Between Regulation and Improvisation:

Playing and Analysing

“Games in the Middle”

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Contents

Abstract

Building a new research focus, much attention within game studies has been given to either theorising computer games as abstract systems or to qualitative studies of players and their uses of games. Here, the analysis of actual computer games in terms of their aesthetics will be at the centre. In fact, the various discussions of method and theory are a means to the analytical end. A focus on the games as experienced and played, requires that players are taken into account as one part of the equation. Hence, this thesis takes a position somewhere between a game-centric and a player-centric approach, where the relation between the two becomes important.

Within game studies a central disagreement some years back was between those who approach computer games mainly as text or spectacle and those who approach them mainly as abstracted, formal structures. This thesis does neither, but rather argues that in the case of some computer games a holistic approach is needed. These games are referred to as “games in the middle”. This conceptualisation is based on an understanding of games as ranging from free form improvisation (paida play) to highly regulated activity aiming for predefined goals (ludus play). At the middle of this continuum, we find games that combine elements of paida and ludus play by being at once regulated and providing freedom for improvisation. Since games far towards the ludus pole have other characteristics and criteria of success than these “games in the middle”, the observations and theorisation concerned with the former are not necessarily valid or appropriate for the latter. Hence, some of the theories and conceptualisations carried out with an eye for pure ludus games are revisited and adapted to address games that combine ludus and paida elements. Central in that

discussion is the relation between game mechanics and surface expression, which I conceptualise as the ludic and the thematic dimension respectively. The first analysis further explores that relationship, for instance, offering examples of how to utilise the surface expression as a central resource for gameplay decision.

In order to approach computer games holistically, a unifying view that can account both for game mechanics and surface expression is needed. I suggest that a conceptualisation of computer games in terms of challenge offers exactly such a basis. While a narrow understanding of challenge as competition or a very difficult situation to a great degree prevails within games research, I offer a broader notion of challenge with incorporates both demanding situations and stimulation. Instead of relying on a purely ludic aesthetics, I suggest the study of computer games is in need of an aesthetics of challenge. This understanding never loses sight of the fundamental configurative and to a great degree goal-oriented character of computer games, but neither does it dismiss the potential function of representation, narrative and other thematic elements. The two last analyses in various ways take their starting point in challenge aesthetics.

Introduction

Both within the media and academia, there has been a tendency to speak of computer games[1] in quite general terms as if the great variety of genres could adequately be described in the same terms. While two things are shared by all, namely their material conditions and the regulation by rules to some degree or other, a large range of variations can be encompassed within this span. Bearing these differences in mind, descriptions and theories that apply to one type of computer games do not necessarily apply to others. One aim of this thesis is to nuance and broaden the approach to computer games that seems to be dominating much of the game oriented theorisation within computer games research, namely an understanding of games as abstract, highly regulated structures that form players' actions. However, computer games are not only a set of mechanisms for facilitating instrumental action within a narrowly defined frame. They even have a highly expressive dimension which may take many different forms. In the case of some games this latter dimension, apart from enabling perception of the game and differentiation between various elements, is more or less irrelevant to gameplay as one "coating" can easily be replaced for another. In other cases the expressive elements are, or can be, integral to overall gameplay. This, I claim, is a matter of design rather than of any natural properties of game mechanics or surface expression respectively.

This thesis, with a starting point in the relation between game mechanics and surface expression aims to present a basis for a holistic approach to computer games,

[1] I use the term "computer game" as a general term for games embedded in software and in requirement of some kind of electronic device to be executed and accessed.

which, in principle, regards both dimensions as integral to the game. This approach, certainly, may not be as relevant for computer games which mainly focus on their mechanisms, subordinating the expressive dimension to the former. On the other hand, it may be useful for some of the computer games that not only *appear* as game media-text hybrids but also are that in truth. This approach has grown out of my desire to not only theorise about computer games but also analyse them in terms of their aesthetics. While examples from actual computer games are often used to illustrate or back a theoretical point, analyses of individual computer games are still somewhat rare within game studies. Although contributions have risen the recent years, this part of computer games research could need more attention both in terms of methodology discussions, theory building, and, not least, actual analyses. There is yet some way to go before a solid body of computer game analyses has been created.

Marking out the playing field

Computer games have been studied academically within a diversity of fields at least since the early 1980ies (some examples are Buckles, 1985; Loftus & Loftus, 1983; Malone, 1980; Sudnow, 1984). By the mid and late 1990ies the multidisciplinary research focus of “game studies” was slowly taking shape through contributions from various fields such as literature (for instance, Aarseth, 1997; Friedman, 1995; Juul, 1999; Murray, 1997), ethnography and audience/fan studies (such as Fuller & Jenkins, 1995; Faurholt & Jessen, 1997) as well as educational approaches and contributions by

game designers.[2] Today game studies lives on as a highly multidisciplinary playing ground with multiple foci related to computer games, their design and uses.

The most visible dividing line within games research is probably the one between those who study games as formal structures, artefact, or text, and those who are mainly interested in players, that is, culture and the social (Aarseth, 2006, pp. 1-2; Bogost, 2008, p. 22; Calleja, 2007, p. 12; Juul, 2005, p. 11). Although this division may serve to underline that the research carried out within game studies does not necessary have the same object or aims, it is at the same time a simplification with side effects. By constructing a game-centric and a player-centric position, a notion of players and games as easily separated and mutually independent is easily reinforced. Games, however, only come to realisation when being played, while players, likewise, are only that on the basis of their playing. Game and player are intertwined in this actualisation, affecting each other throughout. Clearly, we may bracket one or the other in order to better study a particular aspect, but this is an act of abstraction and should be marked as such.

Since the late 90'ies quite a lot of effort has been put into the formulation of a theory for games and, especially, computer games under the umbrella of game studies. Rules, game mechanisms, and various typologies for classification have been developed and discussed as has the relation between computer games and other cultural forms. In order to create theory abstraction is called for in the construction of categories, models,

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[2] There is even a lot of work done within computer sciences and media psychology. These fields have concerned themselves with computer games at least since the early 1980ies. Although more contributors from this field also start to pay interest to "game studies", they have had plenty of publication opportunities within their own fields. These approaches are based on natural science paradigms, while the contributors to "game studies" have typically had a humanities background (literature, film studies, media studies, cultural studies, ethnography).

and other analytical devices. This is only one side of understanding a given phenomena, however. The work is not done with the construction of definitions and typologies or with explanations of the relations between highly abstracted functions within an idealised system:

> "Every theory embodies an abstraction of the material it seeks to categorize. The degree of abstraction is a precondition for the success of categorization, and so the theory screens off the individuality of the material, whereas it is the central function of interpretive methods to focus on and elucidate this very individuality. Thus theory provides the framework of general categories, while method, through individual analysis, makes it possible to differentiate retrospectively between the assumptions underlying theory because of the material that is not covered by the theories." (Iser, 2006, p. 10)

There is a need to likewise prioritise the study of actual computer games in all their particularity. Otherwise theory is created simply for the sake of doing it, while the messiness of the very phenomenon under study is avoided with its disturbing requirement of engagement. The analyses that have been carried out have to a great been focusing on textuality or spectacle, using the concepts and theories from literature and film studies. While the awareness of computer games' differences compared to literature and film has increased over the recent years and this also has become more visible in analyses, there is still a need for more holistic approaches that take both the game as rule regulated structure as well as the surface elements into account. This is the background for the current work.

My exploration

The starting point for this thesis is computer games. They, *as they were played,* were the initial causes of curiosity and wonderment. Still, I seek to position my work between the game-centric and the player-centric. The main reason is that I am interested in how we

can approach and analyse *actual* computer games, rather than abstracted ones, and these are only accessible for analytical scrutiny through the involvement of an actual player, even if the access is second hand via someone else' engagement.

Ironically, I did begin this project with the intention to map create a taxonomy of challenge types found in various computer games. Even at that time the ultimate aim was to analyse actual games based on an approach that regarded the games as wholes rather than formal, ludic structures with a more or less irrelevant expressive side to it. The intuition behind, namely that the notion of challenge may be able to incorporate both game mechanics as well the surface signs of computer games has also remained the same, although the approach has changed. As I worked through the genres, describing challenges and their various conditions, the futility of classification became more and more clear to me. While categories can be used to superfluously pick something apart or mark it as belonging to a certain genre, they do not necessarily tell much about the phenomenon. Fixed categories, also, in the face computer game developments can always only be temporary. It was also at this point I began to be interested in players, an element of gameplay I had hereto conveniently bracketed.

In the end this thesis has become more of an exploration into the possibilities for holistic analysis of computer games than hypothesis driven. As already mentioned there are two focus areas. One is the relation between game mechanisms and surface expressions, the other is the search for a fruitful approach to holistic analyses of computer games in terms of aesthetics. The two are related in that the first leads to a theoretical discussion which may form the basis for engaging with the other.

With regards to the relation between game mechanisms and surface expression, one question is central: How can the relation between game mechanisms and surface

expression be characterised? Is the relation hierarchical with game mechanics always being the dominant element, or is there a basis for approaching this aspect of computer games without predefined notions of ones superiority over the other?

I believe such a basis can be found, in fact, I seek to offer it here. Continuing on from that foundation, I then seek to further provide a framework for approaching computer games as wholes, rather than merely abstract structures. Here the question, then, becomes to find a unifying platform: *How can we approach computer games holistically in order to analyse their aesthetics?*

Throughout the thesis, the offered conceptualisations are applied in analysis of actual games. The intention behind this is both to evaluate the theoretical and methodological work, but also to contribute to a growing body of computer game analyses. Carrying out analyses also raises methodological questions, which need to be considered and answered: *How do we access computer games for analysis, and what does this means for the material in question?*

The at once theoretical and application-oriented focus of this thesis means, that the conclusion will both discuss the offered answers to the posed questions as well as evaluate their application as detailed in the analyses.

Thesis structure

Since theorisation and application are both central in this thesis, ideally I would have wanted to let theory or methodology chapters be followed by an analysis engaging with the particular issues discussed. While this structure seemed viable at first, I realised that some topics had to be covered right from the beginning rather than later. Moreover, as

one of the foundational chapters grew to two, I ended up being one analysis short. So while analyses do not necessarily follow their respective theory chapters anymore, I have tried to make the connections clear throughout.

The first chapter will seek to lay a general foundation on which to further investigate the peculiarities of computer games. Caillios' ludus-paida continuum is introduced together with other discussions of the differences between free form and more formalised games. Then various understandings of formal games are considered in order to arrive at the approach taken here. There is even a brief introduction to a central schism within game studies. In the end I present the kind of games I will be focusing on here, namely computer role playing games, and outline the foundations for my approach.

The second chapter engages some methodological questions. Central is the relation between player and game and how it can be incorporated in an analytical approach to computer games. I suggest two different ways of doing this, either employing the analytical construct of the implied player or by embracing subjectivity in the analytical account.

After the foundation for the work has been laid with the two first chapters, the third chapter presents my approach to computer games. Beginning with a discussion of the conceptualisation of computer games as having a dualist materiality, I argue that a more nuanced understanding of the relation between game mechanisms and surface signs is needed than what is currently offered. Instead of seeing the latter as subordinated the former I suggest that the relation between the two will differ depending on the complexity and regulation of a given game. I then present a understanding of computer games as having two different meaning layers, the ludic and the thematic, at that the

relation between the two is not a given derived from the “nature of games” but rather a feature of game design. I end that chapter by discussing various features of the thematic dimension.

Many of the issued discussed in the previous chapter are brought into play in the fourth chapter, which presents the first analysis. The game in question is *The Witcher* and the central topic is the relation between the ludic and the thematic.

Chapter five introduces the notion of challenge as a basis on which to approach computer games holistically. I discuss the concept and how it has been used within game studies. Presenting a broad notion of challenge as both demanding situations and stimulation, I call for an aesthetics of challenge to replace a more narrow ludologic concern with mainly mechanics and rules. I also offer suggestions as to how the notion of challenge can be used analytically in relation to computer games.

The sixth chapter is another analysis, this time with focus on how challenge may be offered in various ways in two different games, namely *Titan Quest* and *Oblivion*. The two games are compared in order to focus on the consequences of different approaches to challenge.

The last chapter is also dedicated to a game analysis, in this case *Fallout 3*. Here I seek to bring into play all the different concepts and tools discussed throughout the thesis.

1. All the different games we play

> "What is play? And what is a game? These are ontological issues because they deal with structure and formalisms. A brief definition: Play is an open-ended territory in which make-believe and world-building are crucial factors. Games are confined areas that challenge the interpretation and optimizing of rules and tactics - not to mention time and space." (Walther, 2003)

The various phenomena we call games are tremendously diverse and a general definition encompassing all is hard to come by. In many cases speaking only of games with no qualification of the term will be too general, potentially leading to confusion and lack of clarity. Hence, this chapter is dedicated to laying out the fundament for the rest of the thesis by making clear the particular position that underlies this work.

First the relation between games and play is briefly addressed. This is followed by a discussion of some particularly interesting approaches to games. Then, computer games' are considered with respect to their position as both continuations of an ancient tradition and as examples of a new media form which, due to its particular mediality, carries the potential for hybridisation. Lastly, I will position this work in relation to the discussed topics.

Two kinds of games

One fundamental distinction that is made in some languages, but not English, is a differentiation between free form games, such as childrens' play, and formally ruled games, such as a tennis match or a bridge session. The French sociologist Roger Caillois in his treatise on play borrows a Greek and a Latin term to differentiate between the two, referring to the first as paida and the latter as ludus (Caillios, 2001, p. 13). It

should be noted, however, that the two terms are not originally limited to these two conceptualisations and that both carry a broader range of significances. Hence, the paida/ludus distinction as discussed here is Caillios' conception. He envisions the two as opposite poles in a continuum of games:

> "At one extreme an almost indivisible principle, common to diversion, turbulence, free improvisation and carefree gaiety is dominant. It manifests a kind of uncontrolled fantasy that can be designated by the term *paida*. At the opposite extreme, this frolicsome and impulsive exuberance is almost entirely absorbed or disciplined by a complementary, and in some respects inverse, tendency to its anarchic and capricious nature: there is a growing tendency to bind it with arbitrary, imperative, and purposely tedious conventions, to oppose it still more by ceaselessly practicing the most embarrassing chicanery upon it, in order to make it more uncertain of attaining its desired effect. This latter principle is completely impractical, even though it requires an ever greater amount of effort, patience, skill, or ingenuity. I call this second component *ludus*." (Caillois, 2001, p. 13)

Where paida play is described as free and absorbed improvisation, ludus play requires skills and effort, and the activity is framed by rules that give rise to uncertainty. While the two types of activities have different characteristics, they are both characterised by a mental framing that to some degree sets them apart from everyday life by the very distinction "this is play" (Bateson, 1985). This does not mean that players are somehow outside the life world but rather that they, when playing and gaming, maintain frames within frames (Fine, 2002; Linderoth, 2008). Inscribed in the meta-communicative frames "this is play" or "this is a game" (Bateson, 1985), these activities at once refer back to the life world but at the same time take on a new meaning internal to the activity. Importantly, this framing is social and not a closed or hard boundary as the

popular notion of “the magic circle” is sometimes made out to be (Copier, 2005; Jakobsson & Pargman, 2008; Taylor, 2007).[3]

Taking a systemic approach to games, Bo Kampmann Walther (2003) in his analysis of the differences between play-mode and game-mode argues that the latter takes place at higher level of complexity, than the former. While play activity, as observed and analysed by Bateson, is marked by the meta-communicative distinction “this is play” (Bateson, 1985), gaming, according to Walther and his system theory focus, operates with a double distinction, making it a third order phenomenon. Not only is the activity demarcated by the framing “this is a game”. The gaming situation is, moreover, inscribed into yet another frame, namely the explicitly formulated rules that further regulate it and set it apart. (Walther, 2003)

Although Walther delivers a systemic analysis of the two phenomena, he also indicates some of their phenomenological qualities. That play focuses on make-believe and world building, while gaming is a matter of progress and strategic thinking. (Walther, 2003) We lose ourselves in all kinds of games – according to Hans Georg Gadamer we are being played (Gadamer, 1989, p. 106) – but the engrossments of the two activities are not similar. The first is marked by uncontrolled commotion, improvisation, and often a shared fantasy, while the latter requires a more detached and strategic kind of involvement. Here the ludic frame is maintained through the shared acknowledgement of the rules rather than through imagination or commotion. As Walther also notes this does not mean that the two cannot be mixed (Walther, 2003).

[3] For further discussions of the magic circle and its various conceptualisations within games research see Crawford (2009) and Juul (2008).

A game is a game

Unless otherwise specified by the designations “ludus” and “paida”, the term “game” here refers to formally ruled games of all kinds. Still, what is meant by the term in this context needs to be addressed briefly because, while that understanding necessarily informs everything else, it is not a given. I take on that discussion without intentions to split hairs over the perfect definition; *that* game is not one to be played here (Wittgenstein, 2001, p. 28). Overviews of definitions from various fields are offered both by Jesper Juul as well as Katie Salen and Eric Zimmerman (Juul, 2005, ch. 2; Salen & Zimmerman, 2004, ch. 7). To mention some examples, a game is, for instance, defined as an:

> “[...] exercise of voluntary control systems, in which there is an opposition between forces, confined by a procedure and rules in order to produce a disequilibrial outcome.” (Avedon & Sutton-Smith, 1971, p. 7)

> “[...] activity directed towards bringing about a specific state of affairs, using only means permitted by rules, where the rules prohibit more efficient means in favor of less efficient means, and where such rules are accepted just because they make possible such activity.” (Suits, 1978, p. 34)

Discussing the various definitions and based on their shared characteristics both Juul as well as Salen and Zimmerman offer up their own definitions:

> “A game is a rule-based system with a variable 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, 2005, p. 36)

> “A game is a system in which players engage in an artificial conflict defined by rules, that result in a quantifiable outcome.” (Salen & Zimmerman, 2004, p. 80)

Apart from the notion of the player's emotional attachment to the outcome, which I find problematic since it can only be an ideal implied by the game not an actuality for every player, the two definitions – like the rest discussed in both books – are quite similar.

One of the recurrent characteristics shared by most of these definitions is the centrality of rules. Games are seen as defined, regulated and governed by rules. These rules both specify illegal actions, game mechanisms and explicit or implicit goals that should be reached while playing. Computer games, moreover, in so far as they simulate space, time and movement even have rules that specify all environmental features, such as how objects react to manipulation and move in the simulated "space".

Andreas Gregersen suggests it is important to distinguish between what he calls "simulation laws" and "game rules" (Gregersen, 2005). This seems a reasonable distinction because the former regulate all kinds of digital environments, while the latter are only added if the simulation in question has been designed to be used as a ludus game. Compare, for instance, the virtual environment *Second Life* (2003) with *World of Warcraft* (2004). While both offer simulated environments where users can interact via avatars and chat, the latter is generally described as being a game while the former is not. The difference between the two is that the latter is created with a host of requirements for instrumental action and each completed action points to a subsequent action, thereby suggesting a certain focus for the users' actions. Although both virtual worlds have simulated natural laws as well as social rules that define accepted behaviour (the latter not directly enforced via the software, instead requiring human intervention), *World of Warcraft* also has rules that define the successfulness of many of the activities available for users to engage in while this is not the case with *Second Life*. This is the difference that marks the first as a game. Note that it is fully possible to play

games in *Second Life*, should anyone wish to, just as *World of Warcraft* players may choose to use the application mainly as a social venue.

An alternative definition of "game" which does not refer to rules at all has been suggested by Thomas Malaby (2007). His central aim is to question the often habitual coupling of games with notions of fun, safety and separation that is based on Johan Huizinga's understanding of play (Huizinga, 1955). Gambling and professional sports are mentioned as central examples of serious, life altering gameplay activities that may be both strenuous and highly unpleasant. While the definitions discussed hereto have mainly approached games as formal systems, Malaby's concern is with human practice and this outlook accounts for the differences. Avoiding any mention of rules, Malaby proposes that a game is:

> "[…] a semi-bounded and socially legitimate domain of contrived contingency that generates interpretable outcomes." (Malaby, 2007)

This is an interesting definition which stresses several qualities that are also central for this thesis. Namely that games are constructs, that gameplaying is a situated practice despite the framing that may be provided by the game's setup, as well as the centrality of uncertainty for the gameplay experience. The notion of "interpretable outcomes" is also important, since many of the games that are central here do not have a clear winning condition.

Existence is marked by contingency, this is central in Malaby's exposition, and he sees this state reproduced in a contained and more controlled form in games:

> "Contingency is also a fruitful path to follow if we are interested in what makes games compelling. According to Heidegger and the phenomenologists, our

> existence in an uncertain world not of our own making is a fundamental aspect of human experience. In this respect the wide-ranging unpredictability of our everyday experience and the contrived unpredictability of games point toward a bridge, rather than a gap, between games and other aspects of our lives." (Malaby, 2007)

Games, then, according to this view allow humans to live through and try to manage a fundamental facet of existence. Although uncertainty, rather than the more philosophical notion of contingency, will be central when I introduce challenge as a key concept that may be used to further understand and analyse computer games in chapter five, many of the underlying intuitions are similar to what has just been discussed here.

Relevant in that connection are even the three sources for contingency in games that Malaby indicates, namely the stochastic, the social and the semiotic (Malaby, 2007). The first refers to the unpredictability created by complex processes with random outcomes. The second refers to the uncertainty created by not knowing what moves other players will make. The third refers to the many ways that a game's outcome may be interpreted. Even though, from the perspective of the game as system, victory or defeat are undisputable facts, this is never so in the socio-cultural context of human affairs. With respect to computer games, I suggest that their expressive dimension should be included in the last category, too. Although it is not always the case, the surface signs of some computer games may contribute to the generation of uncertainty as will be clear from the next chapters.

Although he professes it to be, in many respects Malaby's definition is not that different from the ones discussed by Juul or Salen and Zimmerman, save for the absence of rules. He gives the following reason for not including any notion of rules in his definition:

> "[...] games are grounded in (and constituted by) human practice, and are therefore always in the process of becoming. This also means that they are not reducible to their rules. This is because any given singular moment in any given game may generate new practices or new meanings, which may in turn transform the way the game is played, either formally or practically (through a change in rules or conventions)." (Malaby, 2007)

While my interest is to understand and describe computer games beyond the formalism of features or listed rules, I believe that rules must be taken into account in that analysis as well.

Rules should not be ignored when defining ludus games because they are central in laying out the frame for the game. In most cases game rules, contrary to Malaby's claim that game rules are unlike those of a bureaucracy (Malaby, 2007), at the same time deliver the foundation for *reducing unpredictability* as well as for *creating it* through the combination of allowed moves. That is, rules in games have a double function of both defining the situation as well as of enabling a variety of different and, ideally, unpredictable outcomes. Acknowledging that ludus games are defined by rules one way or the other – even if these are often negotiated, changed or circumvented, is not equal to reducing them to their rules. Especially in the case of computer games is it hard to ignore the function of rules as these are enforced by the game engine and may be outside players' sphere of influence. Here rules (both those that define the simulation and those that regulate the game) are a fundamental part of the game's "materiality"; the arrangement of electrical impulses as dictated by code:

> "In the materiality of *Sim City 4* the extent of my freedom is defined before I set out to play: some kinds of actions and their combinations are possible whereas others are not. If I could do whatever I wanted in *Sim City 4*, there might not be a significant difference between "wishing" and "choosing". That as a consequence of

> certain choices I can fail and be prohibited to continue playing *Sim City 4*, exemplifies that the game resists my actions, and that the notions of "choice", "success" and "failure" are meaningful in the specific context of *Sim City 4*." (Leino, 2009, p. 11)

Although some negotiation may be possible in the form of game hacks or cheat codes, the ability to alter the game is often not available to the general player. Moreover, as pointed out by Olli Leino (2009), ingenious or unexpected uses of computer games are not true examples of rule negotiation. Rather, players in these cases discover alternative uses of features that are already part of the conditions offered by the game. While these uses may not have been intended by designers, they do not conflict with the system that has been created.

Hence, while I find Malaby's conceptualisation of games very useful for this work, implicit or explicit rules are certainly included in my perceptive. Throughout this thesis, it is precisely the tensions and synergies that emerge in the meeting between different human practices – the instrumental action of following rules to achieve a set goal on the one hand and entering into make-believe and world-building on the other hand that is the central concern. Right there, in the middle of the ludus-paida continuum, interesting things happen and unlikely combinations emerge.

When appearances deceive

With respect to their ludic components, the only radically novel about computer games in comparison with analogue games are their ever increasing ability to handle vast amounts of information extremely quickly and the machine's position as referee as well as definer and executer of mechanisms. As processing power has increased, this outsourcing of responsibility has lead to the creation of highly complex games which

require far too many computations to be administrated by human players directly with only the aid of, for instance, pen and paper. The increased capability to create and handle complexity as well as the delegation of control to the machine does set computer games apart from earlier games both in terms of possible game designs but also with respect to the players' relation to the game. As mentioned above, computer games' rules are, for instance, not negotiable to the same degree that analogue game rules can be. Still, in terms of their ludic devices and techniques, that is, as abstracted systems, computer games can be seen as a continuation of an ancient tradition. In terms of appearance, however, computer games to a much stronger degree than earlier games appear as media texts, whether relying mainly on animated graphics or text.

While early computer games, such as *Pong* (1972) and *Spacewar* (1978) only featured very simple and coarse graphics, the graphical capabilities of computers has increased steadily over the years and many contemporary computer games can be compared to animated movies in terms of their audiovisual qualities. As computers have developed from sophisticated calculators to flexible and user friendly media machines it has become increasingly easy to merge various types of cultural expression in the simulation because all can be contained in the digital paradigm (Manovich, 2001). Consequently, there is a potential for developing hybrids of various kinds. These hybrids may offer both configuration opportunities as well as a well developed expressivity. However, when actions are played back through animated sequences even those computer games that at their core are continuations of the ludic tradition rather than novel mergers may appear seductively new and different.

At the representational level, contemporary computer games' animated sequences simulated in more or less real time bear very little resemblance to the rule books, game tokens, boards, dice, or cards normally associated with traditional, analogue games. Someone who does not play computer games but watches the results of another's playing may easily take note only of the strong expressive features, while failing to grasp most of what takes place under the surface (Faurholt & Jessen, 1997). Likely, this is partly what happened as researchers within the humanities began discussing computer games mainly in terms of their (often lacking) immersive narrative, dramatic, or cinematic qualities (see, for instance, Jensen, 1988; Laurel, 1991; Murray, 1997). Other concerns, such as extending the explanative reach of ones' field to novel and somewhat similar phenomena probably also applied. Computer games, however, do not necessarily fit well with the criteria of quality prevailing within those fields. One prominent reason being that the games' are often not created to foremost communicate cultural meaning but rather to provide specific conditions for players to act and achieve within.

In a research climate where computer games within the humanities were addressed mainly within a traditional textual paradigm a small group of literary scholars, the so-called ludologists, in the late 90ies began to emphasis the ludic side (Aarseth, 1997; Frasca, 1998; Juul, 1999). Rules, mechanisms, goals, and the various formal properties of the game as function received some much needed attention. In the eagerness to protect games from what they saw as an attempt at disciplinary colonisation, the tone at times because highly polemic:

> "The first point of departure for this article is a kind of paradox or contradiction. Outside academic theory people are usually excellent at making distinctions between narrative, drama and games. If I throw a ball at you I don't expect you to

> drop it and wait until it starts telling stories. On the other hand, if and when games and especially computer games are studied and theorized they are almost without exception colonised from the fields of literary, theatre, drama and film studies." (Eskelinen, 2001)

In this spirit much of the so-called ludology-narratology debate was conducted. Since others have already chronicled this part of computer games research's history (Calleja, 2007, pp. 16-20; Frasca, 2003a; Murray; 2005) I will not go into the particulars of the debate here. I mention the discussion mainly because a central, but not necessarily always explicitly debated, theme in the discussion was the relation between computer games' expressive and mechanic aspects. The "ludologists" wanted to stress the latter, at times even discarding the former as irrelevant window dressing (Eskelinen, 2001), while the "narratologist", as already mentioned, saw the games mainly in terms of their surface expression.

One of the problems with both perspectives, in so far as the positions can even be called that, has been a tendency to refer very generally to computer games as if it were a body of rather similar members. Hence, when specific games have been used as examples it has often been unclear on what level of generality any claims should be read. This is, for instance, the case with Espen Aarseth's description of his experience playing *Tomb Raider* (1996):

> "Likewise, the dimensions of Lara Croft's body, already analyzed to death by film theorists, are irrelevant to me as a player, because a different-looking body would not make me play differently [...]. When I play, I don't even see her body, but see though it and past it." (Aarseth, 2004, p. 48)

This statement, if read as a general claim, may be taken to mean that the expressive side of computer games is unimportant in principle, a controversial and problematic assertion. However, read simply as a description of the engagement with a particular

game series, Aarseth makes an accurate observation. Namely, that the quick reactions and well honed timing needed in order to succeed in a fast paced, coordination requiring game like *Tomb Raider* is a task that at most times leaves players very little time and option to focus on anything but the essentials. That is, how to use the keyboard and mouse commands most quickly and effectively to respond to the obstacles in the environment. It has to be added, however, that even personal playing style may have an effect here. While the game's requirements creates some restrictions that players must accept in order to play, Aarseth's highly instrumental approach need not be the only one. Other players may well have different reactions to playing with Lara.

