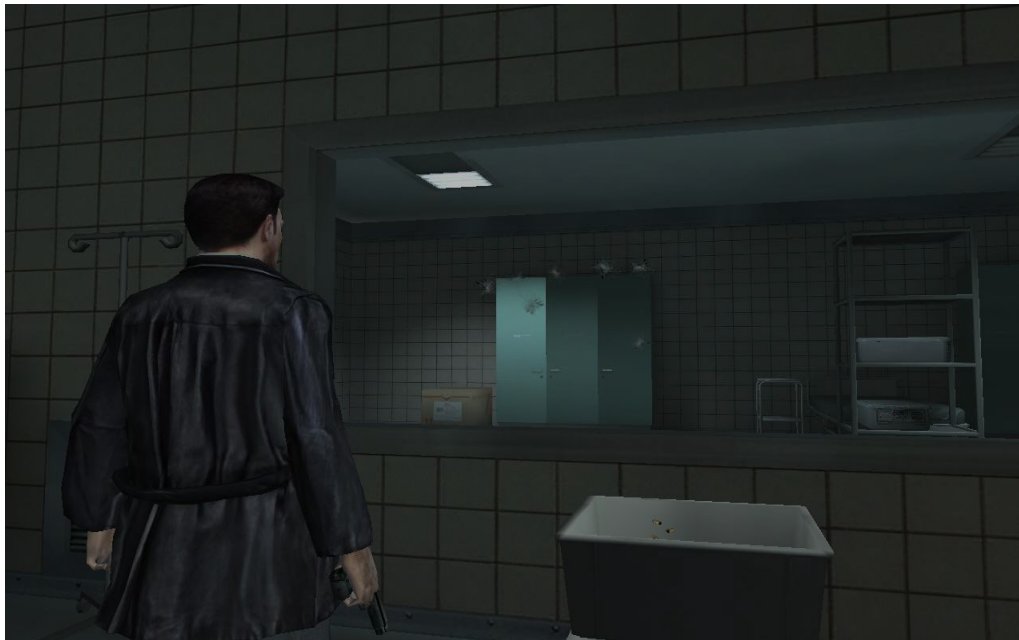


Fig. 15 – Bullet proof glass in *Max Payne 2* (Remedy, 2003)

However, this is largely a result of environmental rules, and has got nothing to do with representation. What is the case here is that glass, in many (not all)

¹⁸ See The Easter Eggs Archive, <http://www.eeggs.com/images/items/145.full.jpg> for a screenshot of the reference (last accessed 4 November 2012).

cases, has simply not been made destructible because the physics engine could (my guess) not have handled the calculation of hundreds of pieces of glass back in 2003. There are many other objects and parts of the environment that have become destructible in more recent games, but are not in this game (however, some glass shower cabinets can actually be destroyed). So, the easy interpretation would be that *San Andreas* here references the fact that glass is often bullet proof in both games. The other interpretation would be an ironical comment about the fact that both *Max Payne* games and *San Andreas* have inconsistent rules as regards the breaking of glass¹⁹: in some cases, the bullet proof glass in both *Max Payne* games is used to provide cover for the player during heavy shootouts, in others, it is used to protect characters and villains that are important for the story of the game, so it is used to prevent the player or the enemies from killing them (the question here is whether *San Andreas* can have breakable and unbreakable glass as well depending on the situation – I have not had the chance to confirm this myself). Fact is that both *Max Payne* games have inconsistent rules as to objects made of glass to prevent the player from leaving the scripted track (the ‘narrative frame’). Furthermore, the ‘bullet proof glass’ part seems to have become some sort of inside joke among the developers, because the recent *Max Payne 3* (Rockstar Vancouver, 2012) has also received a DLC featuring new multiplayer maps of which one is advertised as featuring bullet proof glass (see Rockstar homepage).²⁰ Nevertheless, the metareference here aims at knowing some of the potential weaknesses of the *Max Payne* games, so the statement is self-ironical as to medium knowledge related primarily to the rules of the games. It is ironic because it is a medium convention of many video game 3D worlds – in reality, glass has the property of breaking when shot inscribed, and has to be made bulletproof. In 3D worlds, it is by definition solid and has to be made breakable (if it is part of the environment, which is by definition solid). So, this is an instance of the medium discussing itself, with the side-effect of referring to a predecessor. In terms of metareference, we have a (slightly cryptic) explicit intertextual reference which