The lesson to learn from this, I think, is that there is a need to approach computer games as particular instances first and general cases only after careful analysis where it is made clear to what extent generalisation can be made. It is not a given that all computer games require or allow players to defocus from the game's expressive side in order to concentrate on making the right motions. While it may be tempting to ascribe modes of player engagement as well as certain tensions between mechanisms and expression to the general nature of games, this is a highly problematic strategy because there is not one nature of games to refer to but rather innumerable variations. Instead, if anyone wishes to do this, genre will have to be considered as an important factor. Hence, I take this as an encouragement to focus on the particulars of specific games, not in order to make universal claims but rather to broaden the knowledge and understanding of the diversity of computer games.

As some of the later chapters will show, it is not a given that all computer games require or allow players to defocus from the game's expressive side in order to concentrate on making the right motions. Some computer games offer their surface

signs as vital components in the gaming experience. This is the case with most adventure games such as the classical *Monkey Island 2: LeChuck's Revenge* (1991) or *The Beast within: A Gabriel Knight Mystery* (1995). In chapter four a computer role playing game that specifically offers this aspect of the game as a resource for decision making will be discussed extensively. While it may be tempting to ascribe modes of player engagement as well as certain tensions between mechanisms and expression to the general nature of games, this is not a feasible path because there is not, as already discussed, one nature of games to refer to but rather innumerable variations. Instead, if anyone wishes to do this, genre will play in as an important factor. While some games are purely ludus or paida oriented, others combine and mix both components. We could call these the games in the middle.

Games in the middle

The closer towards the ludus pole a game is the more it will require purely instrumental action. By setting up predefined goals that are inscribed with value, the game urges the player onward towards completion and victory. Within the ludic framing created by such games, winning takes precedence over everything else and other aspects, such as aesthetics or any cultural meaning that may usually be ascribed to the appearance of the gaming devices are momentarily suspended. Sociologist Erving Goffman refers to this as the rules of irrelevance (1972, p. 19).[4] The ludic frame, of course, may be inscribed

[4] It does not follow from this, however, that games cannot or should not be read culturally. As so many other cultural objects, games reflect the societies they are created in, for instance in terms of the values expressed through their mechanisms and general appearance. See, for instance, Consalvo & Dutton (2006), Dovey & Kennedy (2006), Kline et al. (2003), King & Krzywinska (2006).

into other frames, for instance the cultural significance that may be attached to winning or losing a game or social considerations, such as making sure a child wins. The ludus-paida continuum, however, also has a middle point where the qualities of ludus and paida merge, creating their own pleasurable paradox. Although they are admittedly rarities in the big picture, there are examples of formally ruled games that also involve enactment, creative construction and imaginative play to varying degrees. These games combine competition or goal-oriented actions with make-believe, usually also adding an element of chance. Examples of such mergers predate computer games.

Taking a starting point in war games but adding a hereto new focus, namely the individual participants, Gary Gygax and Dave Arneson in 1974 created the rule set to the first *Dungeon and Dragons* game which soon inspired a variety of tabletop role playing game systems. The participants each played a character embarking on adventure in a fantasy setting while a game master upheld the rules and the progression of events. (Costikyan, 2007) “Murder Mysteries” are earlier examples of games that require the participants enacting roles and solving constructed problems within a frame of simple rules and winning conditions. The Agatha Christie crime novel *A Murder is Announced*, for instance, alludes to such a game setup (Christie, 1950). Games of this kind, to a much greater degree than other games, offer a double meaning, something I will discuss in much more depth in the next chapter. One of these meaning layers is concerned with function and strategy and the other is concerned with cultural meaning, narrative, and creative expression. Since setting, narrative, and character usually matters in these games they have to delicately balance the two meaning layers so that one does override the other, resulting in the irrelevancy of the latter. It is this balancing act and the results of this relation that are the main concern of this thesis.

Unlike pure paida games, the games in the middle are regulated and take place within a more finite setup where things cannot be changed purely on a whim but must happen in accordance with the rules. Here the construction and improvisation of paida is carried out within the defined boundaries of ludus. Clearly this merger is ripe with tension between freedom and regulation, but it is not necessarily a negative relation. Rather, utilised the right way it may offer the enjoyment of being able to create, combine, and improvise within a defined frame that is maintained by a system exterior to players. While unlimited freedom may be overwhelming, this setup offers boundaries to bounce off creative efforts on, including attempts at circumventing or subverting the restrictions. Where the pure ludus game may feel too utilitarian and restricted, the "games in the middle" offer some room for choice or imaginative play, even allowing aesthetics to play a role.

The game I play

Here, I approach computer games as ruled, constructed structures that require, motivate, and facilitate configurative engagement. Above I have discussed both definitions that focus on games as formal systems as well as some that focus on games as social practice. Here, my interest is in either, but rather in the co-dependent relationship between game and player. Games unfold in the meeting between player and ludic devices, such as rules and game equipment. Although my concern is not foremost with players' experience of games, the only way to get to the game is through that experience, something I discuss at much greater length in the next chapter. On the one hand, then, there are structures and devices constructed to invite and motivate engagement but also to regulate it in various ways, on the other hand there is a player

who actualises the potential inherent in the game as artefact, producing a variety of outcomes based on her choices. These choices may comply with the structures defined by the game as system but do not necessarily have to do that. In case of the latter, however, the player is always in danger of ending the game if her actions are too incompatible with the decrees that mark the frames of the game. Consequently it may seem like the game as artefact is the dominant factor, but negotiations of various kinds may serve to change the frame offered. Hence, affective power goes both ways, and the game is only dominant in so far as players allow it to be by approaching it with a lusory attitude (Suits, 1978).

The games that are central here are not only a particular kind of game with a particular materiality, namely computer games, I also focus on a specific genre, that is, computer role playing games. As has already been touched upon above, computer games are both similar to analogue games in following an ancient tradition but also different due to their particular materiality. The potential of contemporary computer technology likewise situates computer games alongside other visual media forms such as written text, film, comics, and visual arts. This raises interesting theoretical questions, for instance, about the relation between mechanics and surface expression, which the third chapter is dedicated to, but also about access to the game, a topic that will be discussed in following chapter.

Much of the theorisation mainly focused on the game that has been conducted during the last ten years within game studies has been based on games close to the ludus pole. These assumptions and observations do not necessarily apply to games in the middle of the paida-ludus continuum because they rely on somewhat different devices and dynamics. Attracted by the double agenda of such games both as a researcher and

as a player, I have decided to centre my work on them. While the next chapters consider basic methodological and theoretical questions related to computer games, this theorisation for me is a means to an end, namely the analytical engagement with actual games. The intention is to analyse the games as aesthetic processes, that is, in terms of the experiences they may give rise to, rather than mainly as abstracted, formal structures. The games that will be analysed as part of this work all belong to the same genre, namely computer role playing games. This particular genre has been chosen because it puts the relation between game mechanisms and surface signs into play, particularly. Most computer role playing games, for instance, alongside character development offer strong plot lines as well as elaborate fictional worlds. Thus, to a greater degree than pure ludus games, computer role playing games can be used to test the boundaries with the basis in actual games. At the same time, different types of computer role playing games are available. The so-called “hack and slash” games certainly favour the instrumental mode over more imaginative play, while other types, such as “open world” games, offer players highly detailed simulated environment with opportunities for different kinds of creative and constructional play, such as role playing a character. In comparison with adventure games, another computer game genre that is often seen as a borderline case in term of its gameness, computer role playing games contain more of the central ludus features such as a clear conflict or contest and a more generic rule set. Computer role playing games also in most cases offer a variety of choices which are more likely to lead to a greater variety from playing to playing, thus presenting interesting methodological challenges. Lastly, it should be no secret, either, that computer role playing games are one of my personal favourite genres. Purely instrumental gameplay quickly becomes tedious for me. Engaging with “games in the

middle” I can combine my desire for configuration with my love of narrative and my weakness for spectacle or beauty, also when it is found in chaos and imperfection.

2. Games actualised

> "The player's involvement is a necessity already on a conceptual level: to conceive something as a game necessarily implies filling the position(s) of the player(s) with something, that is, conceiving something as being the player of the game. This is not to say that all studies on games should focus on the player, let alone on human beings. However, while there are innumerable purposes for studying games without concerning with the player, looking at something by framing it as a 'game' implies leaving room for the game's player." (Leino, 2009)

Players are a crucial part of games as they are actualised and "come to life". As will be made clear here that is particularly true for computer games, because the program defining the game cannot be executed without the intervention of a user. Moreover, the higher the complexity of a computer game, the more visible and decisive the player's role is likely to be in terms of the material that emerges from the encounter between the two.

As touched upon in the introduction, game studies is a highly interdisciplinary research focus with all the potential both for synergy and confusion this entails. This is, perhaps, particularly clear in relation to conceptualisations of players. In order to make sense of the varying approaches, one demarcation within the humanities can be made between the traditional arts approaches, such as literature and film, on one hand and the more social and culturally oriented, such as cultural and media studies along with ethnographic approaches. We may then assume that the first group is mainly interested in the game "in itself", while the second is concerned with players, the various uses and possible effects of computer games. Both groups, however, have to take the other part of the game-player equation into consideration to some degree or other because those two are not easily separated, and also usually do that, even when feigning disinterest.

In a multidisciplinary undertaking such as computer games research it is not unimportant whether one uses “player” to signify an analytical construct, actual players, or an ideal player derived from a mixture of theory, intuitive understandings, and personal experience. In this chapter I will first argue for the importance of always taking players into consideration when engaging in game studies, whether the focus is mainly on the game or on players and their use of the game. Then various conceptualisations of players within computer games research are briefly considered. Finally, I suggest and discuss two ways in which we may incorporate players when approaching a computer game in order to analyse the game “in itself”.

Unavoidable players

Amongst researchers who mainly focus on the game, it is quite common to bracket players because the game is at the centre. While the bracketing in itself is perfectly valid, it may be a problematic act if it is done without any considerations regarding what this practice may entail. Juul in *Half Real* embraces the position that it is possible to study games in themselves, ignoring players. One example of this praxis that he mentions is economic game theory. (Juul, 2005, p. 11) However, even though the game (or the structures it represents) is seen as the determining factor for actions within this view, I will still claim that players are central in game theory. It may be that abstract positions are employed in the discipline’s models, but the prediction of how ideal, and by proxy actual, people will react in a specific scenario is still the central pursuit. Recent research within game theory even stresses the potentially misleading lure of abstraction. Thus, studies carried out with subjects from different cultures show

significant variances in terms of which choices are deemed most rational; responses that the models fail to predict (Cressman et al., 2009).

Jonas Heide Smith (2006), along the same lines as Juul, suggests that games may give rise to two different kinds of material for analysis:

> "One is the static game rules and/or game equipment. These can be submitted to "formal" analysis and thus categorized and dissected in any way desired (as I will return to in the context of the Rational Player Model in the next chapter). The other text type is actual instances of play. These instances are presumably somehow connected to the game rules but unlikely to be reducible to those rules in any simple sense."(Smith, 2006, p. 22)

Laying aside for a moment the fundamental phenomenological insight, that our abstractions are always rooted in the actual experiences of the life world, the problem with approaching the "game in itself" in terms of static rules and game equipment is that this generally still involves some notion of players, ideal rather than actual, as in the example of game theory above. That is not problematic in itself. The problem is rather the tendency to gloss over any assumptions about players underlying the abstraction, more or less naturalising these understandings in the process, by letting them remain implicit and unquestioned.

In relation to computer games, another problem presents itself with respect to a formalist, objectivist approach based on equipment and rules. Namely, that they do not necessarily provide an upfront overview of their "static game rules" or their game mechanics (the equipment), not to mention the simulation rules that define the "natural laws" in the simulated environment (Gregersen, 2005). Unlike most analogue games, computer games do not have any material representation in the form of, for instance, board, pieces, cards, or dice. The storage object carrying the game code is sometimes

referred to as “game”, but it does not offer any immediate access to the game itself, only to paratexts (Genette, 1997) such as cover art, paper manual, title, as well as information about developer and publishers. The only components that come close to a physical manifestation are the game code, which in most cases is not easily accessible or understandable for ordinary players, the concept art, and game descriptions from the design phase. Other second hand sources such as manuals and authoritative accounts by designers,[5] walkthroughs, observations of other players, discussion on game fora, or reviews all imply the activity of an actual player.

The computer game at its most tangible emerges from the underlying code as a process mediated via screen, speakers and possible force feedback; a process in need of operator input to run. Without active players there is no game, but only a potential hidden within some software. As it emerges during use, players have a central role in making many aspects of a computer game available for analysis. Hence, the player enters the equation as a function or position that cannot be done away with indiscriminatingly by those who wish to study the computer game “in itself”. Rather each analysis of a given games requires careful considerations about what role players may have in making the game available for scrutiny. This may vary highly, as will be discussed in more detail in the next chapter.

The only interesting variation between each playing of a simple game like *Space War* is the score. All other variations both in terms of gameplay and the audiovisual output are trivial because they carry no significance in the particular context created by

[5] While designers may be able to create an extremely simple game without play-testing it, most contemporary computer games are highly complex and are played through in some of their iterations. Thus, even designers become players.

that game where only score matters. The game, simply, does not offer any leverage for individual style or choices. A decidedly complex but still highly regulated game such as chess, on the other hand, allows for significant variations between games and different players may be known for particular styles and approaches. The element of individual choice and style becomes even greater when the game in question resides in the middle of the ludus-paida continuum, such as the case typically is with computer role playing games. Here significant variations most likely emerge both in terms of how a player chooses to employ game mechanisms, strategy and the audiovisual sequences that appear on the basis of those choices. Hence, in order to carry out aesthetic analyses of such games that move beyond superficial categorisation, the player must be taken into account. Not in the form of an anonymous, unspecified token but rather as an explicit position.

Players within game studies

Within games research there is a tendency both among those who approach computer games mainly with the aim to study players and those who choose to focus foremost on the game to not be explicit about the underlying assumptions that inform their understanding of players. For instance, only a few of the papers presented last year at a conference with an explicit focus on players and the understanding of them, made a point out of discussing or problematising their approach to players (Iversen (ed.), 2008). This tendency is problematic within a multidisciplinary research effort as the lack of explicitly defined positions easily contributes to misunderstandings and general imprecision.

Seeking to remedy the lack of explicit discussions of approaches to players, Jonas Heide Smith (200&) identifies four different understandings of players and their relations to games that he finds to be prominent within computer games research. These are the player as 1) susceptible to media effects, 2) selective media user, 3) active and subversive, or 4) rational and acting in accordance with the rules (Smith, 2006, pp. 21-23). Smith stresses that the four approaches are not necessarily mutually exclusive, although some are certainly more at odds than others (Smith, 2006, p. 39).

The first model focuses on how games in various ways affect players. Violent games, especially, receive much attention within this paradigm, but in the cases where learning is seen as an act of imparting knowledge studies of education games will belong to this category as well. The second model, on the other hand, assumes a more active player who chooses her games based on personal needs and preferences. The emphasis on participation, activity and player control is even stronger in the third model. Here subversive uses of games are central. The last model assumes an ideal player who acts rationally in accordance with the rules laid out by the game in order to optimise her own outcome. As Smith uses many examples from computer games research and design to illustrate the concrete expression of the various approaches, I will refer to the second chapter of *Plans and Purposes* rather than offer my own examples here. (Smith, 2006, ch. 2)

In his discussion of approaches to players, Smith follows a tendency within games research to position approaches as either game or player-centric (Aarseth, 2006, pp. 1-2; Bogost, 2008, p. 22; Calleja, 2007, p. 12; Juul, 2005, p. 11). While this optic may be helpful in making clear that all research carried out under the umbrella of game studies does not necessary have the same object, it is in other respects a somewhat obstructive

simplification that may easily serve to position specific works in “the other camp” and, thus, as being without real relevance. The simplification, moreover, glosses over the intertwined relation between player and game, which much work within games research does reflect to some degree or other, even when not being explicit about it. I have previously stressed the importance of incorporating players explicitly in analyses that focus on game aesthetics even in cases where the game, rather than the social or cultural practices surrounding its use, is at the centre (Iversen, 2008). The only access to a computer game as it unfolds is through an actual player, a methodological challenge that is only rarely mentioned within games research (Aarseth, 2003, 2007; Carr, 2006; Dovey & Kennedy, 2006, pp. 8-10; Lammes, 2007; Leino, 2009). Two of the main questions in that regard are, who should generate the data to be analysed, and how should the researcher position herself in relation to that data?

Generating game data

An analysis of a specific computer game may be based on either the researcher’s own playing or that of others, but there are several good reasons to choose the former. In one of the few discussions of computer game analysis methodologies, Aarseth (2003) advocates the playing researcher, arguing that one can only fully understand a game by playing it oneself:

> “If we have not experienced the game personally, we are liable to commit severe misunderstandings, even if we study the mechanics and try our best to guess at their workings. And unlike studies of films and literature, merely observing the action will not put us in the role of the audience. When others play, what takes place on the screen is only partly representative of what the player experiences. The other, perhaps more important part is the mental interpretation and exploration of the rules, which of course is invisible to the non-informed non-player. As non-

> players we don't know how to distinguish between functional and decorative sign elements in the game." (Aarseth, 2003)

Here Aarseth refers to the lure of the spectacle discussed in the previous chapter, where a researcher who does not play may mistake the audiovisual output resulting from the playing for all there is to the game. This output, however, is not on its own indicative of the game. It contributes, so to say, only with half of the equation. Analysing a computer game without playing it is, even in the case where the empirical material consists in observations of other players, similar to analysing a novel based solely on someone else's review. Since a single player may not find the time to play a given game in all its ramifications, it is suggested that the researcher's own playing should be coupled with sources detailing other players' experiences with the same game (Aarseth, 2003). This may be necessary if the aim is to give a saturated account of a given game. I would also like to add, that it is often important for a researcher to play without thought for academic work at first, in order to get a true feel for the game. This is not the same as playing uncritically or without curiosity. Once the game has become known, and has hopefully been enjoyed, a more analytical stance can be taken.

Using ones own playing as the means of access to a computer game situates the researcher in the position that scholars of the arts have always found themselves in, namely that their analysis will be based on the product of their own idiosyncratic reading, or in this case, playing. This position, I will claim, is not more problematic than using the play of others as the empirical foundation. In the words of Diane Carr:

> "[…] theorizing the pleasures of play raises a methodological conundrum. If analysts refuse to shed their critical distance, their experience of the game will remain partial. Yet, relying on other approaches, such as the observation of players, or the interviewing of players after a game session, will not resolve this dilemma.

> All account of gameplay are partial or reductive, because the process of documenting or articulating any lived experience is inevitably selective." (Carr, 2006b, p. 57)

Like Carr, I see no easy way around the need for involvement. Accepting the inevitability of this engagement, I believe, may turn it into a point of strength rather than a problem. While including the playing of others as part of the material to be analysed may provide the basis for a more saturated description, these accounts are not necessarily more or less transparent to the researcher than her own playing. Both are equally problematic; both require reflexivity on the part of the researcher.

Reflecting upon her role as a player and how this may affect the analysis, Aarseth (2003) proposes the researcher should use game designer Richard Bartle's (1996) player types; a conceptualising of MUD users according to the motivations that drive them. Depending on the core motivation, Bartle distinguishes between killer, socialiser, achiever, and explorer. Using Bartle's player types as a tool for reflection is problematic in several ways, however. For instance, there seems to be an expressive-creative category missing, although it may to some degree be contained in the explorer. Likewise, the types are based on Bartle's experiences with MUDs and cannot, despite Aarseth's suggestion, be directly transferred to, for instance, single-player games. Both the killer and socialiser types only make sense in a setting where humans interact with each other. The killers are not characterised by wanting to kill, but by getting "their kicks by imposing themselves on others" whether by helping or wanting to fight (Bartle, 1996). Killing or helping NPCs in a single-player game is merely achievement, it has no social dimension.

Bartle's observations can be compared to the findings of Yee (2007) based on his empirical study of MMO players' motivations. Although he is able to identify ten motivational factors based on the data, Yee stresses that rather than seeing players as fitting only one motivational type it is more correct to regard the individual's motivation as comprised of several different factors. For instance, a player who sees achievement as important may also be highly motivated by a social component. This is a valuable insight which underlines that we rarely play games for one reason only and may, indeed, play different games for different reasons. Likewise, does the researcher play differently when doing it for analytical purposes than for pure recreation, and is one approach better than the other? Personally, I am of the opinion that a computer game should always be played for fun first. Once the game has been played through or the researcher has properly familiarised herself with the game it may be time to be more distanced and investigative. This may included trying out approaches that do not come naturally to the researcher, exploration of various alternatives, and testing the boundaries of the game mechanics; all activities that may be part of recreational gameplay, depending on playing style.

While the researcher should reflect about her playing style and motivation for playing games, categorising it with one or two labels is hardly sufficient. Other things need to be considered, for instance whether some playing styles are being regarded as more appropriate or right than others by the player, peers, the gaming communities, the industry. Moreover, how does the researcher's own ways of playing relate to possible dominant views, and in which ways does either adherence or deviance effect the overall approach? As someone who does not necessarily "play properly" in the face of the "rational player" view, a focus that seems dominant both within the game industry and

amongst many of the games researchers who are mainly interested in the game, I know what it is like to be excluded by general remarks about what players do. However, if someone fits into that view in terms of playing style it may not even be visible to them because it is simply naturalised. Sylvia Lammes expresses similar concerns in a direct comment on Aarseth's proposed methodology and suggests that reflexivity should include a notion of situatedness in order to assure that "game culture is viewed as a local and embodied social practice and to avoid making universal knowledge claims" (2007, p. 29). One way to make sense of the differences between what Lammes and Aarseth demand of their methodologies is to see it as a clinch between disciplines. One aimed at the game object and the other focused on the socio-cultural issues surrounding computer games. It seems to me, however, that an underlying difference may be epistemological. One approach is aimed towards generating "objective" and generalisable results, whereas the other embraces subjectivity as inescapable. Whether one chooses one position or the other, the problem of the player must be addressed. I suggest it may be done in at least two ways: either by using an analytical construct such as the notion of the implied player or by embracing subjectivity and the richness of details, emotions, and experiences that this may offer.

The implied player

The notion of the implied player is borrowed from literary theory and has been brought up several times in relation to computer games (Aarseth, 1997, 2007; Carr, 2006a). Neither Aarseth nor Diane Carr expand much on the concept, which is based on Wolfgang Iser's (1980) "implied reader". The term does not refer to an actual reader, whose reading will always be subjective and based on the individual's previous

experience (Iser, 1980, pp. 24, 25). It is rather a construct, a position produced by the text:

> "If, then, we are to try and understand the effects caused and the responses elicited by literary works, we must allow for the reader's presence without in any way predetermining his character or his historical situation. We may call him, for want of a better term, the implied reader. He embodies all those predispositions necessary for a literary work to exercise its effect – predispositions laid down, not by an empirical outside reality, but by the text itself. Consequently, the implied reader as a concept has his roots firmly planted in the structure of the text; he is a construct and in no way to be identified with any real reader." (Iser, 1980, p. 34)

Print literary texts provide structures and devices that require certain knowledge and competences to be made sense of in a reading. As discussed in the third chapter, computer games, likewise, are made sense of by players and, moreover, acted upon within the possibility space fashioned by the game's affordances and constraints (Gibson, 1986; Norman, 1998). These conditions create a position, in some cases even several positions, which calls for a certain kind of player to fill it. This is the implied player, the analytical construct extrapolated from the situations created by the game. Thus, the implied player of *Tetris* answers the challenge of that game. The position crated by that particular game implies a want to continue as long as possible, ability to use the controls as well as turn the blocks optimally. In the case of a more complex game such as *Civilization* several implied positions with each their strategic repertoire are created. Note that while the implied player of simple and highly regulated games typically is a player who strives to win and maximise her score, the implied player of more open and complex games, such as many computer role playing games, is a more ambiguous figure – or rather figures. As seen in the previous chapter, such games offer a variety of implied positions for the player to fill, and these do not necessarily include

the want to win, or in this case, to come to the end of the game. Thus, the analytical construct should be applied carefully in relation to such games.

It is important to underline the difference between the implied player and the notion of a model/ideal player (Iser, 1980, pp. 27-38). The latter is the player as imagined by the designers of a game. In most cases this will be a more narrow position than the one created by the game, limited as it is by the creator's intentions. The concept of implied player is useful for analyses that focus more on the properties of the game than on a particular experience of playing that game. It should be stressed, however, that the notion is not a shortcut to an account purged of subjective influence. While it allows a bracketing of the personal in order to focus on the "functionality of the text", the analysis still depends on a particular reading, that is, an individual's interpretations (Wilson, 1981). As will be discussed in the following chapter this freedom to interpret is much more limited in relation to a computer game than in the case of a literary text. This is because interpretations related to game mechanisms are evaluated by the game engine when they are put into effect by a player. The game, then, has the authority to reject some interpretations, while accepting others, not based on intuition or necessarily logic but on the predefined parameters set out by its designers. Just think of the typical adventure game, where players in frustration sometimes end up combining inventory items at random in order to determine, through trial and error, the right combination. The more regulated a given game is, the less room is left for valid variations in players' interpretations.

Embracing subjectivity

While the notion of the implied player may be useful for the researcher who is more interested in the structural and functional properties of a game than the various experiences it may give rise to, one can also choose to focus on the second, embracing subjectivity. Here the researcher not only acknowledges her situatedness as advocated by Lammes (2007), but even uses herself as an identified and active referent during the analysis. Computer games, like other cultural products, evoke emotions and memories, instigate chains of associations, stimulate creativity and imagination in the individuals involved with them. All these experiences may well be important elements of playing a given computer game, but they are not easily accounted for with an objectivist jargon. If the goal, along the line of classical humanities disciplines, is to gain understanding and new insights about the object of study, the more subjective approach may offer an advantage. Here the researcher has access to the richness of her own motivations, emotions and background stories which may be used to create a more saturated and contextualised account of the game in question. Barry Atkins' playing and reading of *Close Combat II* (1997) is a prime example of how his personal engagement sets the agenda and informs his analysis of "realistic" Second World War simulation games (Atkins, 1997, cha. 4). Likewise, I doubt it is possible to produce a complete analysiz of a highly ambiguous computer game such as *Manhunt* (2003) without letting the player-researcher explore the feelings that playing elicits in an individual as Matteo Bittanti (2005) has done it in his analysis of the game.

It should be stressed that I do not mean to imply that the researcher's own playing is somehow transparent to her; that would be a naïve notion. However, the advantage of placing oneself in this position is that the "lofty and disinterested imagined subjectivity

of the academic" is not easily upheld there (Hills, 2002, p. 54). The researcher's active and personal engagement precisely calls for explicit reflexivity concerning the double role as both detached observer and engaged individual, demonstrating the impossibility of the former. Obviously, the results of a highly subjective analysis may not be suitable for generalisation. As long as the researcher is aware of this and does not make any sweeping claims, I find that the advantages outweigh the dangers.

The player that is me

Before closing this chapter I want to move from general methodological considerations to reflections about my own playing. I will begin by emphasising that I play computer games for various reasons, depending on my mood, and that this also has bearing on the particular approach I take. It seems to me that computer game play serves three different functions for me. I seek diversion, investment and engrossment in a procedural fiction, or, what I will call, "easy creative expression". I should add a last occasion, which is a mixture of several that are all characterised by my playing of games that do not necessarily appeal much to me personally. That is when I play for social purposes or when I play games which I feel I have to know about in my capacity as a games researcher. These games are usually higher in requirements of good eye-hand coordination and fast reactions, than what I would otherwise chose.

When I play for diversion purposes, I seek distraction but also the meditative state induced by repetition. The repertoire in those cases is exclusively the small games packaged with windows or, more rarely, *Tetris*. Here the smoothness of the experience is of main importance as I engage with the randomly arranged states again and again. I am not sure I even play to be challenged in those cases, at least not always.

Another kind of engrossment I seek from computer games is that of investing and losing myself into another world, not unlike what I seek from other works of fiction.[6] The games I play in that case are mainly computer role playing games, including massive multiplayer online games, but also adventure games, and to a lesser degree simple strategy games such as *Civilization* (2005) or *Black and White* (2001). Here curiosity is my main drive, both in terms of the spectacles offered in the simulated environment, in relation to plot developments, and also to how game mechanics function. I want to progress in order to see, explore, and, eventually, reach closure. There is a sense of achievement contained in that, the achievement of developing and understanding more. Still, achievement in itself is not the main motivator for me. That is also why my threshold for replaying demanding sequences or solving trial and error puzzles is not particularly high. In those cases I do not mind "cheating" by looking up a solution or a strategy. If a certain passage requires speed and precision exceeding my skills I may even abandon the game after a few attempts at making it through. The difficulties related to fast reactions and precise aim-taking I am willing to go through are proportional with the degree to which the simulated world and characters manage to raise and hold my interest. My desire for progress also often shows as a disinclination to read very long passages of text, be they dialogue or in-game texts of various kinds. While the lore of a game world normally interests me I am not necessarily interested in all its written fictions within the fiction.

My last reason for playing computer games is to engage in, what I will call, "easy creative expression" and my game of choice here is *The Sims 2*. The notion of easiness

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[6] I discuss the relation between computer games and fiction in the next chapter.

here refers to the activity being less demanding of original thought than writing a poem or creating a good work of art. It does not mean that creating with *The Sims 2* may not be both time consuming as demanding in terms of skills. However, the possibilities for creative expression available with the game range from combination of existing objects, over house building, to creation of videos and stories based on gameplay, as well as different degrees of modding. Central here is pleasurable tension between the availability of functions and their limits. This part of my computer game play is also the most social. I may well fiddle with the game alone in front of the computer, but a great part of my playing includes sharing creations with the simming community and being active at various internet for a dedicated to the game.

It seems clear that my research focus to a great degree stems from my inclinations as a player. Bearing in mind much of the theory focusing on the computer game "in itself" seems informed by a, rarely outspoken, "rational player" paradigm, I have felt a need to give voice to the less represented players, including myself. In this regard my research can be seen as highly partial. On the other hand, anyone who, for instance, adheres to a (implicit) rational player model is not less so, although the more dominant position of this view tends to render it invisible. In this light, I feel the need to stress that I do not see the kind of playing I engage in as particularly subversive or exotic, since my activities are always facilitated and easily contained by the structures and functions provided by the game. On the other hand, I am not on a mission to emphasise one kind of playing or a specific type of computer games as better than others. Instead, I want to acknowledge that different computer games serve different playing needs, and players come in many varieties. While my playing, and that of others who have similar but not identical inclinations, may not be representative for the majority of computer

game players, it is not less acceptable.[7] In fact, it may provide a broader and, at the same time, more holistic focus.

Bridging the gap

Between the formalist engagement with games as systems and the studies of actual players' practices and cultures there is gap that can be bridged by an approach which explicitly acknowledges the intertwined nature of the player-game relation. In order to mature computer games research generally, there is a need to move away from the notion of an abstracted, universal player and more clearly signal what is meant by the term in various contexts. Here the construct of the implied player as well as a more subjective approach have been discussed. The choice of method, clearly, depends on the questions the individual analysis seeks to answer and the level of generality sought.

Employing the notion of the implied player may seem the more scientific sound approach, since this type of analysis treats the player as a more or less objectively given construct derived from the computer game's structure and demands. However, even that construct is based on the computer game as experienced by one or more actual players and their experience of the game in question. Hence, the more complex and less regulated a game is, the greater the difficulties of deriving one stable implied player are likely to be. While the more subjectively based analysis will be influenced by personal history and inclinations it offers the researcher the freedom to dive deeply into the richness of the experience. The result will be less generaliseable and the researcher, of

[7] I do not have accurate knowledge about what the majority of computer game players may want, and leave that for others to consider.

course, needs to be aware of that. However, this is not necessarily problematic if understanding a given game and some of its uses is the aim rather than construction of a general theory of computer games. Moreover, interesting and useful concepts that can carry over into theory building may still emerge from such an endeavour.

3. Meanings of a game

> "To an external observer, the sequence of signs produced by both the film and the simulation could look exactly the same. This is what many supporters of the narrative paradigm fail to understand: their semiotic sequences might be identical, but simulation cannot be understood just through its output. This is absolutely evident to anybody who played a game: the feeling of playing soccer cannot be compared to the one of watching a match." (Frasca, 2003)

Now that the previous chapters have established a general foundation for thinking about games, it is time to more specifically discuss computer games and their particular mode of being. One conceptualisation of computer games that has crystallised from the recent years' theoretical discussions is the notion of their dual nature. Terry Harpold pronounces it an axiom of game studies that gameplay "is the expression of combinations of definite semiotic elements in specific relation to equally definite technical elements" (Harpold, 2007). This notion appears in a number of subtly varied versions but the shared focus is the conception of, on the one hand, a definition and processing layer and, on the other hand, an expression layer. While there is often an implicit understanding that the two types of elements are clearly distinguishable, it should be stressed that they are rarely presented as pure dichotomies. (Aarseth, 1997, 2005; Alexandersson, Linderoth & Lindström, 2004; Bennersted & Linderoth, 2007; Günzel, 2008; Harpold, 2007; Juul, 2005)

Taking a central conceptualisation of computer games as a starting point, the aim for this chapter is to presents a theoretical foundation for a holistic approach to computer games that takes both their instrumental and textual aspects into account. The approach is quite pragmatic in that the main intention is to lay the ground for analysis rather than enter into an exhaustive discussion of the constituting elements of computer

games. Note also that although digital games are treated at large here because it is a general discussion, a holistic approach may not necessarily be fruitful in relation to all kinds of digital games. This is hopefully made clear in the discussions throughout this chapter. Moving beyond the very general, the sheer diversity of computer games ought to encourage game researchers to be weary of making broad claims about their nature as if it were singular and somehow established once and for all. It is certainly not my intention to do that.

First the conceptualisation of digital games as having a process and expression layer is discussed. Then a means of distinguishing between digital games that invite a highly instrumental engagement and those that offer other modes of engagement, too, is suggested. Following that, I present my approach, namely the notion of digital games as having two interrelated meaning layers, the mechanistic and the thematic. Various aspects of the thematic meaning dimension will then be considered.

Material foundations

Despite its origin in literary studies, Espen Aarseth's *Cybertext: Perspectives on Ergodic Literature* (1997) had a tremendous influence on game studies and still serves as a starting point for those who focus mainly on the game. In this work Aarseth discusses the materiality of ergodic literature; processual texts executed digitally, mechanically or manually. Cybertexts, according to Aarseth, "exist on two" levels (1997, p. 42). One contains mechanisms to execute procedures while the other is the surface level where the underlying processes are made available for scrutiny. This fundamental distinction is based on unspecified material conditions; the processing unit

may be electronic, mechanic or of flesh and blood and the output, likewise, may be mediated in different ways.

A central point for Aarseth is the close connection and dependency between the mechanic and semiotic layer. The former can only be experienced through the latter, while the latter derives its meaning not only from the signs themselves but also from their instrumental value at the system level. The relation is, moreover, arbitrary in that there is no predefined correspondence between a certain mechanism and its output format:

> "To complicate matters, two different code objects might produce virtually the same expression object, and two different expression objects might result from the same code object under virtually identical circumstances." (Aarseth, 1997, p.40)

The processes taking place in the execution of the cybertext may find many different expressions at the surface level, and the instrumentality of mechanisms endow the signs with additional meaning apart from the purely visible. Consequently, Aarseth also in later work advocates that game researchers *play* games rather than merely watch the surface signs of others' play because it is the best way to fully become aware of the underling processes involved (Aarseth, 2003).

Depending on the purpose of use, it may either be considered a strength or a weakness that Aarseth's model purposely ignores any effects of various medialities, stressing the formal similarity between manipulating physical sticks and bits of paper in the use of *I Ching* with the computer mediated manipulation of, for instance, a simulated gun in computer games. While formally both can be described as processes involving users that co-produce mediated output, the machinations and mediations are highly different both experientially and in terms of their affordances and constraints

(Gibson, 1986; Norman, 1998). This may not be a problem in Aarseth's case since his aim is to construct formal categories, thus placing a foundation for others to build on. However, if the aim, as in this case, is to analyse the particulars of engaging with specific games, mediality may well be one of the important factors.

Taking a similar starting point as Aarseth, the fundamental material conditions, Harpold (2007) points to the particular mediality of PC games from a certain era as a central characteristic of these games. His “Screw the Grue” focuses on the entanglement between the technical and semiotic dimensions of PC games from the 1980ies. Consequently, his focus is not on the limitations of narrative, fiction or, even, representation in general in relation to rules and game mechanisms. Rather, he sees any shortcomings of computer games foremost as technical in his examination of how the limits of PC hardware and software are transformed into meaningful ludic and semiotic expressions in games. One example of such a workaround is taken from Infocom’s text adventure *Zork: The Great Underground Empire* (1980). Harpold indicates the fearsome grue, a creature that may lurk in all unlit passages just waiting for an adventurer to devour, as a conscious device for restricting players’ possibility space – and by extension the lines of code that must be processed – in a nonintrusive way. Analysing other examples, Harpold shows how the more or less coherent diegetic spaces constructed in these games, rather than being a restraining element in terms of gameplay, are used precisely to distract from or disguise technical inadequacies. (Harpold, 2007) He concludes:

> “[…] simulation would no longer be mistaken for a process in which mediality is irrelevant to play […]. Instead, it could be understood as the game’s moment-to-moment recapture of its technical elements, its way of seeming (for the player) to absolve itself of that contribution to the basic contingency of mediality. Narration is one of the primary operations by which this absolution is achieved within the

> semiotic plane of play, but it is not (as the ludologists have shown) exhaustive of a game's expressivity; extra-narrative elements (mimesis, performance) may also come into force. Recapture opportunistically binds each to the technical plane of play and thereby to the others." (Harpold, 2007)

What Harpold seems to say here is that the mediality of computer games of various kinds should be taken into consideration because the particular material foundations of a given computer game is a defining factor for both mechanic and expressive aspects, and that the two work together (or are in conflict depending on the design) all the time in order to hide, enhance, or work around material limitations. A good example of how different material conditions also result in slightly different products are the differences between a game created for PC, consoles or handheld devices. Each of these platforms have their own requirements, limitations and strengths that result in differences between versions of the same game, even to the degree that this is often remarked upon in reviews.

Rules and fiction

Jesper Juul's *Half Real* (2005) is another influential work for game studies; in many ways the games only heir to *Cybertext*. Where Aarseth makes a general distinction between processing unit and output, Juul's apparently similar distinction is only directed at games. The distinction, however, is not based on material conditions but on the perceived formal differences between rules and fiction, elements that are particular subsets of mechanics and expression respectively rather than identical with those. It is not clear whether Juul makes this distinction, however.

Juul describes rules as being both limitations and affordances characterised by finiteness, definiteness and resulting in input and output when being applied. In that,

Juul points out, rules are just like algorithms. (Juul, 2005, pp. 61-64) While rules, as already remarked upon earlier in relation to Malaby's work, are reworked, transgressed and negotiated all the time in human practice, Juul here discusses an ideal, formal version which is, furthermore, enforced by a machine and not always easily accessible for modification. Computer game rules in their functioning are very similar to other types of digital processes which makes it easy to just collapse Aarseth's notion of mechanisms with Juul's notion of rules. There is a slight difference however, in that the former governs everything that is expressed also the element that Juul designates as fiction.

This notion of fiction, according to Juul, refers to the worlds simulated by computer games which "do not actually exist" (Juul, 2005, p. 121). One aspect of fiction in Juul's account, then, is that it is made up. Other passages indicate that those representational elements that have no bearing on gameplay make up the fiction of the game:

> "There is generally a clear-cut split between the fiction and rules of a game: The rules of chess govern the movement of pieces; the representation fiction of chess is the shape and colour of the pieces. No matter how the pieces are shaped, the rules, gameplay, and strategies remain identical." (Juul, 2005, p. 57)

The writing in the above passage is rather unclear: Is a game's fiction equal to its representation in general or to particular aspects of that representation? Considering the example of chess, the shape and colour of the pieces *is* central to the functioning of that game, for instance. Not because colours and shapes in themselves are important for chess, but because it is paramount that the pieces be distinguishable from each other – just like in any other signifying system. If the individual pieces or the two teams cannot be told apart they lose their relevance and become useless for playing. Probably, what

Juul means to say is that the pieces can be *styled* in many different ways without changing the game and that this styling is the fiction of that game. If the notion of fiction refers to the particular way a game is styled this concept cannot be interchanged with Aarseth's notion of the semiotic layer, the first is rather a subset of the latter. Although I agree with Juul that game studies needs terms that refer to that part of a computer game's expressive side which I, for now, will term its theme I am not sure the notion of fiction is the most suitable. Chess, for instance, is these days rarely seen as the fictive re-enactment of two clashing kingdoms it may have been decades past. Rather, the game is an institution unto itself, referring mainly to itself rather than to external fictions. The question of reference is an interesting one that I will return to shortly.

Juul shifts between claiming a "clear-cut split between fiction and rules" (Juul, 2005, p. 57) on one hand, and that the two are "complementary but not symmetrical" (Juul, 2005, p. 121) on the other. The lack of coherent use of terms is one problem with *Half Real*. Moreover, the rules and fiction pair is neither aptly named nor fine grained enough to account for the many different elements that together comprise computer games. For instance, many computer games at the same time contain elements internal and external to the projected "world" as well as elements crucial for goal-oriented, instrumental play and those that are less so. Crucial gameplay elements can both be found as inherent elements of the projected environment and as external to it or even both. Movement from location to location in *Oblivion* (2006), for instance, may either be conducted within the "world" with the player character moving through the terrain on foot or horseback. Or if a location has been visited previously, the map may be used as a short-cut link, taking the player character directly to the desired destination. NPC

dialogues, on the other hand, are presented as internal to *Oblivion*'s world, while saving and loading games is an activity external to it.

Moreover, although Juul acknowledges that rules are often emphasised and explained at the fictional level (Juul, 2005, pp. 176-177), the pair still seems to stress a simplistic understanding of game elements as *either or* while, in fact, elements will often belong to several categories at the same time. Quests in computer role playing games, for instance, are often given via NPC dialogue. This dialogue is an event at the fictional level but also presents the player with rules that typically specify some requirements and their rewards.

The primacy of mechanics?

Although Juul acknowledges that a computer game's style – or in his words its fiction – is an important experiential factor, the primacy of rules over fiction is stressed and naturalised in *Half Real*. Fiction is fiction, that is, made up, while rules are described as real.[8] Juul also stresses that it is possible to talk about game rules without invoking fiction, but not the other way round. The naturalisation of this view is even more poignant in an article on the application of ecological theory to computer games by Ulrika Bennerstedt and Jonas Linderoth (Bennerstedt & Linderoth, 2007). Analysing studies of children playing computer games, the authors stress the involved children's tendency to look primarily for affordances while disregarding the representational level

8 I have always wondered at this statement. While the rules of computer games create "real" events like someone winning or losing, they are just as constructed as fiction is.

of the games. Building competencies as a gamer, they argue, is all about tuning into the little details, the small differences in an act of differentiation:

> "This is a process of discrimination where the gamer learns to make more and more complex distinctions in her/his perceptual field. The gamers' perception is shaped through the gaming practice so she/he develops a form of p*rofessional vision*." (Bennerstedt & Linderoth, 2007, p. 608)

They contrast this type of learning with notions of learning as enrichment; an understanding of learning as a process that involves the adjustment of new stimuli to already existing mental schemata. Although players of educational games are often supposed to learn something about the subject matter depicted in the game, thus enriching their existing schemata, this is not what happens according to Bennerstedt and Linderoth's analyses. Instead, the children in the study learn the game and its mechanics, easily going through a whole game session without referring to the game's representational dimension:

> "To develop professional vision as a gamer is therefore a process where the represented phenomena in the game are very likely to become more and more peripheral for the gamer as her/his skills in the game increases." (Bennerstedt & Linderoth, 2007, p. 608)

While it is outside the scope of this thesis to assess different theories of perceptual learning, I will grant that the differentiation model seems plausible, at least for the type of instrumental adaptation that is required for players to win a game or optimise their score. Gibson and Gibson seem to suggest that several modes of learning may supplement each other, however (Gibson & Gibson, 1955, p 40). Clearly, if a game design does not encourage engagement with its representational layer, this aspect of the game may be disregarded. However, the relation between mechanisms and expression layer as described by Bennersted and Linderoth is not naturally given but rather a result

of particular design choices. In the next chapter I will give some examples of game design that not only encourages players to use the surface signs as a resource in their playing, but even offers this aspect as the main reference for decision making.

Thinking about instability

While it is unlikely that anyone will question the difference between watching other people playing, for instance, Monopoly and playing themselves, the strong resemblance of contemporary computer games' expressive side and that of other media forms such as film may lead non-players to think that what you see is what you get. Describing the conditions for this distinction is, indeed, one of the central themes in *Half Real* but as noted above Juul fails to come up with precise terms free of preconceived, more or less ill fitting, notions from other fields. One promising approach however, which seems to steer free of old baggage is Leino's notion of undeniable and deniable game content:

> "In games there are meanings the player can deny without decreasing his possibilities to act in the game. There are also some, which cannot be denied without such consequences. The shape of Bismarck's moustache in the strategy game *civilization IV* (2006) is among the deniable meanings, whereas the importance of defending one's cities in the same game is not." (2007, p. 116)

In his approach, Leino views the game as a structure that continually makes demands on players who can either do as required or be barred from playing further. This approach is refreshing because it does not predefine what types of elements may be deniable or undeniable. Instead this is determined from game to game. Discussing different versions of *Tetris* (1984) that have been spiced up with erotic imagery, Leino demonstrates how what Juul tends to call the game's fiction is sometimes an undeniable element if closely

integrated with game mechanisms, while in another design this aspect remains purely decorative and, hence, deniable. (Leino, 2007)

Leino's approach may certainly be used as the foundation for distilling a game into its essential elements, leaving only those that are crucial for the player's progress in the structure. While this may have its uses, it will only leave us with a limited and general understanding of what computer games are and what it means to play them. Another use for the concept is as an approach the *fixity* of a given computer game.

The ludic, configuration-requiring dimension makes computer games at once more stable and unstable than, for instance, print literature and film. In terms of their representational aspects print and filmic fiction are certainly quite fixed, offering the same sequences and viewpoints to everyone at every use. In comparison, computer games are typically to a much higher degree determined by players' activities. Even simple games such as *Tetris* may produce an incredible number of individual variations.

When it comes to interpretation of meaning, however, the individual reader and viewer has more freedom to construct her reading than the players of most computer games. The reader-response theoretician Wolfgang Iser describes the reader's freedom in interpreting the literary work:

> "And who is to decide on the ideality of the standard, the objectivity of the embodiment, or the adequacy of the interpretation? The natural reply would be the critic, but he, too, is a reader, and all his judgements are based on his reading." (Iser, 1980, p. 24)

While players may have a similar freedom in relation to aspects of the game's representation, it certainly does not apply to the game mechanisms in quite the same

way. As discussed in the previous chapter, the computer game available for analysis is a process that becomes actualized in an exchange between a player and the game software/hardware. The degree to which this process will be more or less similar from playing to playing can be approached using Leino's two variables. Some games contain mainly undeniable elements, leading to a high degree of fixity, whereas others leave the player great configurative freedom even within the game contract, the implied agreement that winning is a good outcome and losing not (Juul, 2003). The notion of fixity, then, refers to certain aspects of a computer game's complexity, namely the degree to which a given game allows a variety of playing styles, outcomes, ludic and thematic interpretations. It is a measure of redundancy, of how tightly composed and controlled by its makers the game is. Since complexity may refer to a number of game features, there is a need for a more specific term that addresses precisely this aspect.

As already discussed, in many cases the player who wants to do well or even just continue playing must read and play the game the way its creators intended. A *Halo: Combat Evolved* (2001) player, for instance, who tries to parley with the opponents instead of annihilating them, will not be playing for long because the *kill or get killed* element is not disputable; a certain fixity is evident with regards to how hostile NPCs can be approached in this and, indeed, most computer games. *Tetris* is a classic example of a high fixity game. The goal and rules are simple and the options for action are limited to a minimum. Within this narrow frame a player still needs to configure and interpret the changing games states, but neither in terms of the possibility space available to players nor in terms of textual output does the game provide scope for any *non-trivial* individual differences. Many computer games, however, are much more complex than this. A computer role playing game such as *Baldur's Gate* (1998) offers a

variety of choices regarding, for instance, the player character and her party, available playing styles, the sequence in which to do many things within a still somewhat fixed overall structure consisting of core rules, winning condition, and an overarching plot (Carr, 2006a, pp. 51-51). At the farthest end of the continuum of low fixity games are sandbox games such as *The Sims* (2000), *Sim City* (1989) and the like where players are left to set their own goals and have great freedom to modify the game according to their likes. Consequently, it is easy to bracket the actual *Tetris* player, substituting her with an ideal player entity. Whereas due to the many possible variations, actual players and their choices are likely to feature more prominently in an analysis of *Baldur's Gate* not to mention *The Sims 2* (2004) unless a conscious choice is taken to use an analytical construct such as the implied player discussed in the previous chapter. Coincidently, the potential for paida engagement will increase the lower the fixity of a given game, since that kind of activity thrives better when regulation is not too tight.

Configuration and interpretation

Now I will move on to presenting my approach to computer games. While I still find the notion of mechanisms and expressive layer useful, I will follow Harpold in focusing on the interrelations between the two instead of concentrating on their alleged irreconcilabilities as do, for instance, Aarseth and Juul. This is not an attempt to obliterate the tensions that may be between processing layer and expression. However, instead of seeing potential tensions as inherent characteristics of the respective layers and natural givens, I will suggest – and in the next chapter even demonstrate – that they to some degree are features of particular design choices.

It is generally agreed that the conscious human player's relation to a computer game she plays is configurative to some degree or other (Aarseth, 1997; Dovey & Kennedy, 2006; Eskelinen, 2004; Moulthrop, 2004). That is, players are actively engaged, inputting feedback, making choices and influencing the process which the computer game gives rise to. The centrality of configuration is often seen as a characteristic that sets computer games and other interactive media apart from analogue cultural forms. Markku Eskelinen, for instance, states:

> "To generalize: in art we might have to configure in order to be able to interpret, whereas in games we have to interpret in order to be able to configure [...]" (Eskelinen, 2004, p. 38).

While Eskelinen does not dismiss interpretation, he seems to stress it as a secondary activity; as merely a means to the configurative end. However, although computer games often require very visible and intense physical and mental engagement, this activity still rests solidly on an interpretive ground. That is, players continually have to *make meaning* out of the game as it unfolds before them. An ordered and purely constructed setting, such as a computer game, is normally created to continually give cues to players about proper actions. Players who act without understanding are less likely to meet the criteria of success they are presented with. This is the case even with simple games like *Tetris*. If the player places the falling blocks at random the game is likely to terminate quickly; configuration alone does not do it. Instead, the player has to continually understand the meaning of each falling block in relation to the current state of the game; how it can be turned, where it might fit, etc. Crucially, this is an instrumental rather than a cultural interpretation.

Bennersted and Linderoth, as already touched upon, apply the notion of differentiation adapted from ecological theory to the mental activity of players:

> "Images on the screen in a computer game might have structural similarities with the things they depict but it is not the similarities but the differences that the gamer becomes attuned to; the differences that contain information for the affordances in the situation, variations in the optic array saying that this virtual crate affords exploding and this one does not. This is something very different from seeing a real crate which has a completely different set of affordances." (Bennerstedt & Linderoth, 2007, p. 608)

Atkins along the same lines, but without any references to ecological theory, identifies the represented and interactable space of platform games as something that must be interpreted in terms of possible moves (Atkins, 2007, p. 238). Moreover, Mary Ann Buckles (1985) in her analysis of the interactive fiction game *Adventure* (1977) suggests that the pleasure of use to a great degree stems from the demand on players to come to terms with the hidden meaning and functionality of the various objects to be found in the cave. When making sense of computer games, players have to rely both on prior knowledge of similar phenomena in the actual world, in other games and in fiction as well as make imaginative and conceptual leaps. Within the ludic frame events, characters and objects must be interpreted in terms of their instrumental functionality, while the representational layer at the same time may give rise to cultural interpretations. Important here is that interpretation or meaning making – which ever form it takes – is an integral part of configuration. In the act of playing it simply does not make sense to see one as subordinate to the other because they come as a pair. Instead, one way to understand game playing is to see it as an ongoing meaning making and execution process where players have to handle several meaning layers at once (Bateson, 1985; Linderoth, 2008).

Two dimensions of meaning

I suggest that one way to understand the dual nature of computer games is to see them as structures that invite interpretation and configuration at two different levels; the ludic and the thematic.[9] The ludic dimension of the game is the state machine with its objectives, legal and illegal actions, points, and measurements of success. Important when engaging with this meaning dimension is what kind of actions yield the best results in relation to the objectives presented by the game. Here the meaning of the game is typically dictated by the game in its enforcement of goals and success criteria. A certain interpretation, so to speak, is forced on the player if she wants to succeed playing the game, although depending on the degree of fixity players may have a higher or lesser degree of freedom in setting their own goals and criteria of success. Interestingly, this meaning layer is dependent on the audiovisual and tactile feedback from screen, speaker and other devices because this is where game mechanisms are mediated and made available for scrutiny. If the game requires players to pop virtual balloons with a virtual gun, they need to see the balloons in order to aim. Imagine that instead of balloons players were asked to shoot big-eyed puppies. While this may change the game for those who love big-eyed puppies, the ludic meaning of the game has not changed at all. The goal and mechanisms for attaining success are still the same. An important characteristic of the ludic meaning, then, is that in this dimension the game's representation cannot be taken to immediately mean what it seems to mean in the general cultural context. It must instead be interpreted in terms of rules, objectives

9 I owe the inspiration for the latter term to Juul's *Half Real* (2005) where he uses the the notion of theme in relation to his discussions of fiction.

and success criteria. Bateson (1985, pp. 132-133) famously reminds us that the playing primates establish a meta-communicative frame within which the nip refers to a real bite although it is precisely not a bite-for-real. This meta-communicative framing does not eliminate the need for interpretation; on the contrary it requires skilfulness at moving between multiple and, at times, conflicting frames of reference (Linderoth, 2008).

The second meaning dimension of computer games, the thematic, refers to the game as text that is interpreted within the frame of everyday cultural significance. It is at this level that the game may – or may not – be designed to deliver story fragments. Here the question is how events, characters and environments are described both in terms of representation but also with regards to their functional characteristics. The fact that Princess Peach is only allowed passive or manipulative means of action, such as crying, does at this meaning level carry cultural significance, playing into notions of women as the weaker sex. When suggesting that computer games should be analysed in terms of the values they promote, Consalvo and Dutton (2006) refer to the thematic dimension, since the cultural values we may attach to various signs are not relevant at the ludic level where the only relevant factors is who wins the game by how much.

Computer games can be created with a more or less rich thematic dimension. As already discussed, many games with a high fixity are created without much attention to the thematic aspect at all. For other computer games the atmosphere and features provided by the thematic dimension are central for the experience of the game. Where the ludic dimension is typically highly instrumental and limited by formal rules and clear success criteria, the playful potential of the thematic dimension is free-form and less determined. While talented players may express individual style even within the narrow confines of the strictly ludic, for instance in their handling of strategy or fighting

games, the thematic dimension often offers players more freedom to construct, imagine and otherwise express themselves. One example of this is the imaginative and very personal playing of *Morrowind* (2002) chronicled by the player Arwen.[10] Another, more recent, example is the story of Kev and Alice, a result of Robin Burkinshaw's playing of *The Sims 3* (2009).[11] While games with a less rich thematic dimension may be used, for instance, as bases for machinima, such as the well known example of reds vs. blue,[12] such stories are often more gimmicky and less personal and involved.

It should be added that the notion of ludic and thematic meaning layers is an analytical distinction, which at times can be hard to make because it is not always clear where one ends and the other begins. The pair should certainly not be seen as two mutually exclusive categories. On the contrary, game features will nearly always be found in both because most features with ludic meaning can also be read culturally in some respect or other. Moreover, features may move from one category to the other during gameplay. Consider for example the different types of doors available in many adventure games such as the game *Syberia* (2002). Here, the player relatively early is presented with a street where the player character, Kate, may walk to the left or right, talk with some NPCs as well as try to enter various gates and doors. *Syberia*'s game mechanisms are fairly simple, and although several potential progression nodes may be available at once only one will actually provide means of progress at any given time during this particular state of the game. This, however, the new player does presumably not know. Until otherwise proven, all interaction enabled nodes may be potential

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[10] http://amito.freehostia.com/mw/MW.htm

[11] http://aliceandkev.wordpress.com/

[12] http://redvsblue.com/home.php

progression points. The player is at one faced with doors which lead to areas that are no longer relevant in the progression structure, doors and gates that are not yet but may at one point become interactive, doors that upon closer investigation turn out lead to nowhere at the ludic level, doors that are non-interactable and only painted on as well as doors that lead to new areas, providing progression both at the ludic and thematic level. All of these doors even those that are only painted on, I will claim, play a functional role both at the ludic and thematic level. In *Syberia*, non-interactive and interactive objects are not visually distinguishable, and in the case of text adventures it is a similar situation. In such cases, the differentiation advocated by Bennersted and Linderoth (2007) seems unlikely as a useful interpretive technique. The only way to tell whether a represented object gives access to progress-enabling information, other areas in the game, or new useable objects is to hover over them with the mouse and see if any use icons appear. Hence, in the greater picture of the game, painted on doors work both as potential means of access (until otherwise proven) as well as atmosphere creators (together with the scenery at large). Once investigated, those doors that do not provide means of progression will move from being potentially relevant both at the ludic and thematic level to only being relevant for the latter.

The notion of two meaning layers is not meant to replace the understanding of computer games as having a definition and execution layer as well as a representational layer where the underlying processes are mediated. My approach is still based on and incorporates this description of computer games' material conditions. It is rather a reaction against the collapse of this material distinction with the conceptual distinction made, for instance, by Juul and others. What is stressed in the conceptualisation

suggested here is that neither the ludic or thematic meaning can be restricted to one material dimension only. Rather, both draw on mechanisms and expression alike. This model, also, does not come with preconceived notions of the primacy of one dimension over another or of inherent tensions based on natural and given properties. A computer game can be designed to be more or less goal and competition-oriented, it may have a low or high degree of fixity, there may be conflicts or tensions between the thematic and ludic layer or they may be brilliantly integrated in the game design – there are no givens.