¹⁹ See an entry for the *Max Payne* walkthrough where the bullet proof glass provides cover at the 3D Realms Website, <http://www.3drealms.com/max/walkthrough/p3c8.html>. Last accessed 4 November 2012.

²⁰ The ad can be found at the Rockstar Games Website under the following URL: <http://www.rockstargames.com/newswire/article/36261/preview-the-3-new-multiplayer-maps-of-the-max-payne-3-local-just.html>, map “55th battalion HQ”, last accessed 4 November 2012.

indexically points to a predecessor from the same genre here, combined with an implicit reference to a specific game convention. In this case, the second part of the sign complex is complicated by the fact that we are not solely dealing with an iconic representation of 'window', but that this window is also a part of a video game environment and therefore has specific properties. The first is extracompositional and more or less explicit, while the latter is intracompositional (notice the difference quality between the two that leads us to the properties of game glass!) and implicit. Both are non-critical, but as the decoding of the 'bullet proof glass' part requires the knowledge that both are part of the environment (if we move away from the superficial, visual layer), they become critical and therefore self-ironic. Regardless if one moves to the layer of rules and compares both games or takes this as a comment about genre conventions, the statement is self-ironic either way.

Having discussed a variety of examples, we can move on to a conclusion for the analytical part.

4.3 Central Functions – Where is the Community in all of this?

In general, we have seen that video games are firmly enmeshed in the larger medial ecology, and that the designers seem to take at least as much inspiration from other narrative, predominantly non-critical genres (such as the action and sci-fi film) as they expect their target group to do. If video games develop a certain amount of self-criticism, this criticism is often aimed at predecessors, rival products, or the limitations of the video game. Essentially, most intermedial references that can be guessed, but in many cases not proven, seem to be included into the games based on similarity of content. Thus, a game such as *Fallout 3*, set in a post-apocalyptic world and ridiculing the same technological determinism that makes it possible, will draw many inspirations from contemporary pop-cultural artefacts that feature similar content, regardless of whether this content characterizes a whole film or novel or whether it is only part of a single scene or chapter. In general, there is nothing of the self-criticism that has already become a characteristic feature of many pop-cultural series or films, such as *The Simpsons*, and that may turn into the experimentalism in form and with aesthetic concepts that is, for instance, a trademark of many postmodern novels or films.

Yet, while the devices to transport metareference (intertextual and intermedial references, *mise en abyme*, *metalepses*) can also appear in video games in manifold ways, are largely similar to how they are used in other media, their sole purpose in video games seems to be to reward the knowledge of players of 'genre games' and align this knowledge with the media knowledge of the people who produced these games. As we have seen, it is also the case that, at least in the two genres studied, instances of metareference seem to have a predilection towards always appearing in different products of a relatively small group of developers who have been working in the industry for decades. Blizzard (formerly Silicon Synapse), id software (Doom, Quake, and recently Rage), 3D Realms (largely known for the Duke Nukem series, but they also produced many other games in the early years of PC games), Rockstar, and Lionhead Studios (formerly Bullfrog) feature a developer staff that, to a large extent, consists of people who have been in the industry for quite some time now. They have grown together with their players, and assume that their players will stay true to their products. Easter Eggs and metareferential self-reference seem to be common ways of both rewarding the player for playing these products extensively and they are, in video games, a form of 'inside joke' that only people who accompanied these games for years will, in many cases, be able to understand. Some also require knowledge from computer culture in order to understand these references.