Elements of the thematic

Between the ludic and the thematic dimension, the first is probably the most discussed and theoretically developed within game studies. Aarseth, for instance, has offered useful analytical concepts both in *Cybertext* (1997) and later work (Aarseth & Elverdam, 2005) as has Juul (2002, 2003, 2005) and many others. I will refer to those as I use their concepts in the analyses. With regards to the thematic dimension, it is true that computer games have already been discussed widely, for instance, in terms of fiction, narrativity, or textuality. However, the notion of the thematic as presented here differs from most of such approaches in that the fictionality or narrativity of this layer is not taken for guaranteed. This calls for somewhat different descriptive categories than those typically used. Some of the parameters that may be relevant to describe and discern between in an analysis is the detail level of the simulation, the nature of the projected space, the game's reference to the actual world as well as issues of narrativity.

Setting and paratext

Most computer games project spaces of two or more dimensions. Mainly this effect is achieved through a combination of old artistic techniques such as perspective and overlapping coupled with various options for moving game tokens within the depicted dimensions. That is, computer games in various ways simulate movement and its effects in space and time. As a general term, these projected spaces can be referred to as the game's setting.

Another element of the game, which usually stands clearly apart from the setting, although it may be designed to fit the overall look of the game, are the utility functions. These elements, in a way, surround the game proper, offering different functions such as saving, loading and options for configuring the software. Following Gerard Genette (1997), these could be seen as paratextual elements together with packaging, box art, rule books, introduction movies and screens, etc. It should be noted, though, that the utility functions don't play any role in establishing the game's credibility or status in the same way the latter, something Genette emphasises as a central function of paratext (Genette, 1997). The utility functions are part of the graphical user interface but not necessarily equal to it. Some elements may be designed to be integrated with the setting through descriptions and look and others not, although this clearly differs from game to game.

Computer games' setting may find different expressions ranging from the sketchy as in the case of Solitaire, *Tetris*, *Pong* or *Spacewar* to intricate complexity as in *World of Warcraft*, *The Longest Journey* (1999) or *Morrowind*. The setting for computer games may range from backdrops over environments to worlds, depending on the simulation’s detail richness. Games like digitised solitaire or *Tetris* simulate movement

in space but their *backdrop* is irrelevant for gameplay, it is only a vaguely defined background space mainly characterised by its dimensions and nothing else. It is simply a container for action.

Environments may be found in, for instance, sketchy platform games such as *Super Mario Bros* (1985) or racing games. These environments are more defined than backdrops both in terms of representation and mechanisms. This will include features that may play a direct role for gameplay, for instance gaps that can be jumped over or barriers that will destroy a vehicle upon contact, but also richer and more detailed decorations. On the other hand, the environment is not part of a larger whole. There is no world outside the racing ring and Mario has no life as a character, he is just a vehicle for action.

Worlds are presented as incomplete wholes either in a story setting or as information wholes where many parts interact to form a larger picture. This is the case with any complex strategy or sim games and also many computer role playing games. Even adventure games will mostly feature worlds. These are of a narrative rather than an informational character, though.

While making this distinction in itself may not be imperative to analyses focusing both on the ludic and thematic dimensions of computer games, it is a descriptive marker that is often needed when comparing and describing games. While the thematic meaning of solitaire adapted for computer use, for instance, may be fairly irrelevant to discuss because the digital version of solitaire is a more or less direct reference to the game as played analogously, the thematic dimension of the projected worlds in games like *World of Warcraft* or *Fallout 3* (2008) are interesting in their own right.

Reference relations

Computer games are simulations of processes, whether simple and predetermined or highly complex with emergent properties. Aarseth (2005) suggests that the notion of simulation should, indeed, replace that of fiction in relation to computer games. He argues that only those game objects which have no purpose beyond the merely decorative should be seen as fictional while elements with a simulated function should be described as "virtual" instead. This reduces the fictional elements in computer games to something without function or real relevance. Painted on doors, for instance, are in Aarseth's optic fictional. The problem here is, however, that Aarseth generalise on the basis of a particular genre. Hence, while the painted on doors in games like *Half-Life* (1998) are clearly distinguishable from any doors that may be interactable, this is not necessarily the case with other genres. Above I have already touched upon the typcial function of painted on doors in adventure games. While Aarseth wants the phenomena depicted in games to be *either or*, I will argue that they in many cases are *both and* as already suggested by the notion of the two meaning layers. Hence I want to include the painted on doors in the potential offered by, at least some, computer games.

According to Aarseth, there are three reasons why the notion of fiction is not relevant for computer games. The central problem is that that the gameplay aspect of computer games is not a fiction, players actually win or lose. Other reasons are the problems with defining fiction but also the fact that all computer games cannot be labelled fictions for certain. With the notion of computer games operating with a double meaning layer, I have already presented a solution to the first and most critical problem. In terms of the two other problems, I agree that language is slippery and, hence, rigorous, all-encompassing definitions cannot easily be made about many phenomena in

existence. This, however, just means that carefulness in stating universal truths is required, not that we should avoid thinking about said phenomena altogether. A proper discussion of the various approaches to fiction would easily require a chapter of its own and is not the aim here, but an interesting overview is provided Marie-Laure Ryan (2006, ch. 2) in *Avatars of Story*. In this context fiction, for the sake of simplicity, refers to the make-believe or invented aspect of something.

Although I agree with Aarseth that different computer games have different reference relations to the actual world, clearly many computer games can be defined as fictions in that they feature invented worlds, processes and characters. That is, computer games' simulation may directly reference processes in the actual world or it may simulate similar processes in an imagined world that differs more or less from the actual. In terms of the mathematical side of simulation there is, of course, no difference between simulating gravity in an environment with direct references to the actual world or in an imagined world. The fictionality of computer games, then, is often manifest mainly in the thematic dimension, although features like magic abilities are simulated both at the ludic and the thematic level. It is not my intention here to suggest an exhaustive taxonomy of reference relations, instead I want to briefly point to various possibilities.

The reference relation may be, for instance, i*ndeterminable* as in the case of many computer games with sketchy environments which not directly defy natural laws in the actual world but, on the other hand, do not directly reference actual events and locations, either. The undeterminable reference relation is often due to a sketchy thematic layer, because the focus of the game is mainly on the ludic element. *Counter Strike* (2003) or digital bridge are examples of this. Other games, such as *Rez* (2001),

are simply *abstract* – as in non-figurative – and only make vague references to a context which cannot easily be determined. Then there are the *reconstructions*, games that are created to more or less faithfully reproduce parameters related to specific events or processes. Many learning games will fall into this category as will the polemic simulation of assassination of John F. Kennedy, *JFK: Reloaded* (2004). Some phenomena can be simulated with more accuracy than others, for instance chemical processes or the trajectory of a bullet from a certain location. Historical events, on the other hands, can be interpreted in many ways. Moreover, to the degree where reconstructive computer games offer means of experimentation, which will typically be the reason for simulation in the first place, there is always the potential for counrterfactual outcomes despite the attention to faithful reproduction. Hence, such games will generally occupy an interesting position between the fictive and the factual, something Atkins' discusses in his analysis of *Close Combat* (2003).

It should also be remembered that a mix of faithful reconstruction and more liberal treatment of "facts" may sometimes be a desirable outcome for those who commission computer games with particular agendas. *America's Army* (2002) is an interesting example in this regard. The game is designed with great attention to accuracy in the depiction of, for instance, weaponry, ranks, and army jargon. On the other hand, getting hit as well as dying is expressed in a rather downplayed way with no blood, gory details, screams, or other utterances of pain and fear. Bearing in mind that the game has been created as a recruitment tool, the U.S army may have very good reasons for both choices.

Story

Another distinction we need to make is that between computer games with story-telling ambitions and those without. Taking her cue from Roland Barthes and Claude Bremond, Ryan (2006) stresses the media independent qualities of narrative and that different media possess different qualities in terms of story-telling. Instead of offering a singular definition, Ryan advocates a fuzzy conception of narrative. She lists eight qualities, "a toolkit for do-it-yourself definitions" (Ryan, 2006, p. 9), proposing that the degree of narrativity depends on how many of the conditions are met. The conditions concern the spatial, temporal, mental as well as the formal and pragmatic dimension of narratives:

> "Spatial dimension
> 1. Narrative must be about a world populated by individuated existents.
> Temporal dimension
> 2. This world must be situated in time and undergo significant transformations.
> 3. The transformations must be caused by nonhabitual physical events.
> Mental dimension
> 4. Some of the participants in the events must be intelligent agents who have a mental life and react emotionally to the states of the world.
> 5. Some of the events must be purposeful actions by these agents, motivated by identifiable goals and plans.
> Formal and pragmatic dimension
> 6. The sequence of events must form a unified causal chain and lead to closure.
> 7. The occurrences of at least some of the events must be asserted as facts for the story world.
> 8. The story must communicate something meaningful to the recipient." (Ryan, 2006, p. 8)

This pragmatic approach to narrative seems highly suited for computer games. In the same way that existence as it unfolds around us is not in itself a narrative, the objects and events simulated by computer games are not necessarily intrinsically narrative either, although we can and do tell stories about both. The continuum presented by

Ryan is helpful here. *Tetris* or chess, for instance, may be taken as metaphors for various phenomena in life (Murray, 1997, pp. 143-144), but the two games in their contemporary forms are foremost directed at challenging players through simple, yet combinatorially complex gameplay, their purpose is not to convey interesting stories. Other games such as *The Longest Journey*, *Silent Hill* (1999) or *Bioshock* (2007) have plotlines, story archs and characters (who sometimes develop, sometimes not). While individual uses of the game may turn out many different combinations of elements, at times resulting in different stories, what is shared by these games is that they have been created partly with storytelling in mind.

Since stories in most cases require a certain logic to play out, with some events leading unto others, telling stories via a relative open-ended simulation so that they still remain coherent often puts some restrictions on the ludic layer. Certain characters, for instance, can not be allowed to die before they have fulfilled their function in the greater narrative scheme. At other times some events must happen in order to progress not only the game but the narrative. Just like the ludic dimension can dominate the thematic, the opposite is sometimes true and often storytelling is the cause here. Susana Tosca (2000) in her analysis of the computer game adaptation of *Blade Runner* (1997), for instance discusses how this particular narrative is not allowed to unfold as a good game. Aarseth and Juul are others who have discussed some of the less elegant or nonsensical outcomes of game-story mergers (Aarseth, 1997; Juul, 2004). However, as restraints are a central feature of games, the limitations imposed by story-telling need not be a problem. Instead, they can be skilfully exploited or downplayed in a good design in some of the same ways that software or hardware limitations are masked through ludic

and thematic workarounds in Harpold's examples discussed earlier in this chapter. Game designer Greg Costikyan writes:

> "To get a good story out of a game, you have to constrain gameplay in a way that ensures the story is told through play. There are direct conflicts between the demands of story and the demands of gameplay, because constraints that benefit the story aspect of the game may sometimes make the game aspect less interesting; yet any game is a system of constraints. Players have free action only within those constraints; there are always limitations on behaviour, and indeed, gameplay often emerges precisely because of those limitations." (Costikyan, 2007, p. 6)

While it would be an incredibly interesting study, it is not the intention here to produce an exhaustive overview of various methods employed to make game and story structures work together.[13] In the analyses that are to come this aspect is certainly discussed when relevant in relation to the particular game and analytical theme.

Basis for holistic approaches

Contemporary computer games in most cases are game-mediatext hybrids. A way to conceptualise this is to see the games as being comprised both of a ludic and a thematic dimension. The ludic dimension is concerned with the regulating mechanisms of the game and players are required to understand it in terms of functionality facilitating instrumental action. The thematic dimension, on the other hand, relates to the expressive aspects of the game, and invites a cultural interpretation. While some games may be designed with a ludic dimension that overrules and overpowers the thematic, in other cases the two have been created to compliment each other. The relation between the two is not given beforehand but should be determined on a game to game basis. As a rule of

[13] Costikyan in the article quoted provides an overview over different game-story mergers.

thumb, however, games with a high fixity are more likely to require or allow players to defocus from the thematic dimension, while low fixity games to a greater degree tend to emphasise it.

4. Hybrid synergies

> "Among the many differences between games and stories, one of the most obvious is that of ambiguity. In *Tetris*, I do not stop to ponder what those bricks are really supposed to be made of. In *Doom* there is no moral dilemma resulting from the killing of probably innocent monsters." (Aarseth, 2004)

In the previous chapters the understanding that computer games' thematic dimension is inherently subservient and secondary in relation layer to the ludic has been questioned. While the majority of computer games in their design do favour the ludic dimension, this is a matter of design choices rather than any natural hierarchy. Obviously, the greater the emphasis is on instrumental action and a purely functionalist frame of understanding, the greater is the chance that the thematic dimension only plays a superficial and, ultimately, insignificant role in the overall gameplay experience.

Considered as wholes and not just in terms of their surface signs, the significant differences between *Doom* (1993) and *Quake* (1996) are functional rather than thematic although the two feature different settings and background stories. The central premise for both is a hostile environment that requires fast reactions and precision. The quick pace and the multiplayer competitive element has been prioritised in the games' setup above everything else. Consequently, a sophisticated thematic layer would be superfluous because attention is required elsewhere. It does not follow that all digital action games necessarily have this priority, however. A game like *Ico* (2001), for instance, derives its impression-inducing power as much from the gameplay as the thematisation. The integration of the two into something relatable and meaningful is a central premise for the game as Drew Davidson's analysis of the game shows (Davidson, 2003).

While many computer games are designed foremost for goal-oriented, rule-optimising use there is nothing that decrees this state of affairs. Indeed, the digital technology facilitates the creations of hybrids between games and various textual forms more geared towards the communication of cultural meaning. Many existing – even highly acclaimed and popular – computer games attest to that. Therefore we should not approach all computer games with preconceived expectations of the centrality of this instrumental mode, just because they are called "games". Rather, each computer game – or sub genre – should be considered free of preconceived notions about the relation between the ludic and thematic, allowing the actual to override the expected. In order to illustrate this point and moreover use the framework suggested in the previous chapter, this chapter is dedicated to an analysis of some facets of the computer role playing game *The Witcher* (2008).

The Witcher is a brilliant example of a computer game in which the ludic and thematic dimensions have been integrated in such a way that the characters and their relations (two components that form the backbone of stories) are very likely to become a central point of reference for players' gameplay decisions. I will admit right away that *The Witcher* is a rare game in several aspects. However, even though it may be a deviation from the large mass of existing games it is still an interesting example of what computer games may also be. While I discuss *The Witcher* as an example of what I see as a successful integration of the ludic and thematic, it is in no respect my intention to present the game as the new model for all game design. Computer games find many different forms, catering to a variety of different players. That is as it should be.

Witching the game

The highly acclaimed computer role playing game *The Witcher* is based on a series of fantasy short stories and novels by the Polish author Andrzej Sapkowski about the chemically enhanced monster-slayer, a so-called witcher, Geralt of Rivia. Geralt is also the protagonist and player character of *The Witcher* and the player is not given any options to choose another avatar. The setting in both books and game is (generic) medieval with clear Eastern European accents. The game offers a "world" to players, that is, a richly simulated environment, although less detailed than in games like *Morrowind* or *Gothic* (2001). While a few aspects of the surroundings are simulated, namely plants and minerals that can be picked for potions with the right knowledge as well as a some interactable objects such as doors and special quest objects, the setting mainly comes alive through its gritty representation as well as the relationships and power relations that unfold in it through characters' actions and declarations. Describing actions and their possible consequences even on a long term basis, *The Witcher* has undoubtedly been created to tell a story. In this case it is a fictional story, in so far as other races than the human are present, notably elves and dwarves but even various fantastic kinds of monsters and plants. The strained, even abusive, relation between the older and the new race – the strong and greedy humans – is a central theme. Elves and dwarves are being persecuted by groups in society and a central choice that the player will face is whether to align with the old races, with an order of knights that battle the former, or stay neutral – the most difficult option because this means that both factions will see Geralt as an enemy at some point in the game. Another fantastic element is the availability of magic. While the use of magic seems rare it is certainly accessible for those trained or naturally endowed with the talent.

The Witcher is a game of progression (Juul, 2002) which offers players some freedom of choice within its three main acts as well as in the building of the player character in terms of skills and specialisations. Despite its story-telling ambitions, *The Witcher* is clearly a game. The player can only progress in the structure by fulfilling quest goals and overcoming obstacles, typically fighting foes of different kinds. That is, through the engagement with the game, players' actions are measured in a binary fashion as either successful or not, and the set goals encourage instrumental action. In terms of the relation between the ludic and thematic dimensions, I find two features of *The Witcher* particularly interesting. One is the handling of choice and consequence, the other is the potential for, what I will call, dimension crossing.

Choice and consequence

Game designer Sid Meier, famously, describes a game as a “series of interesting choices” (in Adams & Rollings, 2000, p. 38). While this is not necessarily an exhaustive definition of what a game is, this frequently quoted statement is a good starting point for an analysis of *The Witcher* where choice and consequence is implemented somewhat differently than in most other games of the same genre. It has been much discussed by game designers what exactly constitutes an “interesting choice”. The game designers Ernest Adams and Andrew Rollings (Adams & Rollings, p. 38), for instance, take it to mean balanced but unequally attractive options coupled with the ability to make an informed choice. Here, however, I will argue that some of the choices presented to players by *The Witcher* are interesting precisely because their consequences in terms of both the ludic and thematic dimension are not made clear or even hinted at.

It is quite common that computer games put players in situations where they must make a choice between two or more mutually exclusive and irrevocable courses of action. In computer role playing games some typical choices of that kind may be between opposed factions, NPC party member or rewards. Some of these choices are presented as significant both in terms of the ludic and the thematic dimension, but rarely will they be affecting only the latter. Typically there will be information available about how the various courses of action will affect future gameplay. This will often be given as part of the thematic context, for instance in the form of NPC dialogue or automatic journal entries. The dialogue prose may reveal that one reward suits a warrior while another is appropriate for a mage. In other cases, a player may be able to interfere, based on their explicitly or implicitly stated characteristics, how one faction or NPC party member may benefit her differently than another. It is certainly not part of the conventions to leave the player in the dark about the gameplay consequences of such choices.

The Witcher, however, presents the player with forking path choices several times during the prologue and three main acts with no hints about whether the choices have long-term effects for gameplay and, if so, what these may be. For instance, during the game's prologue Geralt will have to either fight a powerful monster or try to defend the witchers' laboratory – the secret heart of the witcher society. At the thematic level, both options are presented as equally vital and dangerous and no hints or information about their importance for gameplay are given although both choices do, in fact, impact later events. If the laboratory is chosen the player will face weaker enemies in the late stages of the game, whereas if the monster is chosen the player will get a powerful reward that will enable her to upgrade her weapon sooner during the course of the game. While the

two choices, in this way, more or less balance each other out, choosing one over the other may, in fact, have a major impact on the player's progress in that there seems to be a general agreement amongst players that the game's overall difficulty level is somewhat tilted, so that the earlier stages are comparably more difficult than the later.[14]

What I find interesting about the way these choices are designed in *The Witcher* is not so much their impacts later in the game (though the careful balancing of the outcomes is important) as what the lack of an official utilitarian interpretation of the choices means. As has been discussed in the previous chapters, normally partaking in a competition or playing a game with a winning condition entails instrumental action, where the goal dictates which actions should be taken and if any choice is more optimal than others. This is the meaning of the game. However, when players are not presented with obvious gameplay benefits and disadvantages of a certain course of actions neither implicitly or directly, the priority of instrumental choices over choices based on, for instance, narrative or emotions, is dismantled. Players are left without points to count or clear benefits to weight. The situation pressures them to base their choices on something else, something that is very often disregarded in computer games, not because it is of secondary significance by default, but because it has been designed not to be vital, namely the thematic dimension. The only immediate frame of reference offered by *The Witcher* in the situations of choice is the characters and their relations as well as the culture and social structures as depicted through the simulation and representation.

[14] See, for instance, http://www.thewitcher.com/forum/index.php?topic=15483.0 and http://www.thewitcher.com/forum/index.php?topic=13652.0

For instance, players are not given any indication of whether they benefit more from Geralt defending a local woman against the townsfolk or from helping the former punish her for deeds she may not even have committed. In fact, great pains have been taken at the thematic level to create ambiguity in that situation. Through the quests leading up to that particular choice, Geralt has been presented with most of the involved characters' particular interpretation of the situation as well as with evidence that seems to point in several directions, both implicating various villager as well as towards the accused woman. Thus, an ambiguous situation is created both at the ludic and thematic level, contrary to Aarseth's claim in the opening quote that this is only a story feature and cannot be found in games (Aarseth, 2004, p. 48).[15] It is true that the ambiguity at the ludic level needs to be reflected and reinforced at the thematic level in order to appear strongly. Otherwise, if at the thematic level one choice is marked as somehow better than the other the lack of instrumental indicators at the ludic level are undermined. When discussing this particular choice at the official forum, players cannot come to agreement about whether the witch is innocent or the accusations against her are true, a good indicator of the ambiguity of the presented material. Moreover, in terms of assessing the situation with regards to the ludic dimension, players who turn to outside sources, such as the official forum or walkthroughs, will find that the benefits and inconveniences of each choice are more or less balanced out. Hence, what the game offers as a basis for choice is simply the portrayal of a fictive community and the individuals it consists of. *The Witcher*, to a much greater degree than most computer

[15] As for the lack of moral dilemma in killing monsters in *Doom*, I believe this is because great care has been taken both at the ludic as well as the thematic level to make the monsters hostile, monstrous others.

games, in this way takes its own thematic dimension seriously, offering it as a central source for decision making. Thereby, the notion of a given and naturally asymmetric relation between the ludic and the thematic is forcefully short-circuited.

Although players may turn to outside sources such as walkthroughs in the hope that these will desiccate the game's thematic dimension into more manageable instrumentally oriented information, many of *The Witcher*'s players do refer to the thematic dimension when making major choices. This is evident from numerous posts at the official forum. Notions of good and evil, playing in character, the reliability or attractiveness of one girlfriend over another, etc. are some of the things players take into consideration when making forking path choices. Below is an excerpt from one of many threads discussing the choice of patronage for an orphaned, magic-wielding boy, a choice which also becomes a choice between Geralt's two main love interests:

> "Alvin to Triss, or Shani?
> #1 I've been putting this decision off. Just can't decide. Shani would probably be better for the kid. But Triss … well … another moral dilemma
> Nial
> #2 I feel with you, I'm reaching the end of that ACT and still haven't decided. I'd bring the kid to Shani if it was just for the kid but it would affect Geralt's relationships as well I'm afraid. First of, the way Shani approached me and demanded the child while insulting Triss gave me an idea how a possible relationship would be like, and as sweet as Shani is, I could live without such an attitude and Geralt probably too. Then again, she's sweeter and that sort of girl a man wants to protect. I couldn't really piss her off. - the image of Shani bursting into tears is just too much for me … But then again, I think Triss is much a more interesting personality and someone Geralt can discuss other things with than simple family matters. Think I'll chose Triss, but it'll break my heart" (*The Witcher* Official Discussion Board[16])

[16] http://www.thewitcher.com/forum/index.php?topic=5433.0

These are just the two of the first posts in that particular thread which goes on and on discussing the character of the two women and the reasons for choosing one over the other. The argumentation here is typical for such threads – there are many other like that – where reference is made to the perceived personal qualities of the NPCs in question, including their sexual attractiveness. When discussing their choices, some players refer to their own likes and dislikes, others try to think like the player character, Geralt, seeking to imagine how he would act in a given situation.

While a lot of the players who are active at the forum, based on their posts seem to enjoy how choice and consequence has been implemented in *The Witcher*, there are also players who do not appear to enjoy all the "long winded political *bleep*", as in the excerpt below:

> "Which side yields the best benefits, squirels or order?
> #1 Hey Guys,
> OK so I saw the other thread about helping squirels or order but it was all just long winded political *bleep*. What I want to know is which side yields the best benefits? For example what do you guys from helping either side? Does either side get you different weapons/armors, which side gives you more quests, does chooseing either side get your into any special areas(like the one gate in the sewers that leads into what looks like a forest but I cant seem to find a key for it anywhere). Or say, if I choose to help the order in the swamp battle with the dwarven blacksmith in the temple district no longer deal with me? etc. etc." (*The Witcher* Official Discussion Board[17])

It is obvious from this post that the original poster is disinterested in the represented characters and their relationships, that is, *The Witcher* as a story. Instead, the person just wants to meet the game's requirements efficiently. – Hence, the query for a functionalist interpretation of the game's events. Since the developers have made sure to more or less

[17] http://www.thewitcher.com/forum/index.php?topic=7540.0

balance out the pros and cons of different lines of action, such an account is not easily given as some of those responding to the post point out. In the excerpt below a user attempts to give an answer (#5) anyway, while at the same time stressing the opinion that "the fluff is what makes this game great":

> "#5 Quickest and dirtiest summary:
> elf version of raven's armour = good for signs
> neutral version of raven's armour = good for balance
> order version of raven's armour = good for defense
> That is the extent of the mechanical differences.
> Personally, armour version is a lame reason for choosing any side … the fluff is what makes this game great.
> #6 well neither side means anything to me, its just a game, your not really friend with seigfried or zoltan. their just characters in the game, that don't actually do anything so the choice is best made on which benefits you get to better play and/or enjoy the game, for myself I dont use signs myself so the order version would be far better for me. Whats really lame is choosing side based on sympathy for people and a cause that doesnt exist, its just a game" (*The Witcher* Official Discussion Board[18])

The response from the original poster (# 6) underlines that person's stance towards use of computer games; they are games as in the "classical" definition offered by Juul (2005), not game-texts that offer the double pleasures of gameplay and textual engagement.

The excerpts above very well illustrate the overall tension also discussed in the first chapter, between a gaming and a playing mindset. It is a tension between the strictly goal-oriented, optimising practice and a more holistic involvement with the game as both ludic and thematic system. While ruled games have been combined with free-form elements before the advent of computer games, most recently in tabletop role playing,

[18] http://www.thewitcher.com/forum/index.php?topic=7540.0

the mixture of the two becomes extremely visible with contemporary graphical computer games. In the next chapter I will suggest that both ways of approaching computer games may be encompassed in the notion of challenge and, consequently, that this is a helpful concept to explore and use analytically.

Dimension crossing

Now I will turn to a phenomenon that I have not noted in any computer games before playing *The Witcher*. This does not mean that other computer games do not offer similar examples, but it becomes very pronounced in this game. As already discussed, the ludic and thematic dimensions are deeply integrated in *The Witcher* in many small ways. At times even to the degree where devices mainly implemented for one dimension are given a role to play in the other, suddenly affecting meaning creation in another dimension than expected. One example is the use of the witchers' medallion both at the ludic and thematic level.

The medallion, which at the thematic level through cut-scenes and dialogue is referred to as a magical device unique to the witchers, is in the game foremost a gameplay device and a central GUI feature. It can be set to detect either magic or monsters and will tremble forcefully whenever one or the other is detected in the vicinity of Geralt. It works, then, as a kind of radar that may warn or inform players of interesting objects and encounters. At one point during the game, however, the GUI medallion suddenly begins to react during a NPC dialogue where the player cannot fight or otherwise engage with objects, locked in the dialogue function as she is. The situation is as follows: Geralt has been working together with an investigator, name of Maarloeve, on solving some mysteries related to the secret organisation, the

Salamandre, who attacked The Witchers' laboratory in the prologue. During one of their meetings the GUI medallion trembles quite violently the whole time, although nothing else in the two characters' interaction indicates that anything is wrong. Likewise, only a minor easily overlooked detail at the thematic level hints at any duplicity, namely some drugs visible at on previously empty table. If the player clicks the drugs, Geralt will remark “A small box containing fisstech. Must be evidence of some sort. I'd never suspect Raymond of being a user.” Like the trembling, this subtle hint that something is wrong is not something all players are likely to pick up. However, the perceptive player may at this point realise that Maarloewe is no longer the man he pretends to be – or rather, that Maarloeve is dead, replaced with someone who through magic appears to be him. Other players may just go on their merry way until Geralt finds the dead Maarloewe in the cemetery, which he will if the player finds the right clues during the main quest. The whole conspiracy is revealed sooner or later, but for the perceptive subtle hints are available before any possibilities for action are presented at the ludic level.

What is interesting here is the play with knowledge and meaning at different levels of the game and the way this knits the two meaning layers closer together because a device turns out to have the same meaning at both levels. In terms of pure gameplay, it does not make much difference for a player whether she realises that something is amiss with Maarloeve early on or not. She will have the same options either way since the realisation is only offered as something that can be realised at the thematic level until later in the game. However, this realisation may give a player the pleasant feeling of being perceptive and one step ahead. The realisation may even serve to shift the

meaning of her subsequent actions at the thematic level, from being part of the original investigation to being a new and different one.

Another question to consider is whether dimension crossing can go both ways. That is, from the thematic to the ludic dimension likewise. While the meaning of an action or feature at the ludic level to a great degree is objectively given within the instrumental system that is the game as game mechanisms judge the successfulness and appropriateness of their execution and use, meaning creation at the thematic level is fuzzier and subjectively coloured, as already discussed in the previous chapter. This, obviously, does not rule out that an individual player may let their gameplay actions be affected by their interpretation of actions and declarations presented in the thematic dimension that may be there mainly to add to the richness of that dimension. In fact, given the nature of semiosis, this will be a very likely occurrence. That kind of dimension crossing can be encouraged through particular design choices, but it can never in the same way as in the example above be hardcoded into the game.

During my playing of *The Witcher* I did experience something that could be described dimension crossing from the thematic to the ludic. In order to describe the situation, a somewhat technical explanation is first needed. There are two kinds of interactable books in the game. One kind, when read, adds opportunities to gather materials that can be used for potions and explosives from hereto unknown creatures, plants and minerals. These books, then, are part of a requirement to enable certain game mechanisms, thus, being meaningful in different ways both at the ludic and the thematic level. That is, at the ludic level they become part of a mechanism regardless of whether the player has read or understood the text displayed when the book is engaged. At the thematic level, if the player pays attention, she may even gain some more information to

flesh out the world presented by the game. Other books contain information that does not directly affect game mechanisms although they do add descriptions to relevant entries in an ingame encyclopaedia. This encyclopaedia is not directly integrated with or referred to within the diegetic dimension of the game. Rather, it is an external, extradeigetic commentary – which could be embedded in the game in terms of style and topic but in this case does not seem to be just that. The information can be used by the player to plan combat tactics or even just to learn more about the world presented in the game. While the understandings gained from these entries may be used at the ludic level, the encyclopaedia is not itself part of any game mechanism.

During the course of gameplay, the alchemist Kalkstein becomes an advisor and ally for Geralt. At one point during their investigations, they realise that Geralt will have to defeat a golem in order to obtain to gain access to an old tower. Kalkstein describes this creature as incredibly powerful and advises Geralt to find more information about golems to better prepare for the battle. It just happens so that a vendor some streets away sells books about golems. These books are of the second type as described above, giving the player an opportunity to gain more information but not directly affecting any game mechanisms. Kalkstein's advise together with the information from several books let me to believe that the golem would be very difficult to overcome and, hence, I kept putting off that confrontation, pursuing instead other quests, adding to Geralt's abilities and attributes along the way. When I finally decided that the time was right for an encounter with the golem it was disappointingly very easy to defeat and, at this point, not the formidable opponent I had envisaged. Of course my reading of the situation can be construed as a misreading, a simple mistake than any novice player (though I am not) might make of taking the thematic dimension too

seriously when all that matters is the game. However, since the hints about how to overcome the golem were effective at the ludic level it this serves to validate everything else written about the golem. In any case, my interpretation enriched my game experience at least until the point where I realised I had been unnecessarily cautious.

Happily ever after?

While I personally find that a strong integration of the ludic and thematic dimensions heightens my enjoyment of a game, I am fully aware that many players look for other kinds of experiences when gaming. Hence, the intention with this chapter has not been to laud a certain type of computer game as better than others. Rather, my brief analysis of a few aspects of *The Witcher* is meant to demonstrate that computer games may find many expressions and that it is important to approach each new game without too many preconceived notions about the relation between the ludic and thematic dimensions. The main strategy for affecting an integration of the two in this case is the lack of utilitarian interpretations of events and characters in the game coupled with carefully balanced outcomes. A less employed, but never the less very interesting, strategy is the dimension crossing where a function or entity that mainly carries meaning within one dimension suddenly appears as likely meaningful in the other dimension.

The strong integration of the ludic and thematic observable in *The Witcher* invites both ludus and paida engagement. This is to a great degree a deviation from the typical formally ruled game whether digital or analogue. For some players this focus on both text and game may be refreshing. However, to the degree where players expect ludus play but are offered a mixture of ludus and paida options, frustration may arise because the latter requires other types of involvement as well as different strategies and

competences than “classical” games with a high degree of fixity. For players who excel in strategic thinking and fast hand-eye coordination new competences may have to be nurtured, while the opposite is true when someone like me tries to play a typical action game. Judging from the reception of games like *The Witcher* there is an audience for computer games that balance the ludic and thematic dimensions more equally than what is often seen.

5. Pleasures of uncertainty and indeterminacy

> "[…] if goals provide a challenge that players enjoy working towards, why would anybody want to play games without a goal?" (Juul, 2007)

In the previous chapters I have suggested that the games in the middle of the ludus-paida continuum in being at once more and less regulated than either pole, offer their own paradoxical pleasures. Moreover, contemporary computer games due to their particular mediality have the potential to be hybrids; both games and media-texts. These are two good reasons, then, to formulate an aesthetic approach to computer games that seeks to understand and unite the ludic and thematic in a shared framework that may account for the functions of both and not take an antagonistic relationship between the two for given. This chapter is dedicated to further providing a holistic focus on computer games based on the notion of the game "in itself" as a constructed potential challenge structure.

Thinking of computer games in the terms of challenge seems an obvious thing to do, since most ruled games in their static form can be seen as formalised collections of constructed possible challenges.[19] This in itself is not a novel view neither within games research and design or play research in general. Game designers Ernest Adams and Andrew Rollings for instance conceptualise gameplay in terms of challenge in order to reach a more serviceable term. They suggest gameplay should be understood as "one or

[19] It can be discussed whether games of pure chance provide possible challenges. In so far as "challenge" refers not only to competitive or demanding situations, I think games of chance may provide some players with a stimulating challenge. Players who believe in luck may even see themselves as especially skilled at "wooing luck" or at making the right choice or move at the right time, thus experiencing their engagement with the game as a challenge.

more causally linked series of challenges in a simulated environment" (Adams & Rollings, 2003, p. 201). Rather atypically, the two offer a broad understanding of challenge including, for instance, moral challenges and exploration (Adams & Rollings, 2003, ch. 7). Within games research and design, however, the notion of challenge is often used rather narrowly as related only to ludic elements such as set goals, competition, and overcoming difficult situations. As we shall see, the concept does refer to another mode of challenge as well, one that better fits the characteristics of more imaginative, improvisational, and constructional play. Here I seek to unfold the phenomenon in order to make explicit what challenges in computer games may entail, and how the notion can be used analytically.

First challenge is discussed in general based on a common definition. This is followed by a brief overview of the use of the notion within computer games research. After this the focus will be on challenge as demanding situation and as stimulation. Specific emphasis is also put on the uncertainty and indeterminacy that is a central feature of challenge. The chapter ends with some reflections on challenge aesthetics and how the concept can be employed analytically.

The many faces of challenge

Before discussing notions of challenge within games research it is important to make clear what the term signifies in this context. I will begin by using the common meaning of the term as a starting point for further reflections about the phenomenon and its features. According to *Collins Concise Dictionary* a challenge is a "**1** demanding or stimulating situation. **2** a call to engage in contests, fight, or argument. **3** a questioning of a statement or fact. **4** a demand of a sentry for identification or a password […]".

Considering the first entry, a challenge is a state of affairs where a certain arrangement of an environment engages an entity in a way that causes arousal or alertness in the challenged due to inspiring or difficult features. The notion of "situation" here implies a state of becoming; a dynamic relation between entity and environment in which the challenge emerges. Challenge, then, is not a static phenomenon but something that appears in the specific relations between a given subject and its surroundings at a certain moment. This means that an *actual* challenge only arises when a subject is challenged by a given situation. Hence, any actual challenge is a subjective phenomenon and it may differ greatly from entity to entity as to what situations are found challenging or not. As is evident by the existence of games, education and art, humans are able not only to recognise *potential* challenges but even to construct them. Such constructions are only potential challenges in that they do not necessarily challenge everyone who encounters them, but by their particular arrangement have the prospective to do so. Henceforth, when mentioning challenges in relation to games I will be referring to potential challenges rather than actualised ones, unless otherwise indicated.

Ability to recognise and master challenging situations is a desirable trait because survival may ultimately depend on it. Here, I believe, lies one of the reasons for games' attractiveness. When game designer Raph Koster (2004, p. 98) speculates that fun in games is all about learning and film scholar Torben Grodal (2000, p. 209) concludes that people play games because of the "arousal connected to the learning process", it is another way of saying that humans play games because we are drawn to challenges and the mastery or development engaging with them may entail.

A challenging situation may arise as an invitation, when features in the environment passively facilitate and motivate engagement, or as something that cannot be avoided, when the engagement is forced upon the subject. Response, involvement and active participation are implied, whether by demand or invitation, and this is reinforced by the "call to" in the definition's second entry. A notion of process and, ultimately, the potential for transformation is, likewise, contained in the definition, most clearly in the three last descriptions. Terms such as "contest", "argument" and "sentry" all imply opposition or restrictions while the third description alerts us to the fact that the subject may challenge, as well, by not accepting the given and by seeking new ways. While every entry in the definition adds nuances to the conceptualisation of challenge, the first is the most important here. Of special interest are the two adjectives in the first entry; "demanding" and "stimulating" because they hint at a broad understanding of challenge that will be needed if the concept is to be used for a unified and holistic approach to computer games.

Probably the most common understanding of "challenge" refers to difficult situations that require the challenged to work hard or strive to overcome problems and obstacles. As will be clear shortly, at least within games research this understanding seems to be dominant, likely because it fits perfectly with the so-called "classical game definition" already cited in the first chapter (Juul, 2005) and other definitions that have competition as a central characteristic. I will argue, however, that in order to fully understand many computer games it is necessary to include the second notion of challenge, that of stimulation. Later in this chapter I will expand on that understanding specifically, but first it is time to look at conceptualisations of challenge within computer games research.

Challenge within games research

Although games are intimately coupled with challenge, the concept has been surprisingly sparingly discussed within games research and design. While challenge is mentioned now and again, for instance in much game design literature, this is often in passing or implicitly and rarely with any qualification of the term. When challenge is considered directly it is nearly always in relation to issues of motivation as one of the aspects that make computer games attractive to users, as is the case with most of the work I will discuss here.

Based on empirical studies, Thomas Malone in his work with designing and testing intrinsically motivating instructional games concludes that challenge is one of the main motivating factors for students. He writes:

> "In order for a computer game to be challenging, it must provide a goal whose attainment is uncertain." (Malone, 1980, p. 162)

The central keywords here are ”goal” and ”uncertain”. When discussing the first, Malone makes it clear that the goal does not have to be explicitly set, even "complex environments without built-in goals" can provide challenges if they are structured to allow the players to generate their own goals (Malone, 1980, pp. 162-163). This is an important insight that serves to underline that goals are important in terms of challenge only in so far as they provide direction and a necessity to act. The goal in itself does not automatically generate a challenge although it is certainly one of the properties that may contribute to the emergence of an actual challenge. Fundamentally, the challenge arises due to the particular arrangement of a certain environment in combination with the

subject's competences and resources. The goal in this context serves as an incentive. Someone without a particular goal may turn around if obstacles hinder their path since another direction may be as good as any. However, if an enforced or personal objective has been defined the person, everything considered, will be more likely to try to get past the hindrance. Uncertainty, on the other hand is vital for the emergence of challenge, indeed it is at the very heart of the phenomenon. Malone explains that the game easily becomes boring if the "player is either certain to win or certain to lose"(Malone, 1980, p.163). That is because the game if lacking uncertainty does not present a challenge at all. Later in this chapter I will expand on this important characteristic in more depth.

Interestingly, Malone suggests three factors that together make computer games enjoyable. Together with challenge these are curiosity and fantasy. Later in this chapter I will argue that all three factors are, in fact, connected to challenge in various ways. Malone, however, makes a clear distinction between the three. This can be taken as an indication that he regards the notion of challenge as mainly referring to competitive or difficult situations of various kinds, although this is not something that he mentions specifically. This seems to be what the authors of the next study have done, however.

In their study concerning player motivation communication and media scholars Tilo Hartmann, Christoph Klimmt and Peter Vorderer (2003) touch on challenge less directly. While referring to Malone's research as the basis for their work, their central concept is competition. Although the authors seem to make a distinction between challenge and competition in the following quote, it is not very clear exactly what they thing the difference consists in:

> "[…] a given game situation would be most enjoyable if it features both many possibilities to act and a strong necessity to act (i.e., a strong challenging/competitive element)." (Hartmann, Klimmt & Vorderer, 2003)

Whether this should be taken to mean that challenge and competition are used as synonyms here or that the first is connected to "many possibilities to act" while the second refers to "a strong necessity to act" is not entirely clear. A later statement seems to indicate that the former is the case:

> "As the participation in challenging and competitive situations appears to be an important reason for the enjoyment felt by computer game players, it is a plausible assumption that some individuals may experience more enjoyment from this activity than others, because there are individual differences with respect to the preference for engagement in competitive situations." (Hartmann, Klimmt & Vorderer, 2003)

At least they make clear that they do not regard other gameplay activities such as "exploration of the available possibilities to act" as something with the same potential to challenge (Hartmann, Klimmt & Vorderer, 2003). If "challenge" and "competition" are, indeed, used as synonyms here, I find this a problematic use of terms in that it is easy to conceive of a competitive game that does not necessarily present an actual challenge to all its players. Likewise, games without direct competition may well be challenging because they in other ways inspire or stimulate players.

This is a good example of a limited, but common, understanding of challenge. Since the study in this case is related to first person shooters the narrow focus is probably not problematic because overcoming hardship, optimising points, and competition are central for that genre. On the other hand, many first person shooters also provide ample opportunity for employment of creative strategies and inventive uses

of the simulated space and the available resources. This prospective element of improvisation and experimentation hints at other pleasures beyond the strictly victory-seeking, for instance the exhilaration of self-expression and creative construction. However, since this kind of use will most likely serve the greater goal of securing success, the general motivator may still be challenge as a demanding situation.

On a side note, I find that despite the problematic use of challenge, it is a redeeming factor that Hartman et al. are very aware of the limited scope of their hypothesis of the importance of competition for computer games. Rather than claiming competition as the central motivator for computer games of all genres, they restrict their study to first person shooter games. In fact, a somewhat similar study (Brolund et al., 2008) focusing specifically on computer role playing games concludes that other factors, such as developing a compelling and unique character, are important for these players to a much greater degree than competition in their enjoyment of that particular genre. Once again this emphasises that computer games are best approached on a genre basis rather than as one, big category.

That a narrow understanding of challenge may prove problematic when studying players' reactions to playing computer games is made clear by Laura Ermi and Frans Mäyrä's (2005) study of the gameplay-experience. Here challenge is regarded as one of the important aspects of computer games in terms of immersion. Challenge is associated with terms such as advancement and uncertainty, but the researchers do not draw fully on all meanings that the notion of challenge may entail. For instance, they seem to stress competitive aspects of challenge in their questions to players while failing to include constructional and explorative dimensions, that is, challenge as stimulation. This is not a

trivial omission as the narrow focus may have distorted their results somewhat. I base this on the fact that *The Sims 2* is the game that scores lowest in terms of challenge immersion. This may, of course be due to the way the players participating in this study use their game, but it may also be because the questions they were asked did not reflect too well the various challenges offered by it.

Taking an active part in the player community related to *The Sims* game series, I know for certain that players find a lot of challenges in playing *The Sims 2* and its many expansions. These may be connected to a kind of competition, namely trying to achieve as many goals within the game as possible as, for instance, required in the canonical player created legacy challenge.[20] However, due to extreme flexibility of the *The Sims 2*, the challenges that stimulate players are as often related to a large variety of creative endeavours such as building houses, decorating neighbourhoods, and creating various types of mods and custom content for the game. All activities that put expressivity and construction at the centre rather than struggles to beat the game. (Iversen, 2005)

Different studies show that players do not merely play computer games in order to overcome difficult obstacles or to do their best. Many other elements are important, too. In their qualitative study of how computer games may induce emotions in players by other means than narrative, XEODesign (Lazzaro, 2004) for instance comes up with four different reasons why people play videogames. The study summarises the finds in terms of four keys to player emotion: “hard fun, “easy fun”, “altered states”, and “the

[20] This challenge, which is probably the most well known and widely engaged in player created challenge for *The Sims 2*, was created by the player Pinstar. See http://www.legacychallenge.com/ .

people factor". The two first directly or indirectly invoke challenge. Hard fun is described in terms of pursuit of goals, reliance on strategy rather than blind luck, and doing ones best. Easy fun, on the other hand, relates to curiosity, wonderment, construction, and exploration. (Lazzaro, 2004) The pair, then, seems to be a short hand for challenge as demanding situation and challenge as stimulation, although is should be noted that the notion of hard fun even contains exploration of various approaches, an activity that to a great degree belongs in the second understanding of challenge. This stresses that overlaps may occur, for instance in cases where complex game elements encourage both types of challenge at once. It should also be noted that "hard fun" is not necessarily more challenging than "easy fun", but merely challenges in different ways.

Another, more comprehensive study of player motivations has been carried out by Nick Yee (2007). It is only concerned with massively multiplayer games, but the three overall motivational factors that he identifies, *achievement*, *relationships*, and *immersion* seem to be generally applicable. It is striking that both EXO Design and Yee's studies end up with rather similar motivational categories despite their differing focus and methodological differences. In Yee's terms achievement relates to competition, advancement, and game mechanics, while immersion is linked with discovery, customisation, role playing, and escapism. Again the first is a good description of challenge as a demanding situation while the latter evokes challenge as stimulation. (Yee, 2007)

The opening quote for this chapter is taken from Juul's discussion of "open and expressive games", his term for games that do not have predefined, enforced goals. Here he expresses his rhetorical puzzlement at the popularity of such games because

they fall outside what he claims to be “a widespread theory” of computer games, although no reference is given. This theory, according to Juul claims that “game goals provide a sense of direction and set up the challenges that the players face”. (Juul, 2007, p. 191) Perhaps this is a reference to Malone (1980, 1981), although he, as already discussed, makes clear that the goals he finds so central for the success of a game may be player generated rather than enforced. Juul’s own prior work *Half Real* expresses this view, however (Juul, 2005, p. 35, 43).

In the face of the popularity of open and expressive games, Juul acknowledges that predefined and enforced goals may have their limits:

> “Clear goals also mean clear failure, which may not suit a specific player since different players have different levels of frustration tolerance. Goals may also run counter to what the player *wants* to do: players may care more about the aesthetic or sentimental value of game choices than about the optimal way of playing the game. Games with goals afford certain types of experiences well, and leave less room for others.” (Juul, 2007, p. 193)

Predefined and enforced goals may not only frustrate players but also severely limit the possibility of players making their own agendas, something that may be just as enjoyable as striving to achieve goals set by others. The central question in Juul’s discussion is what games without predefined goals then offer? He suggests that they offer an expressivity that the more regulated games do not. Importantly, it is not the same free expressivity that, for instance, a language offers. The games still present a resistance; there is a limit to what player can do with the game. This leads Juul to ask another rhetorical question, namely why players would not prefer total freedom rather than the limits still imposed by the open games:

> "A first straightforward answer is that the resistance offered by these games is also a challenge as stipulated in the complete theory of videogames. A second answer is that though the player may not be able to make the game produce the events that he/she wants, such failure is in itself an interesting event: that is, the lack of complete control over the game events is offset by the interest that lies in trying, and sometimes failing to, control the game." (Juul, 2007, p. 199)

I believe the notion of resistance that Juul presents here is a central aspect of challenge, even when it is conceptualised as stimulation. In fact, resistance and indeterminacy together serve as the fuel for stimulation and inspiration. Total freedom may be overwhelming and too demanding. When a system that per definition is expected to be quite regulated loosens somewhat up by offering a greater variety of choices or creating room for improvisational and constructional play, chances are great that the two opposites (freedom and regulation) will create a synergy that makes both more attractive.

Add stimulation to hardship

As has been indicated above, a narrow understanding of challenge may be counterproductive when trying to understand games that fall outside the "classical game model" (Juul, 2005) and even limit the playful potential of all types of computer games because other elements that potentially may challenge are not seen to inhabit that potential. While the existence and wide use of open and expressive games may seem perplexing from a narrow perspective, the puzzlement that, for instance, Juul (2007) expresses in relation to the popularity of such games would probably not have stricken him if he had been aware of the notion of challenge as stimulation. At first this conceptualisation may seem rather vague because nearly anything in the right

circumstances may cause stimulation of various kinds. This fuzziness is due to the various significations of the term.

To stimulate, according to *Collins Concise Dictionary and Thesaurus* is to "**1** encourage to start or progress further […] **2** to fill (a person) with ideas or enthusiasm […] **3** *Physiol* to excite (a nerve or organ) with stimuli." While it is clear that all the three instances of stimulation may take place during a gameplay session the notion of challenge as stimulation needs to be more narrowly defined in order to be analytically applicable. The notion of challenge as a demanding situation already covers elements of competition, struggle towards a goal, problem solving, fast and precise reaction and combination, to mention the most central. In this context the term will refer to players' experiences and uses of games and the roles that various elements may play. Although difficult and competitive situations are stimulating in their own right, I want to reserve the notion of challenge as stimulation primarily for the more playful, superfluous, improvisational, creative, and less quantifiable uses of games. In that light it is possible to narrow the meaning down. The conceptualisation, then, will have to allude to conscious activity rather than subconscious reactions because in most cases the functions and activities are some that players can choose to engage in without being required to. This rules out the physiological notion of stimulation as well as notions of interpellation.[21] Here the notion of challenge as stimulation, then, will refer to the two first meanings of the term, encouragement and inspiration.

[21] See King (2007) for a very interesting discussion of gameplay and interpellation.

What, then, does challenge as stimulation in computer games entail? It means that aspects of the simulated environment and constructed situations are devised in such a fashion that they in various ways encourage or inspire players to imagine, improvise, create and construct, experiment, express themselves, and explore. The creative element may be limited to customisation but also includes elaborate building projects, modding, and role playing. Exploration entails both investigations of a simulated environment and the stories it offers but also engagement with the game as a system in order to discover its workings, boundaries, and possible loopholes. These activities may be motivated by goals and requirements in the game, but they should contain a paratelic element; an enjoyment of the activity in itself. While engaging in stimulating challenge may induce feelings of achievement in players, just like engagement with challenge as a demanding situation is likely to do if the player succeeds, it may also serve to make players experience a feeling of ownership because she is allowed to in various ways influence the presented environment, the actions therein, or her avatar not because it is required but based on her own inclination. It is a more multifaceted influence than the binaries of reaching either success or failure that challenge as a demanding situation is more likely to give rise to.

Challenge as stimulation also includes some activities that may be directly counterproductive in relation to challenge as a demanding situation. This is, for instance the case when players experiment with the mechanisms of a given game in order to find possible loopholes and exploits. The delight at such praxis is, for instance, quite palpable in Aarseth's account (2008) of his playing of *Oblivion* (2006). This kind of exploration, which often in word but not in spirit adheres to a given game's rules, may by some be seen as cheating. A wonderful example of this can be found in game

designer Chris Carford's *On Game Design* (2003). Here he describes an exercise game he devises for himself by creating a compound pendulum out of a motor cycle tire suspended from the ceiling with a wire (Crawford, 2003, pp. 38-39). He then marks an area on the floor underneath the tyre as the arena for play. The game's goal, as he defines it, is to hit the tire with a "sword" without being hit by it in turn or stepping outside the marked area. When showing a friend his game, however, something interesting happens because the friend decides to pursue a different challenge:

> "He stepped inside the circle and began lightly tapping the tire with the sword. When I asked him what he was doing he replied, "Winning the game." My game designer friend's trick demonstrates a crucial factor in the enjoyment of challenge: It's easy to ruin a good challenge by exploiting loopholes in the rules." (Crawford, 2003, p. 39)

This example very effectively illustrates how a narrow understanding of challenge may ultimately serve to limit and restrict some players' enjoyment of a game. Instead of accepting that different players may find that the same setup offers a variety of challenges, certain uses are deemed deviant, even corrupting. Such an approach to challenge may at worst limit the wide appeal of a game.

An interesting master thesis discusses the intricacies of respectively goal-play and toy-play, two concepts that are closely linked to challenge as a demanding situation and challenge as stimulation respectively (Harr et al., 2007). Based on theories on animal play, the authors offer five suggestions for how a computer game may support toy-play or challenge as stimulation. The first requisite is time and space to experiment. The second is plenitude in terms of action choices. The third factor they mention is complexity and flexibility in the form of a large amount of different goals and various ways to reach those. The fourth and fifth causes in this context overlap with each other

(and to some degree even with the first element), consisting in the player not being under constant threat coupled with an availability of resources. (Harr et al., 2007, pp. 38-44) I believe these three factors are principally important for fostering challenge as stimulation. If a player is under pressure from forced threats that require immediate and precise reaction all the way during a computer game, obviously, she will not have much incitement or opportunity to use the game more playfully. At least not for very long because the undeniable elements (Leino, 2007) of the game will make sure that her playing comes to a quick and abrupt end.

Uncertainty and indeterminacy

One of the central characteristics of challenge as discussed here, whether as demanding situation or stimulation, is not mentioned or alluded to in the definition that opened this chapter, but several of the discussed studies emphasise or mention this property. Considering challenge as an experiential phenomenon it is clear that uncertainty or indeterminacy lie at the heart of this experience:

> "Having a goal alone is not enough to make an activity or environment challenging. If one is certain to achieve a goal or certain *not* to achieve the goal, then the environment will not be challenging. In fact, some models of motivation specify that motivation will be maximal when uncertainty is maximal […]" (Lepper & Malone, 1987, p. 231)

Uncertainty and indeterminacy are, in fact, the very qualities that give rise to challenge.

Since challenge as demanding situation and stimulation have each their characteristics the uncertainty or indeterminacy connected to each are, likewise, dissimilar. In case of the former, the uncertainty may be related to, for instance, skills or the difficulty of the task at hand. In the case of challenge as stimulation, the notion of

indeterminacy better describes the potential for change and transformation present in that situation. This may entail flexibility to change on the part of the challenged, or versatility in the situation that allows repurposing or the creation of something new. Taking a game related example, playing *Tetris* for most players is fraught with uncertainty in terms of how long they will be able to hold, how the next block will fall, when the needed block for a particular constellation will appear, etc. These are all related to challenge as a demanding situation. The game due to its great fixity, however, does not provide much indeterminacy in the form of challenge as stimulation. There is no invention to be engaged in, no alternative approaches offered apart from the relatively trivial turning of blocks to decide where they best fit. All the basic facts of the game are there to begin with, and only the randomness of the process as well as the ever increasing speed ensure that the situation remains uncertain and, hence, challenging for many players. Games with a lower fixity, such as many computer role playing games, on the other hand, give players more freedom in this regard, for instance, to construct characters and stories or simply, to choose between several offered approaches to a given problem.

As already discussed in the first chapters, the use of some contemporary computer games may invite the double activity of ludus and paida: a constant shifting between the detached instrumentality and strategic thinking of the former and the imaginative and constructional engagement in the latter (Walther, 2003). Considering the two notions of games discussed in the first chapter, namely ludus and paida, it becomes clear that each is mainly related to one of the two challenge types (Caillois, p. 13) Notions of *turbulence*, *improvisation* and *uncontrolled fantasy* that are associated with paida can be

linked to the indeterminacy of challenge as stimulation. For ludus games, on the other hand, a central principle is to ensure that reaching success is uncertain through various means of regulation. At the middle of the ludus-paida continuum where the two meet and merge, the simultaneous lack of and need for regulation emerges as a paradox of, for instance, formalised role playing games. What is interesting in this context, then, is how various games incorporate one or both types of challenges and how they relate to each other.

Tools for holistic analysis

Instead of a purely ludic aesthetics (based on Callois conceptualisation of the ludic) I believe the study of computer games is in need of an aesthetics of challenge. The notion of challenge as presented here, unlike a ludologic approach, is able to encompass both the ludic and thematic dimension of computer games. This understanding never loses sight of the fundamental configurative and to a great degree goal-oriented character of computer games, but neither does it dismiss the potential function of representation, narrative and other thematic devices. Since the focus is neither solely on the game mechanics nor on the text, a challenge aesthetic may recognise the use of elements from other cultural media without believing that they have the exact same function in games. Narrative elements, for instance, may well serve as potential stimulating challenge devices, and a part of the pleasure of playing certain computer games may well be the desire to see a plot form. This want, however, does normally not stand on its own, but is intermingled with a drive for other, just as important, challenges. – Someone who just desires to be served a plot will probably read a book, not play a game. The aesthetics of challenge is an aesthetics of potentiality, active participation that cause changes,

process, transformation, and the wonderful tension between restriction and uncertainty. While novels and film may offer some of this, they do it in one channel only and never in a way that allows the reader or watcher to actively make changes. That is the pleasure of those media.

How, then, can the conceptualisation be used analytically? Foremost, I think, it provides a very helpful focus. A broad conceptualisation of challenge can serve to create a more multifaceted approach to computer games. In this view all elements of a computer game can potentially contribute to the creation of challenge if utilised right. This notion of challenge, moreover, can serve as the basis for asking questions. For instance about how various elements in a given game work on their own and in relation to the whole, but also whether an element enhances the challenge potential of a game or not. More detailed questions could be how players are made aware of particular challenges, how various challenges are triggered, and how challenges are made sense of. When I began this project it was my intention to map and categories challenges in different computer game genres in order to create a taxonomy of challenge types. Some way into that project, the futility of classification hit me. While categories can be used to superfluously pick something apart or mark it as belonging to a certain genre, they do not necessarily tell much about the phenomenon. Fixed categories, also, would only be temporary in the face computer game developments.