In general, we can say that in these two genres, metareference does not aim at undermining aesthetic illusion, but that it may in fact be used to considerably strengthen it because it is a further attraction for a select group of lovers of these genres. There may be more of the experimental type of metareference in other genres, but in these two genres, both the form of visual presentation and the gameplay is obviously beginning to stagnate and become hermetic, only changing things on the level of content and exchanging material between the genres. Experiment is less important than the detail and immersivity of the worlds, although single cases (such as the combination of graphic novel, film noir elements and different types of often contradictory narration in *Max Payne 2*) may very well be viewed as exceptions to the rule. Here, video games do not contribute much to what Werner Wolf has called the 'metareferential turn' (Wolf, W., *Metareferential turn*) but may, on the contrary,

be moving into the opposite direction, toward finding their own form of ‘realism’ and reserving the few instances of metareference to a select few.

5 Conclusion and Prospects for further Research

One interesting point that has already been hinted at by Steven Poole in 2000 (so even before Game Studies began to gain momentum as a new discipline) has recently caught my attention, and after analysing some Japanese games, but then excluding them again from my analysis simply because I am not an expert in Japanese culture, it has become apparent to me that there may well be a point to this notion.

Some say life’s the thing... [chapter subheading, M. T.] ... but I prefer playing videogames. Time to dive once again into the bleep-ridden throngs of Makuhari, because it’s not just in terms of character design that the Japanese industry is instructive. We can also learn from the esoteric flora and fauna of its videogame biosphere that never make it to the West. Talking about them one night after the show in a local sushi bar, Japanese student Gavin Rees offers this observation: **“The Japanese do not make the distinction between ‘form’ and ‘content’ that we do in the West.”** [Emphasis mine, M. T.] (Poole, *Trigger Happy* 153)

Poole then describes this notion in more detail on the following two pages, but what surfaces in the highlighted statement is something that cannot be easily dismissed and may well have an influence on western theoretical conceptions of fictionality, reality, and the semiotics of fictional artefacts. In all discussions of the fictionality or non-fictionality, narrativity or non-narrativity of video games, I have never seen this mentioned, and some researchers have not tired to also use Japanese games to prove the usefulness of their eminently Western theories that were based on some common conceptions of what is fictional and what is not. Similarly, Eskelinen, although in a defense of the ludological approach and rejection of the narratological approach, points out that

[t]here’s no guarantee that the aesthetic traditions of the West are relevant to Game Studies in general and computer game studies in particular. (Eskelinen, *Towards* 38)

As already mentioned, one should be very careful in the application of US and European aesthetic theories to Japanese games, especially if they are dealing with issues of fictionality and illusionism. Furthermore, the choice of examples is important here, as I have already mentioned. Especially those Japanese games chosen for discussions of metaphenomena in video games are, in many cases, exceptions among the broader group of all Japanese video games. While I do not claim that a Japanese player cannot enjoy and decode US or European

games and vice versa, and while Japanese video games have certainly shaped our understanding of video games and their properties tremendously, the question is if the input into theory gained from these examples is not full of misconceptions if it is generalised. As I am not a specialist of Japanese culture and Japanese thinking, and neither do I even speak the language, I do not feel comfortable discussing metareference if the theoretical framework is applied to artefacts that do not hail from the US or Europe. It would probably be interesting to take a look at such theories together with Japanese researchers or specialists in Japanese culture and do a comparative analysis in order to uncover if the application of US and European theories to Japanese video games is thoroughly unproblematic, or if there are differences that require a modification of existing theories, especially regarding video games. The experimentalism that was characteristic of many video games has, at least in the US and Europe, yielded to the realist standard to a large extent, but the question remains if this is also the case for Japanese video games, and if metareference is, in the majority of cases, as hidden and cryptic as it has become in many US and European video games.