It may be perceived as a weakness that the challenges in games due to the nature of challenge must be approached as ultimately subjective phenomena. I see this, instead, as a strength. Not only does it underline that goals alone do not make a challenge. It also stresses the importance of player involvement as well as the need to consider players as individuals or explicit analytical constructs rather than abstractions based on undefined

preconceived notions. This does not mean, however, that we cannot approach a game in terms of its potential challenges and the implied position(s) that these create. This is, in fact, what I will do in the next analysis.

6. Striking Supernaturals

> "Allow me an analogy, if you will: if *Oblivion* is a gourmet dish with a rewarding taste that needs some acquiring, *Titan Quest* is a Big Mac - it's pretty tasty and fills a hole, but it isn't going to provide any huge surprises." (*Titan Quest review*, 2006)[22]

In the previous chapter I suggested that a unified view on both ludus and paida uses of games can be formulated with a starting point in the concept of challenge, because the uncertainty of challenges is one of the main attractions that games offer. This chapter seeks to demonstrate how the conceptualisation may be used analytically. Central are the notions of challenge as a demanding situation and as stimulation. The first is connected to overcoming difficulties, competing, doing ones best, point optimisation and the like. The second is linked to imagination, reflection, creative pursuits, cultural meaning construction and exploration for the sake of exploration. As also remarked upon in the previous chapter, obviously many people find competition and difficult situations highly stimulating. I do not mean to question that in any way when I here use the notion of challenge as stimulation to refer mainly to activities that are often not associated with challenge as a demanding situation. The intension is, simply, to ensure that these less discussed aspects of challenge are remembered when computer games are being considered in this light. As emphasised in the previous chapter, challenge is a dynamic phenomenon that is only actualised in the meeting between an individual and a specific context or situation. When I speak of challenge here, then, unless otherwise stated I refer to possible challenges – those challenges that humans may think of and construct for each other.

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[22] http://www.computerandvideogames.com/article.php?id=142302

Here I will carry out a comparative analysis of two markedly different computer role playing games, namely *Titan Quest* (2006) and *Elder Scrolls IV: Oblivion* (2006), exploring how various possible challenges are encouraged and facilitated in each game. The two games are compared not in order to claim ones superiority over the other but rather to show how challenges in computer games, even two that belong to the same overall genre, may take many forms.

As was the case with the previous analysis, I here base the analyses mainly on my own playing, in a few cases coupled with other accounts as found in various fora dedicated the games. Unless otherwise stated, when I invoke the player or players here, it is a reference to the implied player, a position created by the games, rather than myself as an individual.

Setting the context for play

As discussed in the third chapter, the distinction between ludic and thematic elements is not as easy to make as it may initially appear. The first elements that will be analysed here, however, are without doubt purely thematic elements; *Titan Quest*'s introduction movie and *Oblivion*'s initial menu screen. These examples are interesting, because they demonstrate both the difficulty of using the notion of stimulating challenge and that in terms of possible challenge the paratexts surrounding the computer game should not be dismissed as irrelevant (Genette, 1997).

Titan Quest's introduction movie

Upon running the game, and after the initial developer logo screen, the player is faced with a rather long introduction movie with two scenes. Apart from demonstrating the

producers' graphical skills the movies serves the purpose of setting the scene for the events that will unfold in the game. As has become the convention for most player character games, these movie sequences can be aborted with a key-stroke which marks them as obvious deniable elements (Leino, 2007). The first scene depicts a cowled, white-clad woman in what seems to be a high ceilinged and dimly lit room. She walks from the shadows to stand in front of a large wall mural, while a female voice describes the titans' defeat by the gods, their imprisonment and subsequent escape to wreak havoc

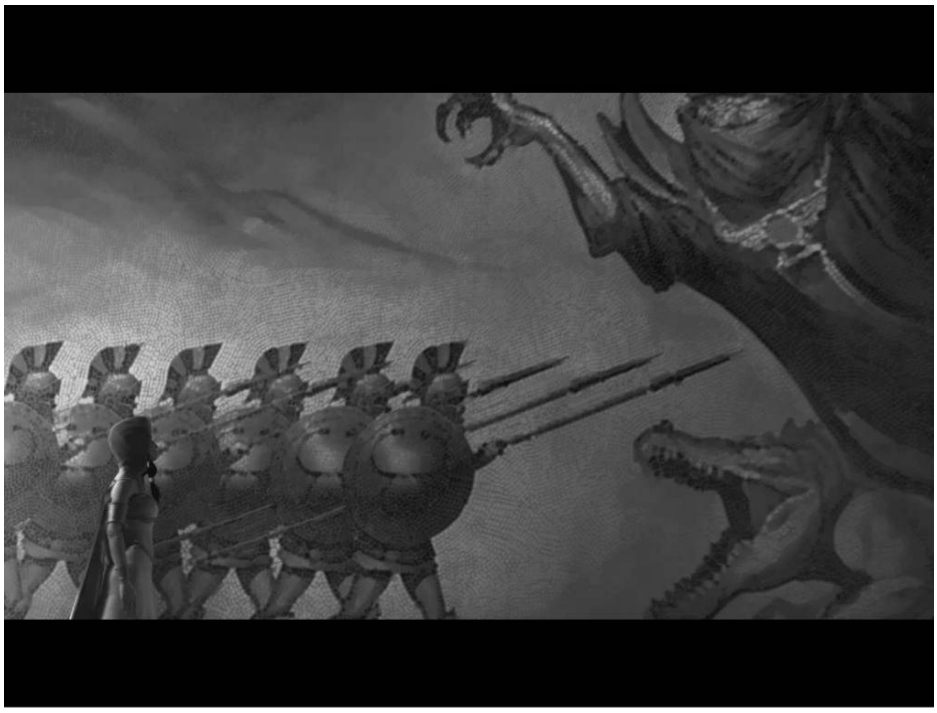

Fig. 6.1: Titan Quest, first scene opening movie.

on the human realms (fig.6.1). It is a serene, slowly paced scene in which the general background for the game, based on Greek mythology (but with new twists added for the occasion) is related by a strong and beautifully modulated female voice. The depicted woman's face is never shown, and the player is not invited to identify with her through cinematic techniques, such as close ups on the face or indirect point of view (find ref and the right terms). Both the woman's clothing as well as the voice acting are obvious

intertextual references to the Galadriel character and the first scenes in Peter Jackson's *The Fellowship of the Ring* (2001) in which Cate Blanchett speaks of the One Ring.

I read this scene as a possible challenging situation in two capacities. Due to the relative openness and suggestiveness of the scene – in comparison with the second scene, for instance – it offers a possible stimulating challenge. Nothing too concrete about the woman, her status, or surroundings is stated, and the player is not encouraged via cinematic techniques to identify with the woman. Rather a general frame of reference is created within which the player may continue her own constructional work in terms of imagining the universe, the challenges it offers, and her role therein. I do not claim that this scene may spur all kinds of creative work, but in comparison with the second scene, it offers a much stronger opportunity for players' creative construction.

Secondly, the scene implicitly, but clearly, refers to other fictions that may be known to the player, inviting her to join a game of "getting the reference". This may at once be a possible demanding and stimulating challenge aimed at those who possess knowledge to decipher the allusion. For players who do see this link, the connection may spark even more construction on their part about the game, its setting, and what they are about to engage in.

The second scene cuts to a view over an ancient city situated at a bay. In the forefront is a large building on top of a mountain with a small square in front of it. Zooming in on the scene, a group of male soldiers come into view. They stand outside the building around what seems to be an altar for Zeus, the latter implied by the large statue looming over the men. Suddenly the men are startled by a loud noise coming from a gate in the background; the gate is being breached from inside. The men line up in formation, while the face of one particular soldier comes into focus (fig 6.2). A

fearsome gorgon breaks through the gate, attacking the waiting soldiers, petrifying one of them. Only one man can stand against her – our hero who was singled out in the establishing shot previously – and finally manages to kill her. As the gorgon topples

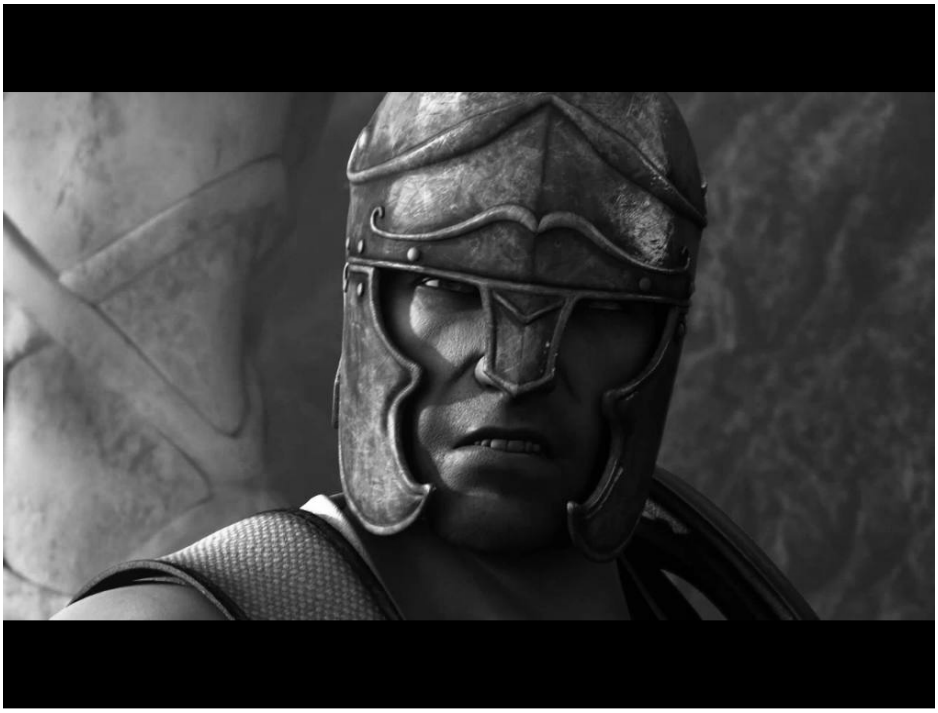

Fig. 6.2: Titan Quest, second scene opening movie.

into the Zeus statue, she takes the symbol of the god with her in the fall. The sole standing soldier swiftly moves away from the falling statue, taking one of his hurt companions with him out of harm's way. There is a cut to a pair of blue, pulsing hands picking up the decapitated head of Zeus. This newcomer, the player later learns, is a telekine – a powerful magical creature invented for the game, which features three of these as major bosses. Crushing the god's head in its hands, the creature remarks "not even your gods can save you now". There is a quick close cut back to the soldier, who rushes the enemy, then a fade to black.

In comparison with the first scene, the second establishes location and character to a much larger degree. While the first scene establishes some general background

information about the game, the second scene quite forcefully establishes “facts” about the game world. Identification with the heroic soldier is invited through the use of cinematic techniques. Here heroes (male soldiers), with whom players are invited to identify, and foes (female and other exotic creatures) are presented. While individual, actual players may read this scene in a number of ways, the forceful stating of facts may inform players on a more subconscious level, reinforcing certain strong readings of the use of violence for good as well as stereotypical gender roles such as the hyper-sexualized vixen and militarised masculinity (King & Krzywinska, 2006; pp. 177-184; Kline et al., 2003, ch. 11).

It may be tempting to read the deniability of the introduction movie with its possible stimulating challenges as an indicator for how this type of challenges are valued in *Titan Quest*’s design in general. Since the ability to abort intro movies has become a convention for all computer games that would be an unfair reading, however. What I have tried to demonstrate here is that not only in-game elements but even the paratexts surrounding a computer game may pose possible challenges to players. As pointed out in the previous chapter, in order for a computer game to offer challenge as stimulation a degree of indeterminacy is required. This can be created in many ways. I will move on to the opening menu of *Oblivion* to discuss another example where a possible stimulating challenge is offered much more strongly than in the scenes discussed here.

Oblivion’s opening menu

It is interesting to compare *Oblivion*’s opening menu with *Titan Quest*’s introduction movie because the former uses quite a different strategy. Upon loading the game, the

obligatory logo screens are shown followed by a load screen with the oblivion rune. Then loads the number “VI” on a bland background, signifying that the game is the fourth in the Elder Scrolls series, and more letters are added to form the title “Oblivion”. Behind this title a sketchy map appears. This image is used as a background for the

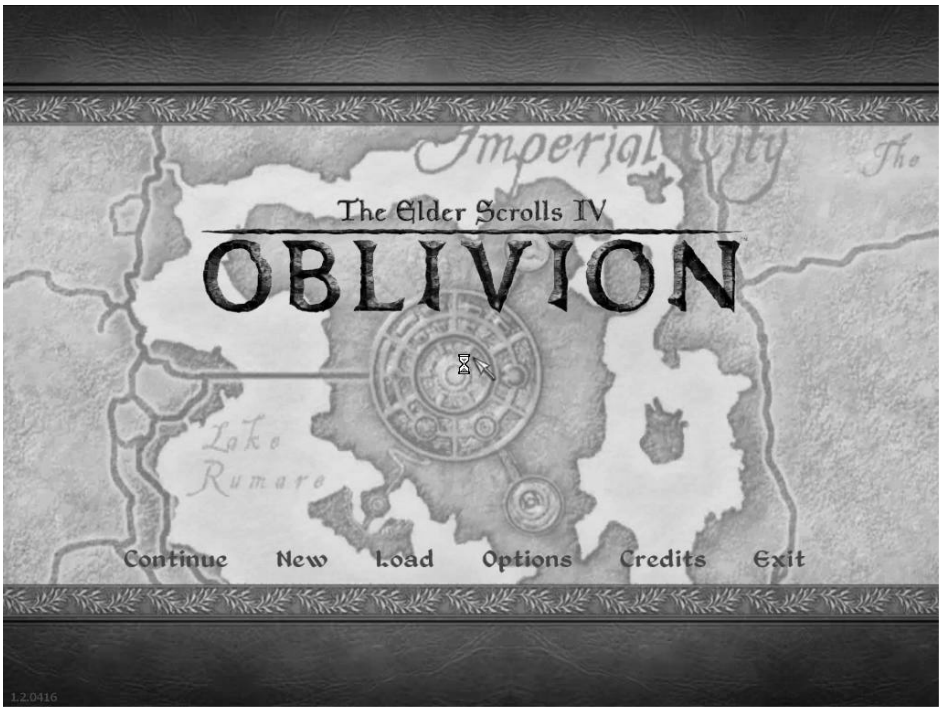

Fig. 6.3: *Oblivion*, main menu.

main menu, offering options such as “new”, “load”, “options”, etc. (fig. 6.3).

The *Elder Scrolls* series is an established brand, which is probably one reason for this brevity. Bethesda Softworks does not have to hype the product with fancy graphics, since players with knowledge of the previous games know that they will both get the highest quality of graphics as well as a highly acclaimed game. It may even be a nod to players, an acknowledgement that many players are likely to dive right into the game anyway, skipping any introduction movies.[23] However, these load screens also have a

[23] The game features an opening movie, which plays once a player has started a new game.

powerful potential to stimulate the player, challenging her to construction, exploration, etc. The vaguely sketched map is extremely suggestive, hinting at adventure, exploration, or new territory to be conquered, depending on the player's inclination.

Comparison

Although introduction movies and opening menus are paratextual elements that most players probably will not spare much attention beyond the initial sighting, it is still interesting to see how different the two games are presented in this respect. Although *Titans Quest's* introduction movie starts out comparably open in terms of context and content, it ends with a sequence that does not leave room for much indeterminacy and challenge as stimulation. Instead the scene can be seen as laying the foundation for the subsequent gameplay where, as the ongoing analysis will show, challenge is mainly linked to demanding situations. *Oblivion*'s opening menu, on the other hand, with its suggestive vagueness to a much greater degree intones challenge as stimulation right from the outset. As in the case with *Titan's Quest*, this is indicative of how the game employs challenge.

Using the introduction movies of *Titans Quest* and *Oblivion* as examples, I have shown here, that challenge as stimulation may as well be invited by a game's thematic features. In other words, surface elements are not just window dressing, but may play an active role in engaging and motivating players. Moving on to a crucial element of computer role playing games, the avatar and character building, I will continue to illustrate this point through the analysis.

The avatar and character building

Computer role playing games, as all role playing games, revolve around the building and development of a player character, which in graphical computer role playing games takes the visible form of an avatar. Avatar creation and character development are handled quite differently in *Titans Quest* and *Oblivion*, also in terms of the possible challenges these elements offer.

Titan Quest: Initial steps

The initial avatar creation in *Titans Quest* is fairly straightforward and simple. The player must decide the gender of her avatar and give it a name. The only other option for customisation is concerned with the colour of the avatar's clothing. Here the player can choose between five different colours. While the player can ignore the gender and tunic colour options – in which case the defaults are "male" and "white" – choosing a name of at least one character is a requirement to get past the start-up stage. It is an undeniable element because the name probably serves as an identifier in the game's programming. Apart from this practical/technical issue of naming, none of the three choices can bee seen as directly affecting gameplay. The avatar will react to game mechanisms in the same way regardless of its gender, name and tunic colour, which means that all the initial character-creation choices are concerned with the thematic dimension alone. As discussed in the previous chapter, the thematic elements of a computer game may, but do not have to, work as stimulating challenges. Thus avatar creation and customisation may offer the player a chance to engage in constructional activities, one of the elements of stimulation.

In terms of challenge, it seems that *Titan Quest*'s initial step of avatar creation has not been designed as something that could or should challenge players much. Many computer role playing games present the player with a long series of important – and possibly demanding, depending on the individual's prior experience – choices right from the outset. For *Titan Quest*'s design team ease of use seems to have been a major priority, instead. The player will not have to speculate about the consequences of her choices in terms of gameplay during the initial avatar creation. Thus, this step does not offer any possible demanding challenges. There is not much focus on the possible stimulating potential of initial avatar-creation, either. Or rather, the player can choose to put as little or much significance into the available choices as she likes. True, the player is given some choice rather than handed a pre-made avatar. This offers room for some personal construction which may play a role for the initial motivation (stimulation) to play at all. Naming needs not be a trivial task either. It allows for some creativity on the player's part, giving her the chance to invest some effort and imagination in choosing a name that may carry special signification for herself and maybe her peers.

Appearance customisation options are included in more and more computer games. Although the choices on offer in most cases are purely cosmetic, it is a way to offer the players a stimulating challenge that may give them a chance to express, obviously within the limits set by the particular game, their individuality and maybe increase their identification with the avatar. In *Titans Quest* both the player character and NPCs are rendered quite small, which means that details in clothing or face are not showing. For this reason alone it makes sense to limit the possible options for customising avatar appearance. Since the game obviously pays less attention to character appearance than other current computer role playing games, it seems odd to include the rather trivial

colour choice option at all. Especially since the colour black, which is a colour that often signifies evilness in Western culture, is not included. Apart from the default white, which may carry connotations of goodness, the four other colour options are quite "neutral" in current, common Western culture. Thus, it seems to me that the choice serves only as a minor basis for creative and self-expressive play and, thus, stimulating challenge. In this respect, the colour choice option appears as an empty gesture. In many recent computer games avatar customisation has become an expected feature whether or not it really makes some difference for the gameplay or the player's overall experience. The feature may have been included based on the assumption that players nowadays want to be able to customise their avatars. However, it does not take the underlying reasons for this want seriously, namely players' need to express themselves for various reasons or to be creative (Yee, 2007). Seen in that light, the tunic colour option could as well not be included as it caters to that need only marginally.

Titans Quest: The on-going development

Avatar creation and development, however, is not ended in *Titans Quest* with the first initial steps. As with all role playing games the heart of the game is the continuous development of the player character's abilities through levelling and subsequent increase of attributes and skills. In terms of point administration, character creation is a functional feature through and through. It influences gameplay in direct and consequent ways – or rather, as it is such a central feature it *is* gameplay.

The player character in *Titans Quest* is defined by two different sets of variables; *attributes* and *masteries*. As seen in fig. 6.4, there are five attributes; health, energy, strength, intelligence, and dexterity. Health and energy are increased automatically whenever the player gains another level. The player is even rewarded two unassigned points for each level, and sometimes as special rewards, that she can use to increase any of the attributes. Although different masteries are based on certain attributes, for instance combat masteries require strength and agility, there aren't any enforced interdependencies between skills and attributes in the form of attribute requirements when choosing and building masteries. This means that inexperienced players may end up investing their attribute points in a way that doesn't boost their chosen mastery enough. Players who have prior experience with the genre will know that, for instance, casting requires intelligence and high energy. Still, attributes and their value mostly differs from game to game so anyone who wants to ensure a good flow between

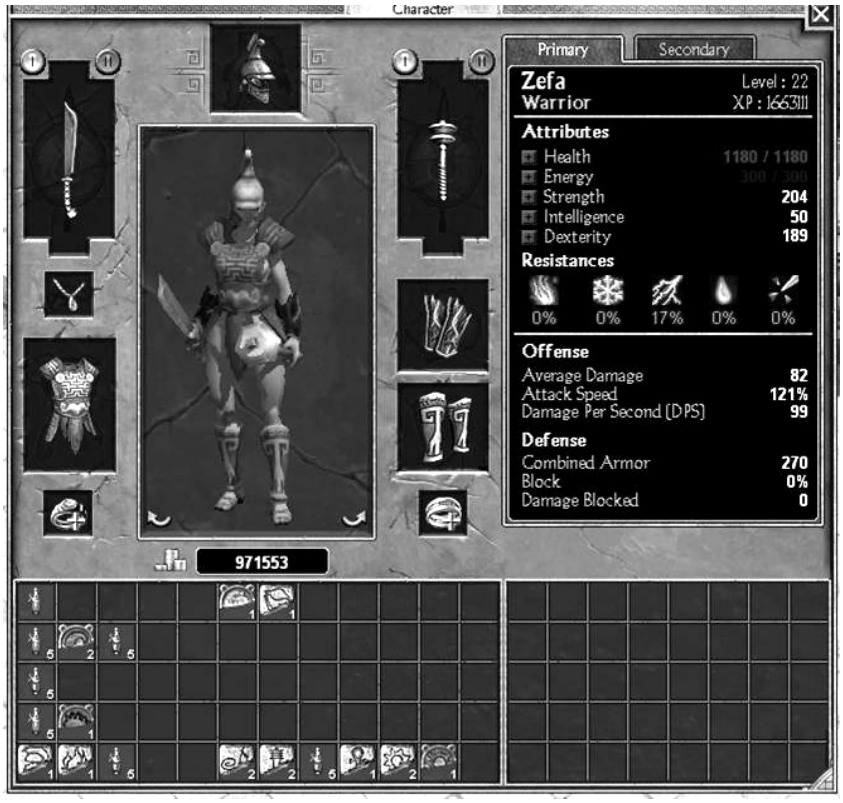

Fig. 6.4: *Titan Quest*, character menu.

attributes and masteries will either have to consult the manual (where brief recommendations are given), or one of the many internet forums dedicated to the game. The lack on in-game pointers about the exact relationship between attributes and masteries may be seen as a demanding challenge – at least by experienced players, because they are required to figure out the exact relationship on their own. For a novice player, however, it may be a problem more than a challenge, since imbalance between attributes and skills may impede the possibilities for progress.

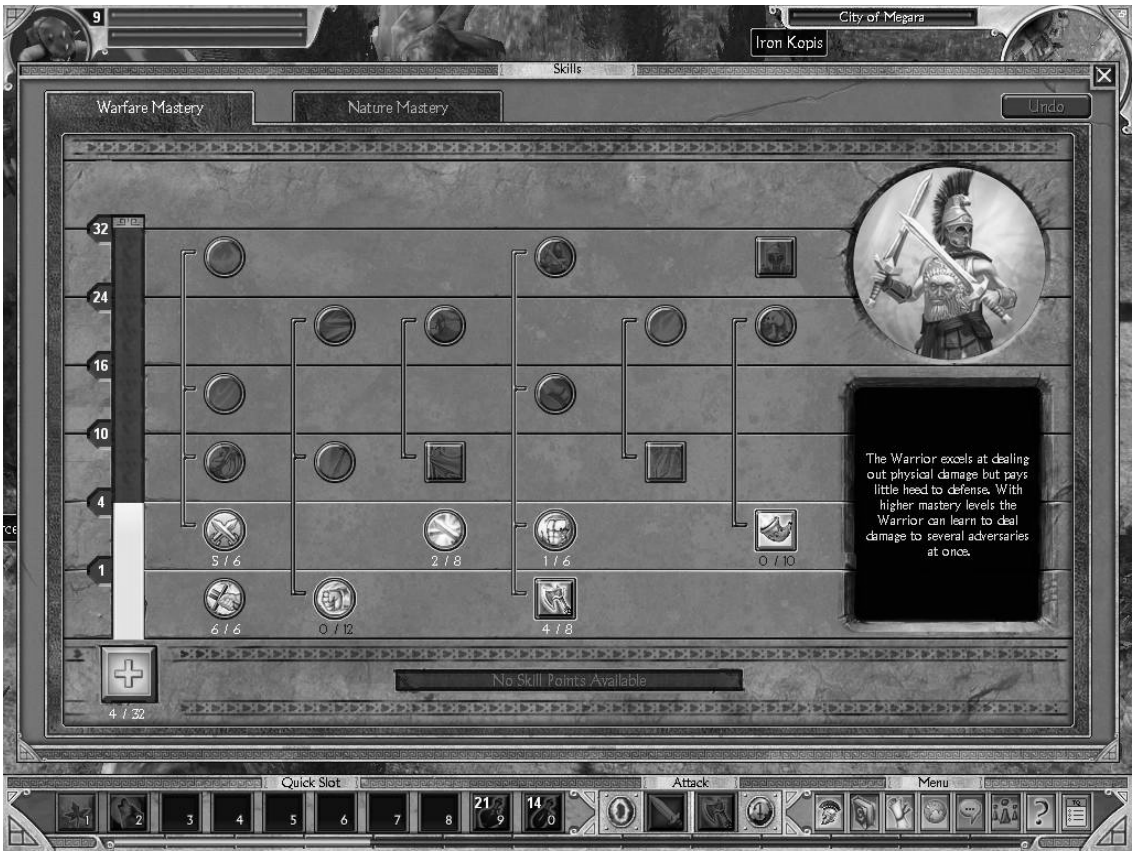

Fig. 6.5: *Titan Quest*, mastery menu

Instead of the traditional classes employed in many role playing games, *Titans Quest* employs a mastery system that is unique for the game. The mastery menu (fig. 6.5) is inaccessible for the player until she levels up for the first time, something that happens

after 10-15 minutes of playing if the player goes straight after the kill and does not spend time on exploring.[24] Upon first levelling up the player may choose one of eight masteries. Defence, warfare, hunting and rouge are melee masteries, while earth and storm are caster masteries. The last two, nature and spirit are considered neutral.[25] When level eight is reached an additional mastery may be chosen.

Each mastery is represented as a skill tree that starts out with only a few available options. As the player levels more options become available both horizontally and vertically. Upon levelling the player is rewarded 3 points that may be spent on either deepening one branch of the tree or adding a new skill. For a first time player, creating a good build is likely to be a challenge. There are many factors to consider, such as the usefulness of various skills, their relation to the player character's attributes and equipment as well as how well two masteries work together. Various player-developed resources for calculating builds are available on-line, and build creation is one of the most frequently discussed topics on *Titan Quest* fora. Developing the player character is a challenge that may both be demanding and stimulating. Creating the right build is much more than distributing a couple of points on levelling up because skills are highly interdependent. It is by no means as straight forward and easy as it may first seem and players are likely to experiment quite a bit before finding one that works well for them.

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[24] Since *Titans Quest* does not favour explorative challenges in its design, something I will discuss in more detail later in this chapter, it is unlikely that the player will spend much time doing that.