This could also be relevant to the, as of yet, relatively small number of Russian, Ukrainian and Polish games (if one excludes video games that were developed in the former Soviet Union and in Communist Poland here and only includes recent entries). For instance, the *S.T.A.L.K.E.R.* series transports something that is still widely remembered even in the West as one of the great tragedies of the twentieth century, the Černobyl' incident. But the incident is also a piece of cultural memory that has left its inscription in the minds of many generations of Soviet and Ukrainian or Russian people, and will also make itself felt distinctly in any of the three games of the series. I could give further examples of such cultural specifics that are prominently featuring in Russian and/or Ukrainian video games, such as the popular *Metro* series revolving around Dmitrij Gluchovskij's series of post-apocalyptic science-fiction novels, which has spawned one video game as of now (*Metro 2033*, 4A Games, 2010), but this would lead too far. Fact is that culture seems to be largely neglected in most game analyses, and that there is certainly a need for comparative analyses that carefully address such possible cultural specifics if the application

and modification of existing theory is to make any sense, especially as far as aesthetic concepts are concerned.

Another problem are the theory wars that still surround the serious study of video games. Theory is abundant, wide and far, but what is apparently largely absent are useful methodologies for analysing games and, to an even greater extent, comparative analyses of different games and game genres using the same methodological or theoretical framework to tickle out some differences that one genre may have in comparison to another. The reason why so much has been claimed for video games and so little has actually been proven is that researchers seem to be reluctant to take a stance that admits that their results can only speak for a limited number of video games and may say absolutely nothing about a different type of video game, because it has a wholly different focus and may model completely different factors in more detail. This has largely been lamented, but except for a relatively small number of analyses of single games, almost nothing has been done to counter this trend. The cause for this may be that theory is very useful in defending a still relatively young discipline such as Game Studies, which is barely ten years old, from the intrusions of other disciplines, but it may also be the case that many may not find the time for actually playing a larger number of similar games and may instead prefer to continue theoretical investigations. However, if something other than sociologically relevant data is to be gained, somebody will actually have to do the groundwork. Maybe the current thesis helps to make a modest and very small step into this direction, although it has a rather specific goal.

This thesis has attempted to marry insights about the characteristics of the video game medium gained from Game Studies with theory hailing prominently from the area of literature and film studies, which has recently been extended to be applicable to a number of different media. As some of these theories have identified a trend in many media, and specifically in the pop-cultural manifestation of their medial products, to approximate the self-reflexivity and metareferentiality that is often claimed to be typical of the postmodern novel and film, we have taken a look at how this manifests itself in the probably youngest new medium, the video game. This medium is still changing, mutating and adapting to new technology, and is probably still far away from developing its own established 'grammar' of techniques and devices used to enable

gameplay and provide a highly entertaining experience at that. Still, experiment in forms of gameplay is already beginning to slowly stagnate in some genres. We have seen that 'Easter Eggs', self-reference and metareference are, in the examples from some genres given, a way to establish a close bond between developers and players of 'genre games' that includes both knowledge of the medium (especially of its formal layer, its rules) and knowledge of other medial products with similar content. Mostly, these references are non-critical, but they may provide an additional motivation for a specific type of player, the paidia player in a ludus environment, and while players can switch between these two types of video game play on the fly, many players will actively seek out such additional incentives to play these genre games thoroughly. Another result of the present thesis is that series of 'genre games' developed by the same companies can use Easter Eggs to establish connections to predecessors, and will often require their players to be familiar with them. Some Easter Eggs can also move between different parts of a whole game series and be reinterpreted by changing game development teams. The players of these games have a considerable amount of influence over some items that will be in a final game, and game designers can include Easter Eggs, self-reference and metareference in their genre games as a way to reward both diligent players and fans of their series for their loyalty, and will also use Easter Eggs to include wider discussions of video games and video game genres into their products. Lastly, we have seen that some video games also increasingly appropriate forms of metareference as they are used, for instance, in film, but that they always do so implicitly.

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Appendix A – Ludology vs. Narratology

Here, I will list a number of texts that have featured prominently in the ludology vs. narratology debate until the debate seems to have somehow subsided and disappeared. Since then, most of the researchers allegedly involved in this debate, of which Gonzalo Frasca claimed that it “never took place” (see Frasca, *Ludologists*), went their ways and have turned towards new issues and goals.