[25] See, for instance, http://vnboards.ign.com/titan_quest_character_class_build_board/b23099/103698432/p1/?5

Oblivion: Initial stages

At the initial stages of character creation in *Oblivion* at least three choices must be made as name, race and gender are required to identify and configure the player character. These undeniable functions default to male and imperial. Based on the player's choices the game generates a default avatar for the chosen race and gender, which can be

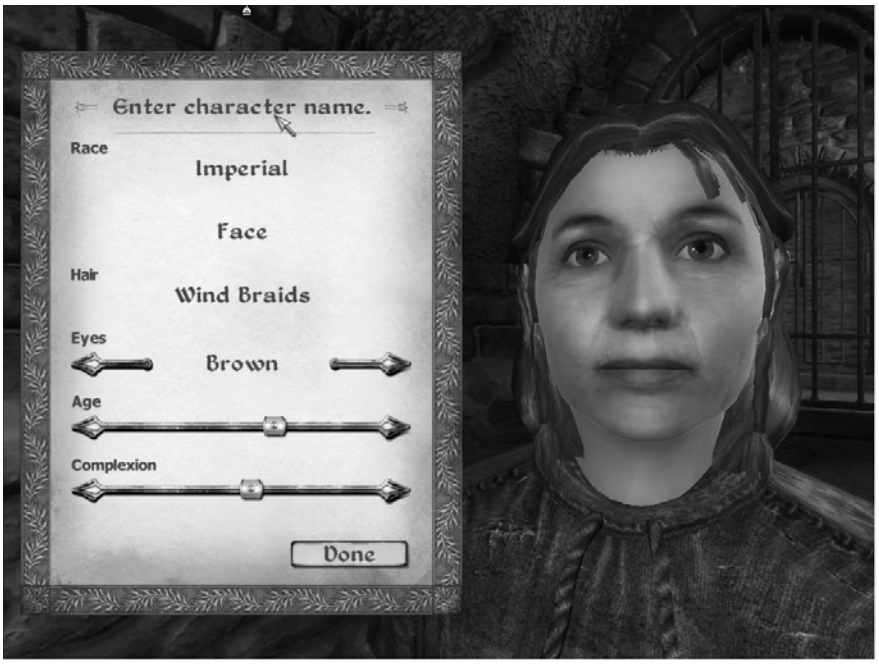

Fig. 6.6: *Oblivion*, character creation.

customised in countless ways in terms of appearance (fig 6.6). In the customisation process the player is likely to move back and forth between functional and expressive elements. The choice of avatar race and gender, for instance, affects both ludic function and surface thematisation. Some races are more suitable for certain classes due to their starting stats and abilities than others. Likewise, males and females of the various races have different starting attributes. In this light both choices are functional. Gender and race also affects the avatar's looks, which makes it a surface element.

Note that an individual entry for changing the avatar's gender from the custom male to female is lacking. This option is instead found under race. I do not want to read too much into this, but it is interesting that even in the case of a game like *Oblivion* which counts a great amount of women amongst its fan base, playing a man is still seen as the natural by the designers. Another sensitive issue is the linkage of certain races (even when they are fictional) with certain strengths and weaknesses. This practice which is typical for a high number of role playing games, in a textual view may appear rather controversial. The tension here is, again, one between ludic meaning, with its focus on functionality and employable mechanisms, and cultural meaning where notions of race are rarely innocent and merely matter of fact, deeply connected to power struggles between different groups as the concept is. (King & Krzywinska, 2006, pp. 184-187; Taylor, 2006, pp. 113-114)

The avatar in *Oblivion* can be customised in terms of facial feature shape, colouring, hair-do, hair colour and age. These options, which are purely aesthetic, may engage the player in a constructive challenge, as she tries to create an avatar exactly to her liking. While the customisable looks of the avatar do not affect gameplay it may still carry great emotional significance for some players and hereby have an effect on their overall experience of playing the game. This may be especially true when a player chooses to role play her character even in the single-player game. Character creation is integrated in the game's opening quest. Thus, the player picks some bonuses through a conversation with an important NPC, while another NPC advises on the choice of class based on the player's playing style. Both the player character and NPCs are defined by the strength of their attributes and skills. Different classes have different major skills, which receive a starting bonus and each class has two main attributes that receive a

bonus as well. There are 21 ready-made classes to choose from and each class is specialised mainly in combat, magic, or stealth. It is even possible to design custom classes. Thus, the player is given the freedom to choose seven major skills, a specialisation as well as two main attributes. Character creation, even at the initial stage has, thus, been designed with stimulating challenge potential. Players are left in charge given charge and given freedom to decide to what degree they want to define and personalise their avatar.

Ongoing development

Levelling in the Elder Scroll series is unlike that in most role playing games in that the player character gains levelling points based on the skills that are used. These skills are affiliated with one of the seven attributes: willpower, intelligence, agility, endurance, strength, speed, and personality. Whenever the player has earned 10 points distributed amongst the various major skills, the player character may be levelled up. This consists in choosing which attributes to spend one of three available points on. Depending on how much each various skills have increased some attributes may have achieved bonuses from +1 - +5. Some players see it as an enjoyable challenge to level efficiently, gaining +5 to the three attributes they level and not earning a lot of points that cannot be used.[26] Attempting efficient levelling is definitely a demanding challenge in that the player enters into a form of competition with the game system – and maybe even with other players with whom she may discuss her endeavours. Depending on the individual player's levelling strategies, levelling may be seen as containing both possible stimulating and demanding challenge elements. The points earned through playing

[26] http://www.uesp.net/wiki/Oblivion:Efficient_Leveling

become building blocks for the player to construct her character with. This construction may be aimed at creating an efficient character or at playing some role that the player has created for her player character, or even a mix of the two.

Oblivion also differs from most computer role playing games in that the simulated environment and the creatures in it levels with the player character. That is, NPCs, creatures, loot, and quest rewards are scaled to fit the player's level at any time. It is clear from the heated discussions at various game fora dedicated to the game, that this new element appeals highly to some players while others find it annoying and game breaking. One consequence of the scaling world, for instance, is that players will have to pay some attention to how they level their avatar if they want to progress successfully through the game. Players who want to construct, explore and imagine may find that the requirement of (somewhat) effective levelling does not necessarily increase the game's challenge value, but rather decreases it because they are forced to pay too much attention to the technical aspect of playing. It is possible to play *Oblivion* without levelling efficiently, but it may mean that the player will have to adjust the game's difficulty setting towards easy in order to cope in combat. Unlike with many computer role playing games the choice of difficulty level is not reserved for the beginning but can be adjusted continually during gameplay. This mechanism, then, somewhat balances out the consequences of the levelling system for players who are more interested in the game as a stimulating rather than a demanding challenge.

The players who do not enjoy the game as is can turn to the *TES Construction Set*, a tool kit of modding resources released with the game. These tools allows players to modify the game to be more or less what they want it to be. Some mods only add a new armour to the game while others add new quests and NPCS. The most extensive mods

completely modify the levelling system and the players access to the simulated world. One such mod, one of the most popular, is *Oscuro's Oblivion Overhaul*,[27] which completely changes many of the core game mechanisms:

> "OOO does not change every single variable responsible for gameplay, but it does affect many […] Each of these changes has been carefully measured against every other change to the gameplay structures in order to enhance the ultimate goal of gameplay: to absorb you into an exciting experience that entices you to overcome the many challenges you will face in Cyrodiil through rewarding your skill, ingenuity, and exploration.!"(OOO_133_readme, p. 25)

A nearly 50 pages long read me details all the various changes caused by the mod. One of the main changes is that the world has been made more static, in that the scaling levelling system is to a great degree negated with the mod. "Believability", "immersion" and "unpredictability" are some of the key words used by the creators to describe the mod. (OOO_133_readme, p. 28)

Even players who dislike many aspects of the original game design may gain much enjoyment from playing *Oblivion*, using mods that change the game to their liking.[28] Ultimately, in terms of challenges it seems that the *TES Construction Set*, much more than the scaling world and the attempt at adapting the game for console and action game players, is what makes *Oblivion* cater to a great variety of players. Even to a degree where the game becomes extremely re-playable because, depending on the mods used, it may be a very different game.

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[27] http://www.oscurogamedesign.com/down-game-ooo-high.html

[28] See for instance the home page of the player Arwen, who in much detail describes both her playing of the game and the mods she uses to make it into the game she wants to play. http://amito.freehostia.com/Oblivion/OB.htm

Comparison

In terms of the initial character creation, *Oblivion* to a much greater degree than *Titans Quest* offers players the potential of encountering challenge both as demanding situation and stimulation. In fact, the latter only very sparingly offers the character creation phase as something with the potential to challenge. *Oblivion*, on the other hand, offers the creation process as an activity with the potential to be interesting in it self, giving players opportunity to express themselves through creative modification. With respect to the ongoing character development, both games offer this activity mainly as an opportunity for challenge as a demanding situation. That is, players have to find out how to respectively create a viable build in the case of *Titans Quest*, and how to either level efficiently or, alternatively, find a way to enjoy the game without doing that, for instance by applying mods. To the degree that players attach any thematic significance to their build choices, this aspect of the game may even be experienced as a stimulating challenge. *Oblivion* more directly offers opportunities for this, for instance in the choice between factions and allies, while a player who wants to role play her character in *Titans Quest* will have to do this regardless of the game structures' lack of support.

Possibility spaces

As already discussed in the opening chapter, games as static structure are created and somewhat separate from the world at large. One way this separation appears is in the reduced complexity of the domain framed by the game in relation to the rest of existence. Even though contemporary computer games often present simulated environments that bear some similarity to the actual world in terms of their basic laws, these artificial world-like representations are still vastly simple in comparison. Certain

laws or processes have been made executable while many others are left out. Role playing games are simulations of characters and their actions within environments. These simulations are based on rules and mechanisms that facilitate certain possibilities for action while at the same time reducing complexity by providing focus and simplification. Salen and Zimmerman refer to this as a game's possibility space (Salen and Zimmerman, 2004, p. 67). A given computer game's possibility space is demarcated by the actions that the player can carry out in the context of playing the game and those she can not. This is not to be confused with the things the player should do according to the rules and goals of the game, nor the actions that are pronounced illegal by the rules or seem inexpedient according to the posed goals. Cheats, then, may be part of a given game's possibility space as well as add-ons and mods.

Titan Quest's possibility space

Titans Quest's possibility space can be described as quite simplistic; it is not created to offer an incredibly varied and complex environment but, rather, centres on a few primary features, most with an instrumental focus. In terms of facilitated activities, combat is the main form of action, but bartering, looting and search for quest information are all necessary to progress through the game. Although the quest structure requires the player character to travel through the simulated environment, this is mainly a way to structure and enable combat. The only exceptions to this focus is the dye that can be bought at vendors to change the player character's tunic colour, the non-quest NPCs and the story-telling NPCs, who tell about mythical figures related to the three areas in the game Greece, Crete and the Orient. These three are purely expressive features added, presumably, to enrich the game world. While the story-teller NPCs may stimulate some players challengingly – especially linked with the visual design of the

landscapes and creatures, which changes from region to region – the rest of the gameplay, being fast-paced and centred on achievement, does little to motivate the use of that feature. There seems to be even less point in activating the other speaking non-quest-giving NPCs. They only utter various random remarks about the difficulties of the times. From a challenge point of view it seems strange to include these. Since they have no function at the ludic level, their purpose should instead be to invoke some stimulating challenges, for instance by inviting the player to construct stories, identify with the depicted people, or in other ways use her imagination to enrich the gameplay experience. However, these NPCs are small in scale and highly generic in their representation. – Not something that is likely to encourage any engagement with that aspect of the game. Add to that the rather far removed isometric point of view offered to the player, which in this game adds to the general detachment with the thematic layer. It is important for me to stress, that I do not think the isometric point of view necessarily equals disengagement with the thematic dimension. Many classics like *The Secret of Monkey Island* (1990) or *Fallout* (1997) both feature memorable characters and situations despite their use of the isometric viewpoint. But none of these games are fast paced, generic in terms of representation, or with few simple mechanisms. It seems to me, then, that it is the coupling of all these features that result in a rather disengaging thematic dimension that only sparingly offers any opportunities for challenge as stimulation.

As in many other computer role playing games as well as strategy games, the map and landscape is blacked out in places the player has not yet traversed. As is often the case, *Titans Quest* does not allow the player to scroll past the player character in order to see more of the landscape, either. For some players the dark map may work as a

stimulating challenge, encouraging exploration of, or a least traversal through, every reachable bit of the environment. Others may choose to go everywhere in a given landscape in order to make sure that they kill all available foes in order to maximise the amount of experience points they may gain. Depending on the reactions of individual players this feature, then, may either facilitate challenge as a demanding situation or as stimulation. It seems to me, though, that the game's invitation to explore is yet another half hearted attempt at making the game a bit more varied or complex. While it is possible to veer from the path, that is, the main quest line, by pursuing some side quests and going through remote caves, these detours seem to have mainly been created as means for providing more points. In terms of their thematic representation these extra areas are always rather bland, they do not stand out from the rest of the game or offer anything of special interest. In terms of the ludic dimension, perusal of remote caves is encouraged as it is possible to find pieces for rare armour sets in these locations. Exploration, then, in *Titans Quest* has been designed mainly as yet another instrumental option for those who want to "go the extra mile" rather than as opportunities to find something extraordinary if leaving the straight path. Exploration is mainly presented as yet another demanding situation rather than as an opportunity to stimulate curiosity and imagination.

Another important feature both in terms of challenge set up and possibility space is the implementation of the game saving function. In *Titan Quest*, the player cannot save at will but only at designated save spots spread along the main route. It varies how far between these spots are, generally the more difficult the area the closer they are placed. If the player character dies during combat, she will automatically spawn again at the most recent save spot. While this means that the player may have to play through a large

area again, which may either be experienced as a heightening of the stakes in terms of challenge or just annoying waste of time, she does, on the other hand, not incur any penalty for dying. Such a penalty would most likely encourage most players to take care not to die too often. In other words, this may promote a careless playing style in some players because nothing is lost by dying. On the other hand, for other players having to play through a large area, even if it may not be particularly demanding, may be penalty enough. This aspect of the game, then, seems designed to not encumber players too much by requiring extreme care while simultaneously not reward extreme carelessness.

In terms of possibility space, challenges in *Titans Quest* are mainly connected to combat. According to the game's background story which is set in a mythical ancient Greece, the Titans have escaped their realm to wreck havoc on the human world. The player character is put forth as an unknown hero, who must journey through Greece, Egypt and the Middle East in order to find out how the wayward Titans can once again be imprisoned. Magnitudes of hostile beast races and animals accost the humans and the player character on her journey, and the player must combat these creatures both in order to get from one spot to the next as well as in order to obtain important objects and information. To the degree that combat is set up as a competition (with the game and other players in as far as a player may compare herself to others), it is mainly a demanding challenge. It is important to note, though, that combat in *Titans Quest* is not challenging as in requiring skilful aiming, quick reactions or the ability to memorise and combine special moves, as typically seen in many action games. Rather the challenge is mainly related to how well the player understands the mathematics behind the rules, being able to create a viable build, supplemented by suitable attributes and equipment. Gaining victory over an opponent is to a great degree based on the total effect of

equipment, attributes and skills. Obviously, there are some special abilities that the player needs to administrate via key input, which may require some strategic thinking in a tight spot. Likewise, there are a few battles now and then, where the player has to understand how various enemies work, for instance, first defeating the strongest opponent or devices that keep spawning foes. The player must also watch the health and energy level of the player character, self-healing, drinking potions or running from the opposition if those get too far down. It is clear from my own experimentation with different builds (some certainly more successful than others) as well as from discussion on the various fora dedicated to *Titan Quest* that the game may be rather demanding even on the easiest setting with the wrong build and equipment. On the other hand, it may feel nearly too easy with a strong build and good equipment. This may, of course, merely indicate that it is time to change to the next level of difficulty. *Titans Quest* like so many current games comes with three difficulty levels; normal, epic, and legendary.

Roughly speaking, the player encounters demanding challenges in two forms, as quests and hostile creatures. The quests are given by specially marked NPCs, which the player must activate herself. Main quest givers are easily found as they are mainly encountered in the cities where the player is safe from hostile attacks. Often the player is also given clear directions about how to find these key NPCs or locations. Side quest givers are still clearly marked, but they may be positioned more out of the way from the main roads, requiring the player to explore/traverse more of the virtual environment in order to find these. Doing quests is the most efficient way to earn experience points as most quest both involve killing a lot of opponents and are rewarded with huge amounts of experience points on conclusion. The game cannot be played without doing the main quest line, in that some places would be inaccessible without quest items and require the

main quest to be solved to a certain point. While quests challenges require player activation, foes, on the other hand, automatically attack the player character once she gets close enough. This kind of challenge, then, presents itself most clearly and forcefully in that not engaging in the challenge equals the end of playing (as the player character sooner or later will die). Both types of challenges are spatially arranged, positioned in the virtual landscape that the player character must traverse in order to reach important locations in the main quest. The landscape has been designed with many choking points where enemies are positioned, forcing the player character to fight her way through in order to proceed. For players who are interested in going a bit more out of the way, there are plenty of foes in more remote areas further away from the main road as well as in secluded areas like ruins and caves.

It has been a convention within computer role playing games (although it may be changing) that the player character will encounter increasingly high levelled foes as she travels through the landscape. This is a means for structuring the access to high level foes, so that low level player characters are not exposed to too many impossible opponents or vice versa, and the specific organisation varies from game to game. In *Titans Quest* this access is to some degree structured by the quest journey's linear structure. As in many games of the same type there is the rare superior enemy – apart from bosses, high level foes that the player must defeat in order to proceed in the quest structure – that may be encountered more or less by chance. As a consequence stakes may suddenly be much higher than expected, which may either be taken as a pleasurable challenge or an annoying factor. During the game the player encounters many relatively low level foes, a few high level foes, and the bosses whom are nearly

always quite difficult to overcome. This aspect of gameplay, however, is difficult to discuss in general since it is my actual playing that leads me to make these observations.

Titans Quest is clearly designed for easy access. The character creation system is relatively easy to use, although it may take some experimentation or reading up on the internet to create a viable build. Most opponents are easily conquered, a vast amount of money is easily acquired, and there is no scarcity of portal stones as in, for instance, *Diablo* (1996), which means that players need not direct much attention to managing stock. She can always port back to a town to sell her loot or if she runs out of portions. Like with all games one main challenge that *Titans Quest* provides consist in getting acquainted with and come to understand the relatively simple game mechanisms. Since the game is relatively simple both in terms of game mechanisms or thematic content, once the initial familiarisation process is over the player gets the opportunity to lose herself in the flow of the relatively repetitive task of playing. Personally, I have managed to have long phone conversations while playing with one hand, only keeping half an eye on the game from time to time. This is not a criticism of the game, however. Rather, in offering this ease of use the game is likely to appeal to many players, while those who want increasing difficulty can play the game through once more on a higher difficulty level. Judging from various fora dedicated to the game this is not at all uncommon. Turning now to the comparison game, *Oblivion*, it does not in the same way offer this uninterrupted state of going through the motions more or less on autopilot.

Oblivion's possibility space

In comparison with a game like *Titan Quest*, *Oblivion*'s level of complexity is high and this is reflected in the game's possibility space. One marked difference is *Oblivion*'s

comparable lack of fixity. This means that it is hard to make a detailed general analysis of challenge possibilities in *Oblivion* compared to *Titans Quest*. The game, simply, to a much greater degree reflects the choices of the individual player. Although the central game mechanism is the same for both games, levelling up the player character by engaging in the activities offered by the game, *Oblivion* presents a greater variety of methods for doing this. Moreover, the available activities are simulated in more detail. Interactions with NPCs may involve attempts at bribing or flattering in order to ensure a better outcome. Combat, likewise, is not automated as much as it is in *Titan Quest* but occurs in "real time". Not only does it require the player to continue activating the attack key but additional keys may enable blocking, aiming, etc. Apart from the greater detail richness in relation to the individual activities, the game also to a much greater degree seeks to simulate a somewhat realistic, though still fantastic, environment. Great care has been taken to give the impression of a dynamic world, where most NPCs have their own schedule, taking dinner at the tavern at noon or working the fields during the day, for instance. Likewise many NPCs have a variety of answers to give when encountered. It is not uncommon to happen upon two NPCs in "conversation" and some, even, mutter to themselves when walking the street. Moreover, doors of occupied houses are mostly locked at night or when the owner is not at home. Players may sleep, eat, own property, barter, steal, and befriend various groups. The stealing player also has to be careful as shopkeepers "notice" if they are sold back their own goods.

The low degree of fixity is apparent in the fact that it is possible to traverse much of the available space without levelling the player character at all, baring that not all enclosed areas are accessible to low level characters. Access to such locations may require either high skills with lock picking or magic. While the first encounter that

begins the main quest cannot be avoided, players are free to disregard the task put upon them and may choose to just move through the large simulated world, instead. There are plenty of side quests to engage in and many things to explore; abandoned cottages in the woods, underwater caves, sunken ships and, of course, the obligatory dungeons. This relative freedom means that players to a great degree are left to choose what kind of challenges they want to engage in. One player may focus on the demanding challenge of brilliant weapon use while another may focus on the personality of her character and how this is expressed in the adventures the avatar engages in. Players who are mainly interested in achievement and progressing through the quest structure may do this, using the fast travel short cuts on the map as well as the quest compass rather than having to follow NPC instructions, being forced to look out for landmarks or reading through long instructions in the quest notes. It should be noted, though, that the scaling world to a great degree favours effective levelling, which requires the player should focus her skill use on a few attributes at a time. This is somewhat contradictory to the "naturalness" of gaining skill points by using skills during the "daily pursuits" in Cyrodiil. Still, should a player find that she or her avatar is not up to the task the difficulty sliders can always be adjusted. Ultimatively, mods may be used to change the game to better fit a given player's approach.

Exploration in *Oblivion* can be an exhilarating experience whether moving through the beautiful landscape, happening upon some huts in the woods with invisible inhabitants, or finding a scallop with a pearl in it while diving. Both when playing in first or third person perspective, the player can get close to everything in the environment, zooming in on a plant or a painting for closer scrutiny. The ability to get close coupled with a game pace that is sometimes hectic during combat but just as often

slow when moving through the land, may induce in some players the feeling of nearly being present in the world of Cyrodiil. Players who do not want to spend a lot of time wandering the landscape and discovering small secrets for themselves can instead use the quick travel option that takes the avatar to places she has once been just by a mouse click. Compared to the previous game in the Elder Scroll series, features such as quick travel and the step by step hints in the quest journal indicates that *Oblivion* has been designed for greater ease of use, at least in some respects. When it comes to combat, the difficulty may have been raised slightly here, and combat requires a minimum of skill in aiming the weapon and combining the different moves. Granted, not much compared to most action games, but still more that what is needed to play a game like *Titans Quest* or even the previous game in the series, *Morrowind*. While hostile creatures do not swarm the countryside in the same way that they do in *Titans Quest*, a player who lets her avatar move through the land outside the main city will still encounter plenty of hostile creatures that she will have to fight or evade. These demanding challenges, then, force themselves on to the player who is warned by change of pace in the music score, the so-called “enemy theme”, when hostile creatures approach. While it is possible to build strong sneak skills it is unlikely that combat can be avoided fully, especially if the player carries out various quests. That said, most quests can be handled in various ways, depending on the players inclinations as well as the build of the player character.

The way saving is handled in *Oblivion* highlights the central design strategy of catering to the player’s inclination. The game may be saved at, nearly any time, during gameplay and quick buttons for both saving and loading are provided. The exceptions are that the game cannot be saved during combat or while hostile creates are close to the player character. The game also autosaves whenever the player enters into new areas.

Giving the player more or less control over when and how often to save, is a way to encourage experimental gameplay. Players may, for instance, explore various approaches to a givens situation or be more daring when entering into the unknown. Obviously, easy access to saving even means players may save in the midst of a conversation or bartering, allowing them to reload if the result of their subsequent actions is not to their liking. For some, this will probably be a way to diminish the game's challenges, but this is easily remedied by not saving in such situations. On the other hand, for players who like to play it more safely, control over savegames may be welcome, encouraging a daring more daring playing styles that they may usually engage in.

One problem *Oblivion* may have in terms of challenge is that, on the one hand the game has been designed to be highly versatile in terms of players' approaches to playing. However, despite the variety otherwise present in the game, some of the quest that are part of the main quest end up being quite repetitive both in terms of their thematic and ludic content. The player character is charged with closing various gates to Oblivion, a demon realm, where powerful deadra lords reign. These realms each look extremely alike and the tasks is always the same, to find a way to reach the looming tower and then figure out how the gate can be closed. The different towers offer slight variations in the methods for reaching and closing the gates, and most of the demon realms likewise have a hidden stash of supplies or two. Still, compared to the variation of the rest of the game both in terms of representation and variations over the basic quest structures, nothing seem to me more repetitious than wandering in the realm of Oblivion, a central part of the game's main quest and loose storyline.

Comparison

Considering the two games' possibility space in general, *Titan Quest* presents the player with the more simplistic simulated world. A few choice activities are available, such as movement in the environment, combat, looting, and information gathering. Most of these are clearly linked to challenge as a demanding situation, while only a few purely expressive features are included. These are, however, not fully realised in terms of challenge as stimulation. In comparison, *Oblivion* is a much more complex game, offering not only more types of activities but these are also, in most cases, simulated in more detail, adding extra opportunities for the players to demonstrate skill beyond merely understanding the underlying calculations. While both games offer a simulated world to players, *Oblivion's* is realised and detailed to a much greater degree. This is emphasised in the point of view positions offered. *Titan Quest* offers only a rather removed, isometric point of view whereas *Oblivion* offers both first and third person view points, the latter being more close to the events than what is possible in *Titan Quest*.

Not only does *Oblivion* contain a more complex simulation than *Titan Quest*, the first game also has a lower degree of fixity. While players have relatively great freedom in *Titan Quest* between each choke point, it is a game of progression (Juul, 2002) with central portal nodes that must not only be accessed in order to progress but even require fulfilment of certain conditions to be accessible. The freedom between those access points, however, is mainly a freedom to move around within the available area in order to combat a larger amount of creatures than strictly required. The game does not offer any other significant activities beyond that. Although the main quest line in *Oblivion* is structured similarly to that in *Titan Quest* in that a set of requirements have to be met

before advancement to the next stage is possible, the game can be played, and the world offered explored, without ever engaging in the main quest line. Plenty of side quests are available to occupy the player and a large simulated land mass, not to mention caves, under water locations, hamlets, cities, abandoned houses, may be explored. That is only one way to play the game, however. *Oblivion* can also be played mainly with an eye for achievement, even bracketing thematic elements as facilitated by the fast-travelling feature together with the quest compass. Hence, *Oblivion* offers challenge both as a demanding situation as well as stimulation while *Titan Quest* mainly offers the former. Here even exploration is, largely, linked to overcoming difficulties rather than enjoying the curious or rare.

The implementation of save features in each game also serves to underline their rather different approaches. The far between save spots in *Titan Quest* emphasise a focus on presenting players with challenge as a demanding situation. These demanding situations, moreover, are foremost enforced on players who want to keep on playing rather than offered as choices. When players are left in control of when to save in *Oblivion*, on the other hand, this underlines a greater scope for experimentation whether related to challenge as demanding situation or stimulation. The game facilitates that players can be more at leisure.

Titan Quest seems to foremost be designed for easy access and relatively smooth and careless play. Players do not have to consider a plethora of choices all the time. The only important choices offered are related to character build and which equipment to keep. The latter is more or less determined by the given build and, hence, should not require much deliberation. These features are likely to facilitate a detached, flow-inducing involvement. Player choice, on the other hand, is central when playing

Oblivion. For the same reason, the game is lees likely to offer deep flow involvement for long periods of time since the player is more likely to pause and think about what to do next. The game still offers plenty of opportunities for engrossment, although the types will differ, depending on how the player chooses to approach the game. Opportunities to engage both with challenge as a demanding situation and as stimulation are offered in many different variations.

Focused flow or variety?

Titan Quest and *Oblivion* have been compared here in order to contrast their differences against each other. The notion of challenge as demanding situation and stimulation has provided a focus for considering both ludic and thematic elements in the light of their possible challenging capacities. Despite their marked differences, I think that both games are well designed in terms of challenge, although the designers behind *Titan Quest* seem to have been less conscious about offering true opportunities for engaging with stimulating challenges than the team behind *Oblivion*. Since *Titan Quest* in all respects offers a much more focused experience this is not necessarily a mistake. In fact, the mistake may rather have been to include the few purely expressive elements available without properly utilising them. To me, at least, this appears somewhat half hearted and pointless. Since *Oblivion* offers both a greater variety and detail of gameplay activities, the game should have a broader appeal because it offers a greater variety of challenges. This variety and focus on player choice is further enhanced by the modding opportunities offered with the official construction set. On the other hand, it is not all players who like to have to make so many deliberate choices as required by *Oblivion*. For them a game like *Titan Quest* will probably be more suited.

7. Postapocalyptic Evergreens

> "You may have heard rumors that the Wasteland will have no safe food or drink. This is so much bunk. Science shows fresh produce and safe water will be available. However, you will likely encounter the need to eat irradiated food like raw chunks of two-headed Brahmin meat. And, in your darkest of moments, when all options are spent, you may shamefully choose to eat the flesh of your own kind." (Vault Dweller's Survival Guide/*Fallout 3* game manual)

Emerging from the vault, I - or, should I say Molly, my avatar – have not walked far in the blinding sunlight before my Pip-Boy 3000 picks up a cracking radio signal. As I exhilarated and cautiously make my way through the ravaged countryside the Ink Spots croon, "I don't want to set the world on fire". This juxtaposition of evergreens and a landscape ravaged by a nuclear blast is tantalising for several reasons and one example of how the third instalment of the *Fallout* series, *Fallout 3* (2008) has the potential to challenge players on many different levels. – Not only in terms of gameplay, exploration or imaginative play but even in terms of its satirical comments on relevant issues. Here I will analyse *Fallout 3* focusing specifically on the interplay between the thematic and ludic dimensions in creating a plethora of varied possible challenges.

In chapter two I suggested that one way to handle methodological challenges raised by simultaneously occupying the position of researcher and player is to embrace subjectivity fully, appearing as a situated and identified individual in the analysis. In the previous analyses, I have mainly invoked the implied player but here I try to present my own playing with less objectivist filtering.