The two texts that were probably cited most often in this fictional or real debate were Espen Aarseth’s still widely used discussion of hypertexts or interactive literary texts that can, in traditional views of literature, be classified as paraliterary, *Cybertext: Perspectives on Ergodic Literature* (1997). The other main text that has ever since also been cited countless times was Janet Murray’s *Hamlet on the Holodeck: The Future of Narrative in Cyberspace* (1997), which takes a different approach and examines the computer as an immensely potent possibility for the creation of narrative forms.

While this is probably an oversimplification, it could be said that the fictional or real ‘ludologist camp’ was mainly composed of Scandinavian scholars gathering around the views of Espen Aarseth’s seminal work, and the ‘narratologist camp’ mainly of US scholars and prominent researchers in narratology, with some, such as Marie-Laure Ryan, instead opting to take a middle stance and approaching hypertext novels, video games and similarly ‘ergodic’ phenomena from a primarily narratological perspective, but taking the results of ludologist research into consideration. Therefore, we have most of Jesper Juul’s writings (*A Clash between Game and Narrative*, *Half-Real*, and many others), Espen Aarseth’s contributions (*Genre Trouble*, *Quest Games*, *Allegories of Space*) and most of Gonzalo Frasca’s contributions (such as *Ludology meets Narratology*, *Simulation vs Narrative*) approaching games from a primarily ludologist view (although all of these scholars increasingly took the fictional content into mind later), with Markku Eskelinen (with Ragnhild Tronstad) probably on the radical side of ludology (*Configurative Performances*, *Towards Computer Game Studies*). Henry Jenkins, a very well-known scholar of media studies and contemporary culture (see, for instance, *Game Design as Narrative Architecture*), was likewise criticized for adopting a narratologist stance in some of his writings. Marie-Laure Ryan (see relevant sections in *Avatars of Story*, *Beyond Myth and Metaphor* and *Narrative as Virtual Reality*)

tried to take a middle stance, but was likewise often criticised as having adopted the narratologist stance. Whatever the case may be, some publications regularly featured criticism aimed at the respectively other camp, until Gonzalo Frasca denied that the debate had ever taken place. Since then, the debate seems to have all disappeared, with new scholars moving into the field and focusing on more specific topics. What the fictional or real debate has, however, clearly yielded is a sensitisation towards both the rules of the games and their fictional worlds, and that both these layers can, but must not necessarily interact to provide different game experiences, with some games leaning more towards creating a believable world and some looking to provide a game experience that is very much uninterrupted by considerations of a virtual world.

See also Egenfeldt-Nielsen, Heide Smith and Pajares Tosca (189ff) for a general discussion of input into the issue of narrative in video games with a brief discussion of the aforementioned debate, results, and current approaches.

Appendix B – English Abstract

The present diploma thesis takes current research in intermedia studies as a starting point for researching video games. Using research into the self-referentiality of different media, and, more specifically, the concept of *metareference*, which is a special case of self-reference that aims at eliciting ‘meta-awareness’ in the recipient and causing him to reflect upon the fictionality or mediality of a given work, the thesis attempts to unearth the central types and functions of *metareferential* self-reference in the video game. For analytical purposes, it draws inspirations from the new discipline of Game Studies, which has developed a large amount of useful theoretical and analytical tools for the analysis of video games. This approach has the purpose of showing that video games should not merely be understood as interactive movies, but that the formal, rule-based layer is what enables game play in games in general and video games in particular in the first place. Combined with the ‘meta-awareness’ that specific game objects attempt to trigger, the thesis shows that exactly the knowledge of the mediality and fictionality which are called upon by such objects can be a further attraction for many players, and that especially regular players will often welcome such challenges of their knowledge of the medium. Based on overviews of theoretical and analytical tools from both disciplines, it contains an analysis of instances of *metareference* in several games from two main genres, the role-playing game (RPG) and the shooter in their latest iterations: 3D RPGs and 3D Shooters. The insights drawn from examples of *metareference* in these games show that in these two rather ‘hermetic’ genres, in terms of the general fluidity of the video game medium, *metareference* can be used as an attraction for dedicated players. Game designers producing primarily games that belong to these two genres can use *metareference* to communicate with their hardcore fans through the game, and individual instances of metareference are therefore both a reward for dedicated players which provide additional entertainment, and a way to consolidate lovers of these ‘genre games’ on both ends of the product: designers and players joint in a community around their genre games of choice and exchanging ideas.

The thesis contains 15 digital images (screenshots) to illustrate the discussions.

Appendix C – German Abstract

Die vorliegende Diplomarbeit nimmt derzeitige Ergebnisse der Intermedialitätsforschung als den Ausgangspunkt für die Untersuchung von Videospielen. Unter Zuhilfenahme der Forschung zur Selbstreferentialität verschiedener Medien, und insbesondere des Konzeptes der 'Metareferenz', die einen Sonderfall der Selbstreferenz darstellt und darauf abzielt, im Rezipienten ein gewisses 'Metabewusstsein' hervorzurufen und ihn oder sie zur Reflektion über die Fiktionalität oder Medialität eines gegebenen Werkes anzuregen, zielt die Arbeit darauf ab, die zentralen Typen und Funktionen von metareferenzieller Selbstreferenz in Videospielen zu untersuchen. Zu Analyse Zwecken entlehnt sie dabei Einsichten aus der jungen Disziplin der 'Game Studies', die bereits eine Vielzahl nützlicher theoretischer und analytischer Werkzeuge zur Untersuchung von Videospielen hervorgebracht hat. Dieser Ansatz soll zeigen, dass Videospiele nicht nur als interaktive Filme zu verstehen sind, sondern dass gerade die formale, regelbasierte Seite das Spiel in Spielen generell und Videospielen speziell überhaupt erst ermöglicht. Verbunden mit dem 'Metabewusstsein', das bestimmte Objekte in Videospielen hervorrufen können, soll gezeigt werden, dass gerade das Wissen um die Medialität und Fiktionalität, das durch solche Objekte aufgerufen wird, für viele Spieler ein zusätzlicher Anreiz sein kann, und dass sich insbesondere regelmäßige Spieler über solche Herausforderungen ihres Wissens um das Medium freuen können. Basierend auf mehreren Übersichten von theoretischen und analytischen Werkzeugen beider Disziplinen und/oder Forschungsperspektiven enthält die Arbeit eine Analyse von Beispielen der Metareferenz in mehreren verschiedenen Spielen aus zwei großen Videospielgattungen, dem Rollenspiel und dem Shooter, in ihren letztgültigen Fassungen: dem 3D Rollenspiel und dem 3D Shooter. Die gewonnenen Einsichten aus den Beispielen für Metareferenz in diesen Spielen zeigen, dass in diesen beiden relativ 'hermetischen' Gattungen, zumindest hinsichtlich der relativen 'Flüssigkeit' des Mediums Videospiel, Metareferenz durchaus als eine zusätzliche Attraktion für fleißige Spieler gesehen werden und verwendet werden kann. Spielentwickler, die vorrangig Spiele, die zu diesen beiden Gattungen zu zählen wären, produzieren, können Metareferenz dazu verwenden, um durch diese mit ihren Hardcore-Fans zu kommunizieren, und

einzelne Beispiele der Metareferenz können daher sowohl als Belohnung für fleißige Spieler gesehen werden, die zusätzliche Unterhaltung bieten, als auch als eine Möglichkeit, die Liebhaber dieser ‚Genre Games‘ an beiden Enden des Produktes zu konsolidieren: Entwickler und Spieler sind vereint in einer ‚Community‘, die sich um die Spiele der Wahl dreht und den gegenseitigen Ideenaustausch ermöglicht.

Die Diplomarbeit enthält 15 digitale Bilder, die die Diskussionen untermauern sollen.

Curriculum Vitae

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