Welcome to the retro future

Fallout 3 like some of the other games analysed here is a computer role playing game, which offers players an "open world" to explore. Although the first two games in the *Fallout* series still stand as some of the most pleasurable computer role playing games I have played, I was not keen to try out *Fallout 3*. As one of the many *Morrowind* fans who felt disappointed with *Oblivion*, which for me in comparison with its prequel due to its genre bending became more of a "twitch experience" than an open, explorable world, I worried that Bethesda Soft Studios, a division of Bethesda Softworks, would not only ruin the whole *Fallout* charm with aspirations towards "realism" but also create a brilliant looking but relatively unengaging game which catered more to borderline shooter players than those who wanted to explore as well as play with character and plot. When I finally got to play the game I was pleasantly surprised, however.

Fallout 3 makes its inheritance very clear right from the outset. Although the player's point of view has shifted from 2D isomorphic to 3D first person, with the possibility to shift to so-called "vanity mode" in third person perspective, the game has retained many of the stylistic elements that made the previous games in the series stand out from the mass. Instead of medieval fantasy nostalgia, heroes, and magic, the games provide a retro-futuristic, post-apocalyptic setting. I believe the gritty look and the adult themes are not only a ploy for attention, the games are also offered as a comment on current themes. This is the case in particular with *Fallout 3*. Thus, Sarah Grey (2009), based on Adorno's thinking, suggests that the dissonance of the presented imperfections

may create a basis for reflection. This is a striking contrast to the neomedievalism prevalent in many computer role playing games with fantasy settings (Stern, 2002).[29]

In terms of iconography and presentation style, the Pip-boy is still found in the various in-game interface menus and the mock mid century advertisement style still marks much of the writing, for instance during the GOAT test which each vault dweller is required to take in their 16th year to determine their occupation. Moreover, *Fallout 3*, like its predecessors, opens with a simulated old fashioned slideshow, complete with hacking overlaps and small mechanic clicks. This, in itself, is an enjoyment for me who got to experiment a bit with real slide shows just before computer software made that technology more or less obsolete. After the initial credits this slideshow moves on to various pre-game advertisements for urban wonders such as the Metro or the Museum of Technology as well as various consumer goods, such as subscription to the Vaulttech services which guarantees access to a vault in the case of nuclear war. These advertisements are intermixed with nationalistic propaganda. Moreover, the optimistic, often naivistic and cute, advertisements are coupled with a menacing score, intoning the ambiguous worldview presented in the game. Even at the game's opening, the official corporate and government rhetoric versus what is actually going on in the (fictional) world are juxtaposed, creating a satirical effect. Offering these striking juxtapositions, the loading screens introduce as possible stimulating challenge.

The first part of the introduction movie, too, in its use of cinematic devices refers directly to the previous games. While the Ink Spots croon there is a close up shot on a

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[29] The last years' appearance of "dark fantasy" computer role playing games seems to address this idylisation to some degree. *The Witcher*, as already discussed in chapter four, with its ambiguous tone and more gritty aesthetics is a good example of such a game.

homely scene, then a slow outward pan reveals that this apparent harmonic setting is actually situated in a bus shell amidst urban ruins. The exact same stylistic device was used for the introductions of the previous games. As a fan of the series it makes me feel in safe hands. The second part of the introduction movie shows scribbled scenes from wars while a voice-over speaks about the connection between war and humanity, ending with the pompous statement: “war, war never changes”. I am not sure if this is a failed attempt to be philosophical, but this second part undoes all the ambiguity and uncertainty intoned so far. In the tradition of Hollywood blockbusters everything is spelled out and then emphasised, just to be sure that everyone gets the point. This leaves nothing to be discovered or considered from various angles but just offers a given. Interestingly, this tension between the open and ambiguous on the one hand and the normative and fixed on the other remains throughout the game until everything comes together in a remarkable and controversial finale at the end of the main quest. As will be clear in the end, *Fallout 3* despite giving players much freedom to choose their own path also offers an authoritative and final interpretation of these actions. This part of the game’s paratext (Genette, 1997), then, both intones stimulating challenges and at the same time, to some degree, overrides the indeterminacy created by closing it down with a forcefully delivered interpretation.

Babysteps

Amongst computer role playing games Betheda’s games are well known for integrating character creation and gameplay tutorials at the deigetic level of the game as part of the main quest line. In *Fallout 3* the designers have gone to new lengths to integrate these features in what becomes the player character’s background story. The game opens with

the player character's birth in one of the protected vaults 200 years after a nuclear blast has destroyed most of the United States, and, who knows, maybe even the rest of the world. After I have named my avatar Molly and met her parents, her mother dies of birth related complications. Then the first compulsory quests transport me from one significant moment in Molly's life to the next, in a rather closed progression structure (Juul, 2002). As Molly takes her first steps, I am instructed how to move in the game and activate functional devices. As Molly experiences her tenth birthday, I am presented with various vault inhabitants and must choose her reactions to different people and scenarios. Does she lie, fight, tell the truth, stand up for herself of shy away, share with others? I also learn to shoot a basic gun. In Molly's 16th year there is the G.O.A.T test, which is the guided character creation feature, by now a trademark of any game from Bethesda.

I see that test mainly as a gimmick. It is an ironic take on profession tests at large and its writing style is held in an overtly optimistic, advertisement-like tone, as is all Vault-Tech material, referring together with the illustrations to the previous games. In this sense it caters as much to a thematic dimension than the ludic. The humorous images featuring the every present Pip-boy underlines this. While going through the test is enough the first time both in terms of its joking tone and because it is interesting to see which character build the game engine suggests on the basis of my answers, I have never used these generated characters apart from the first time I played a game by Bethesda. Experienced players, most likely, will rather choose their own traits and skills instead of letting the game assign them based on somewhat obscure criteria.

In terms of challenge as demand the character creation and tutorial quests are just something to get through. However, I see the first quests as having another function

which ties in with challenge as stimulation. One advantage of the character creations quests is that the player character does not spring fully mature from “Zeus’s brow” as is nearly always the case in computer games, barring a few exceptions such as *Fable* (2004). With the childhood glimpses a background is offered. It may not be incredibly interesting as (part of) a story in itself. However, in terms of challenge this background story gives me a context for constructing the character I play with. While some players may not want to do that, other computer role playing game players see this as a central part of their play and I am not an exception to that (Brolund et al., 2008). This background story is well implemented in that it lets the player determine what the player character will be like through the actions she chooses. For instance, a variety of possible responses are available in the various encounters with the other vault dwellers. The father, for instance, plays a central role in these quests – as he does in the whole main quest – but this may take on many different meanings and inform playing differently from player to player. I can choose to let Molly follow closely in her father’s idealistic and self-sacrificing footsteps, or let her act on the basis of mixed feelings, or should she maybe revolt against everything her father stands for? Since I am a quizzical player (even when playing for fun) who shifts between role playing and investigations of the system, I usually try several approaches until I land at something that is rarely right out villainous. In this playing with Molly I rather quickly tired of the father’s shining example, so she ended up conforming mostly but still reacting against the regulated vault life, as I suspect most teenagers would do. In any regard, the lack of determination in the presentation and response options gives me something to work with in my constructive play and is a good example of how challenge as stimulation may be facilitated. While many of these choices mainly shape the thematic layer, there

are even cases where different responses influence gameplay in slight ways, for instance in terms of karma points. I can speculate that players with a very instrumental approach, who play mainly to beat the game, may find the opening quests rather tedious. In that case, there are a few shortcuts available, for instance for those who do not have the patience to sit through the GOAT test.

Through the wasteland with my Pip-Boy 3000

Throughout the whole modern period the ideal for non avant-garde cultural objects has been immediacy as exemplified in realist literature and art. Digital virtual worlds, because they mostly have to facilitate various forms of interactions often come bundled with an unintentional distancing effect; the engagement with the simulation can only be maintained via devices that emphasise the mediated nature of the experience. For digital games with a main focus on the ludic meaning dimension this is not necessarily a problem since the ludic engagement in itself is detached, instrumental and strategic (Walther, 2003). However, when games are created to be strong both in terms of their ludic and thematic dimension, the tension between immediacy and hypermediacy may call for creative workarounds (Bolter & Grusin, 2000). Hence it is quite common for computer role playing games to some way or other attempt to integrate the various interface elements, which enable players to act in the simulated environment, with the overall theme of the game. Interface elements of a medieval fantasy computer role playing game, thus, may use wooden, old looking textures, any logged information may be presented on a parchment-like background and the writing may look arcane.

In the *Fallout* games the interface elements are not only visually integrated with the overall theme, they are also explained and function at the thematic level. Nearly all

interface functions are integrated in the so-called Pip-Boy 3000; a wondrous technological device which contains vital information about the player character's health and equipment, as well as maps, compass, radar, quest notes, and the like. All the actions afforded by these functions are, with a little suspension of disbelief, internal to the fictional world presented by the game. Just as I do when carrying out my actual work, part of the life *Fallout 3*'s world consist in tabbing between various menus in order to access information. External functions, such as saving and loading must be accessed via a different menu. This way, elements that function both at the ludic and thematic level are further separated from those that only work in relation to the first. In this way the game seeks to keep me inside the fiction, rather than fluctuating between the thematic and the ludic. It is an attempt at integrating the two dimensions, in other words.

Navigation aids in *Fallout 3* have been designed for ease of use, as a further simplification of the features offered in *Oblivion*. A compass arrow on lower part of the navigation panel always points in the direction of the next relevant location related to a chosen quest. Somewhat ironically, this is a mediasation of navigation contained within the fiction which the developers have taken some pains to present as immediate as possible. However, due to my figuration of Windows, the general task bar covers the lowest part of the game's navigation line at the bottom of the screen during my play, leading to an immediacy which, for me, enhances the experience. While I can see the NPC indicators, the task bar hides the indicators pointing me to the next location of the currently chosen quest. Although this is an unintended side effect that left me a bit confused at first during the escape in the vault, I have chosen to not alter these settings because I enjoy they way it forces me to pay more attention both to quest givers'

directions, but mainly to landmarks and other details I can use to navigate by. The game, however, has not been designed to be played without this navigation device. Clear directions are seldom given, precisely because the idea behind the navigation bar is to spare players for something as tedious as finding their way round. So I foremost have to rely on other direction givers such as signs (in the metro), landmarks, and the large map combined with the compass. I also consult a walkthrough from time to time for directions if I get completely lost down in the dreary metro tunnels, which lead to many interesting places. While I probably spend much more time finding my way around than has been intended, removing that particular layer of mediation increased my engrossment in the game. This does not mean that interface elements that mediate action possibilities which cannot be simulated more intuitively necessarily hinder engrossment or are at conflict with the world presented. For instance, the V.A.T.S system which is another mediating device certainly contributes very positively to my experience.

Another Pip-boy 3000 feature is the V.A.T.S system, an optional function that enables a kind of guided combat mode. In V.A.T.S a chosen opponent is shown with various body parts marked with the probability of getting a successful hit. This feature has caused controversy amongst the game's players. Some find it unnecessary and game breaking because it diminished the challenge of combat, while others like it. Personally, I see the VATS as a good compromise, catering to those players who do not enjoy playing shooters. For me it makes the combat aspect of the game more interesting and engaged than if I had been left to my own devices. I rarely play shooters and have not perfected the skills necessary for precise aim-taking and quick reactions. With V.A.T.S function I can avoid the random mouse click panic that would otherwise have ensued

when encountering hostile creatures. It lets me received clear feedback and gives me time to concentrate and think, even in terms of strategy. The downside to the V.A.T.S system is that each shot uses an amount of points and these are only replenished over time. This has, of course, been implemented in order to balance the guides mode so that it does not offer too much of an advantage. I usually toggle between V.A.T.S and “real time” combat in order to make the most of the time. Since use of the V.A.T.S is optional, combat may cater to different kinds of playing styles, both those who prefer their own skilful reactions and those who like the help offered by the system.

Overcoming wear, locks and other impediments

Some games can be played without mediating functions, blind chess for instance, but many formal games in various ways utilize objects to represent states, enable actions or store information. While mediation is nothing new in relation to games, world simulating digital games are more radical than most analogue games (maybe apart from live action role playing games) in this respect because they represent audiovisually realized complex virtual worlds. The program level of digital games handles input and output, and the surface level mediates this information in the form of represented actions and events together with other forms of feedback such as scores, hit values, etc. Since computer role playing games feature characters who act in worlds, the simulated actions, events and environment tend to have an overall mimetic relationship to the actual world. Obviously, like other possible worlds, the simulated environments may be guided by other rules and contain elements that do not exist, such as magic. Still, if the player character is required to find a key in order to get past a locked door, this sequence of events will be expressed with reference to keys, doors, and the character in

question rather than, for instance, red circles and blue squares. What may vary is the level of details in terms of steps in the process as well as the style of depiction. In early computer role playing games such a process was more abstracted, due to technological restrictions in terms of rendering moving graphics. If relying on textual display the process could be as complex as the author devised.

Despite the tendency to mimic the actual in virtual worlds such as those presented by complex graphical digital games, there are still many ways to simulate a simple process such as picking open a locked door with a pin. Often players are merely required to click with the mouse on a locked door and the game calculates their lock picking skills along with any modifiers in relation to the door's difficulty value. If the skill is high enough the door becomes passable, otherwise it remains locked. While these days it would be possible to simulate the lock picking in more detail, and that is, in fact, what *Fallout 3* does, most computer role playing games cut out this part of the procedure, focusing on the state of the door rather than on the process of opening it. In a purely instrumental light there is no need for more detail because the vital question in that situation is whether or not the door can be passed. The scenario in terms of cultural significance, likewise, makes sense without more details as players are perfectly capable of filling out the blanks themselves. From a challenge perspective, however, simulating the process of lockpicking may be a way to offer players a more involved experience.

In *Fallout 3* lock picking and other menial tasks are implemented as small challenges in themselves. Successful lock picking, for instance, does not only dependent on the player character's skill level and the lock's difficulty. The game even requires me to manipulate a simulated pin in a simulated lock. Judging by the sound and resistance in the lock mechanism, I have to determine the lock's weak spot and then, via a mouse

click, try to force the lock open. If the action is successful an audible click indicates this, otherwise the pin will visibly break. While this process becomes easier the higher the player character's skill level, the activity is still to some degree dependent on how I actually move the pin. Although this way of lock picking does not require tremendous manipulation skills it still requires some patience and experimentation; it requires concentrated rather than detached involvement.

More demanding is hacking in *Fallout 3* – at least with low skill. Whenever the player character attempts to hack a password protected terminal, she is given four tries to determine the right password. The starting point is a screen filled with nonsense key strokes intermixed with words which get longer the higher the difficulty level. Upon picking a word, the number of correctly placed letters in that particular word is displayed, leaving me to compare and rule out words. Since several words will mostly have the same letters in similar positions, the process involves trial and error. I love that this activity at the low levels required me to get a piece of paper to note down words and compare letters. As my avatar's hacking skills increase I do not have to use the paper anymore because fewer and shorter possible words are available. Once Molly has reached the highest hacking skill I am often able to guess the right password in one try based on the various words' more or less vague thematic link with the terminal's particular location. This gives me a very intense feeling of skill increase, and I believe a more involved one than if hacking had just required a mouse click.

Another menial task that has been given an extra dimension in terms of challenge is repair. In order to repair worn equipment spare parts are needed. While finding spare parts may not be difficult in itself it still requires effort and attention to that particular task. Looting this way gained a new dimension for me because even items with low

resell value might be useful for repairs. I find this implementation of menial tasks interesting for several reasons. Not only do these tasks require focused involvement but, at least with low skill levels, they even appear as small challenges in themselves. Moreover, the particular mediation offers a strong coupling between execution and expression layer. This effect is somewhat broken, however, by the game's response when I attempted to hack terminals or pick doors of the highest difficulty level while my avatar's skills were yet low. The "skill not high enough" message to some degree undid the great care that had otherwise been taken to integrate the two dimensions. Another way to communicate the same would be to make the tasks so difficult as to be impossible. The player would then have to find out for herself, for instance while hacking that the number of possibly matching words was too high to deduce on the few tries available. Probably, such as setup would frustrate most players. As computer users we have generally learned to expect clear feedback, but this way none would be given. The compromise in this case has been to break the immediacy with a hypermediated message, emphasising the mediated nature of the experience at a whole.

This implementation of menial tasks means that my feeling of achievement and involvement with the game is facilitated at the ludic and thematic level at once, something that heightens my engrossment and enjoyment. As already touched upon in the previous section, this increased requirement of focused player involvement does not necessarily equal an enjoyable and engrossing play experience for all kinds of players. Players with a very instrumental approach, for instance, may find the added details unnecessary and annoying, even to the degree where their engagement is broken.

Exploring tragedy, satire, and hope

For me the main attractions of *Fallout 3* are its open structure and the large simulated environment that invites exploration. Especially the wasteland with its scattered ruins of smaller and larger settlements, caves, vaults, lonely scavengers and settlers beckons me. With a good graphic card, I can see quite far ahead where remnants of various man-made structures always stir my curiosity. Strangely, despite the signs of destruction that are still visible everywhere, roaming the open landscape induces me with a feeling of freedom and a sense of opportunities awaiting just around the next hill. The urban ruins, on the other hand, do not have the same effect on me, probably because the large inner city buildings to a great degree are mere props. There is simply not the same excitement offered in terms of small wonders to accidentally happen upon.

The game encourages exploration both at the ludic and the thematic level. Exploration in terms of the ludic, results in detection of new areas where new quests may be picked up, loot, combat as hostile creatures and NPCs are encountered, as well as other encounters that may lead to increase in experience points. However, from a purely instrumental approach, fulfilling quests is a much better way of gaining experience points and level up than just exploring more or less at random. Hence, I believe that the thematic dimension plays a major role in encouraging exploration. The wasteland in itself is an always changing spectacle. Much atmosphere is created by the small details that can be noticed everywhere. Like happening upon some luminous mushrooms at the edges of a dried up pool at night, the trashed lawnmowers and barbecues outside empty family homes, or a small child's lunch box under a bed in an abandoned house. Hope, satire, tragedy are intoned in these sights. The obvious attention to detail also makes *Fallout 3* stand out from the often rather bland and generic

settings that often abound in computer role playing games. I cannot think of any other game where I would happen upon an ashtray and a pack of cigarettes in a turned over filing cabinet situated in the front office to the station master's office down at one of the metro stations. In me this find invokes images of employees hiding out of the manager's sight in order to get an unsanctioned break. I imagine how they enjoy this little illegal oasis. Until the bombs hit, that is.

Many locations do no offer much in terms of either quest opportunities or loot, but they still offer a variety of atmospheres and many embedded stories (Jenkins, 2002), some, fun, some tragic, some uplifting. For instance, the body of a man can be found the ruins of an old farmhouse. The man carries a letter to his brother, asking his forgiveness for stealing something apparently dear to the brother. A location where these items can be found is indicated and there are references to other loved ones. Hunting down the items, they turn out to be an old comic and some other books, boys' treasures. I have yet to encounter the brother, but he has been in my thoughts many times when I entered another small settlement. Another example of such story traces is an old factory inhabited with Chinese speaking ghouls in Chinese uniforms. Mostly, I explore when walking to and from quest locations, at other times a story snippet, a letter, or a radio signal makes me aware of somewhere else to keep an eye up for. That is also why I mainly move through the wasteland at foot, although I do use the map's short-cut function from time to time, for instance, when returning from completion of a quest. I also use the short-cuts as a means to avoid excessive travel through the inner city and especially already explored metro, which is a more safe way to approach inner city locations.

Great pains have been taken to create some sense of a continuous world. As the player character increases in level, random NPCs react to her in various ways, depending on her karma. Molly, thus, often receives various gifts from strangers because of her good reputation. Sometimes, interesting gossip can also be gleaned from conversations, though mostly the same things are repeated continuously. Another central device that creates a sense of continuity and progress is Galaxy Radio, one of several radio signals that the Pip-boy 3000 lets me chose between whenever the signal is within reach. Not only does Galaxy Radio play mid century evergreens, as the main quest, and even some of the major side quests, progresses the charismatic DJ Three Dogs will comment on these events. In this way, Molly's actions are reflected back through me through a different view point. As a result progression for me takes on a more personal quality beyond increasing in skill and administrating numbers when levelling up.

Identity and ethos constructions

The morality of choices, as I have already hinted at, appears as both a central theme and mechanism in *Fallout 3*. As mentioned earlier, are several dialogue responses often possible, some more friendly, hostile, timid, than others. This is especially the case in relation to quest givers and NPCs involved in quests. Picking answer options here is to a great degree the thematic, and optional, part of ethos construction invited by the game. Some responses, however, will also affect the ludic by making quests available or unavailable. Another ludic element of dialogues is the opportunity to lie in order to gain or escape something, which sometimes becomes available. In most cases this requires high charisma and speech skills, though sometimes alcohol and other items may

increase these temporarily. Special dialogue options may even be made available due to certain perks. Dialogue options typically offer “evil”, “good” and “neutral” answers, and it is rarely difficult to see which category a given answer is supposed to belong to. This is a somewhat crude way of offering players the freedom to define their characters to their liking. It has also been done countless times before and it would be interesting to see other ways of offering somewhat interesting choices for constructional play. The question of the moral flavour of choices does not end with the, mainly, thematic dialogue options. One of the game’s central mechanisms is a karma system.

Starting out with a neutral score, the player character is given positive or negative karma points for a variety of actions. Killing very evil characters[30], for instance adds 100 karma points, while stealing from non-evil characters or factions subtracts 5 karma points pr item. The player character’s karma affects NPCs reactions, so apart from the thematic aspect of further constructing the identity of my character, karma also has a saying in which potential companions I can recruit, and how I am welcomed in various places. Since I always end up playing do-gooders, I know that good karma has positive side effects, such as random NPCs offering small gifts at intervals. Anyone who both wants to steal and at the same time care about their reputation should not have to worry, however, as it is possible to donate to various “churches” or offer purified water to thirsty wastelanders in exchange for positive karma points. As with so many other things, karma is, of course, something that can be bought. It seems that Bethesda at once want to be “responsible” by letting, for instance, mindless violence against innocents, have repercussions – in so far as bad karma can be seen as that – but at the

[30] I am not sure how the game defines “very evil”, but it is an interesting category that further shows the game’s obsession with morality of the black and white rather than “it’s complex” variety.

same time do not want to let the actions beknow that at the same time there are easy ways to appease the system. While I am personally more in favour of letting players interpret the meaning of their own actions, for instance, in terms of evil or good, the karma system offers something to play in terms of identity construction. Both negative and positive karma blocks some options while making others available, ensuring that picking neither path provides a superior strategy.

Various perks that can be chosen upon levelling offer other means for character construction both at the thematic and ludic level. Most are mainly related to instrumental play, but two in particular are even interesting in terms of rounding the player character. The “child at heart” perk, thus, promises to improve my interaction with children, offering special dialogue options, the other “black widow/lady killer” seeks to enhance interactions with the opposite sex. Curious as I am, I did pick both perks. I enjoyed extra dialogue options, both for their contribution to deepening some stories, but also for the benefits of easier bonding they offered in some cases. The “black widow” trait, on the other hand had less interesting effects. In fact, one of the small annoyances I have come across as a female player when playing *Fallout 3*, is that the game seems to have been designed foremost with a male player character in mind. Right from the setup of various situations in the vault during the early quests, where there are several confrontations with a gang of boys and rescues of another girl, to encounters with the other sex. Although there were plenty of males that Molly might have developed a romantic interest in, but that never became an option. On the other hand, most bars had female prostitutes, who catered to both men and women. If Molly preferred male company, however, there was nothing to be had.

Boss battle upside down

I began this analysis by discussing the satirical juxtapositions offered throughout the game's opening. When the time for the final confrontation between the Brotherhood of Steel, whom the player character ends up aligning with, and the Enclave, which is the remnants of the American government, ensues there is another moment of great satire. The Brotherhood has recovered a pre-war robot, build to take on communist China. In a destroyed world that has suddenly become very local and small, because travel more or less happens on foot, the robot's transmission of propaganda slogans while it battles through the rows of enclave soldiers and bots, underlines how quickly our worries may change fundamentally. In this case from branding wars between nations to brute and plain survival.

One thing I find particularly interesting about this last battle is that it turns gameplay conventions upside down. Usually, the last fight is the über boss battle. It is the most difficult confrontation of the whole game, requiring players to use the whole repertoire of moves, techniques, and knowledge they have build up during playing so far. Instead, in *Fallout 3* I am nearly invincible in my power armour, walking behind an enormous war machine. There is nothing for me to do but follow, and the battle becomes a spectacle rather than a fight. The real difficulty emerges with the choice I must make in the pump chamber once the goal, a research facility, has been secured. Here the possible challenge is not one of demanding activities but rather a stimulating one, where I am asked to make my final construction in terms of the player character's personality, wants and fears. In order to activate her dead parents' life work, a cleansing unit that will ensure clean water to everyone in the capital area, someone has to enter the radiated chamber where Molly's father died to protect the password to the unit. I am

given the choice between letting my avatar or an NPC suffer fatal radiation damage. In my first playing I did it myself (the other way around seemed wrong) and never expected the consequent end. I have been quite careful with radiation so far during playing, and now I give my avatar a large dose of anti-rad chemicals. Still, the image on the screen blurs, the controls become slow and unresponsive, and Molly slowly topples to the ground as the world spins around her. Thinking I have not moved fast enough, I quickly reloaded and try again, this time with even more protection. Again Molly dies. This time I let the subsequent cut-scenes play and realise it is the ending that is meant to be. Not only in terms of closure, but also because the game ends here. Whether I choose to send in my avatar or a NPC into the chamber there is nothing beyond that but cut-scenes.

I think it is a brave and stimulating touch that Bethesda Soft Studios here turns a pop cultural convention upside down – the hero is never supposed to die and rarely does in digital games, unless the player has picked the wrong strategy or otherwise failed. Since these cases are dead ends both in terms of ludic and possible story progression, they are usually bracketed as transitory lapses. Likewise, open world computer role playing games are not supposed to end. However, in the case of *Fallout 3,* the game ends no matter how the player chooses to handle the last part of the main quest. This unexpected turn of events is reminiscent of the convention breakage in *Fallout* where the player character upon completing the main quest is expelled form her home vault instead of rewarded. The consequent end is in my opinion a bold move, which defies the escapism offered by a game world that continues more or less unchanged as long as I will it, while the player character becomes more and more invincible. Instead, while the game world undergoes dramatic changes as a result of my actions, an end is put to my

avatar's development. This pushes me right back into my own fragile existence. There I may mourn the areas I had yet to explore and the tasks I were yet to complete, which I would, perhaps, have completed if I had just known. But lured by convention I did not, thinking there would always be time later. Thus, the ending puts not only gameplay conventions but even the terms of my existence in perspective.

One thing about the ending that many players complain about, but that I have not experience myself, is that one of the player character's possible, the super mutant Fawkes, is resistant to radiation and could easily enter the chamber without any harm befalling him. Sending him in, then, would be the most prudent choice, especially bearing in mind that he has entered strongly radiated areas on behalf of the player character before. However, if Fawkes accompanies the avatar to the research station, he will not enter the radiation chamber, saying that is not for him to do. This is so inconsistent with his other actions that no invocation of fate can explain it off. Here the developers' desire to tell a particular story clashes extremely inelegantly with the choices players will likely perceive as being available to them. A more graceful solution would have been to one way or other make sure, that Fawkes cannot accompany the player character to the research station. Using scripted events, the Brotherhood could disallow him from coming along for the battle, he could be called off in search of old friends, or simply be killed at the beginning of the battle as his function in the story has played out. In this way the glaring inconsistency of his refusal would not be directly associated with the authoritative shutdown of the game in the ending. While the ending would probably annoy many players no matter what, I think forcing the issue so obviously in the case of Fawkes makes it even harder to accept for many.

It has to be mentioned that the ending is also economically motivated. *Fallout 3* has a level cap of 20 and ends with the completion of the main quest. Subsequent expansion packs, that have to be bought and downloaded separately, raise the level cap and also enable players to play on even after completion of the main quest. This I find disappointing because it does much to diminish the bravery of making a purely artistic choice in a mainstream computer game. Still, *Fallout 3* is in my opinion one of the few mainstream computer games that aspires to be art, foremost due to its eminent satire and because it engages with current and relevant questions.

While the choice to end the game so abruptly and unconventionally makes artistic sense, in relation to purely instrumental gameplay it may be counterproductive because it does not necessarily offer much of a winning feeling and it, furthermore, ends the game. At least it seems that every forum where the game is discussed is full of complaints about the ending. The one below is quite typical:

> "# 3 it screws tons of people (including myself) who thought it would just be like oblivion, get the main quest over with, and just fiddle with the random other things for fun, but NOOOOO, i went ahead and beat it, and am unhappy with what it leaves you, so now ive got to go and start a whole new character and do all the little stupid stuff i did on the first one just to get to where i want to continue with the side quests. awful. they should seriously patch this and make it so you can send that chick inside, have her disarm it, and you go about your life of PWNING and having fun." (playstation.com/general board)[31]

This player, like so many others, feels cheated because he "beat the game" only to be punished for it. Indeed, part of the reason for my enjoyment of the ending is certainly,

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31 http://boardsus.playstation.com/playstation/board/message?board.id=rpg&thread.id=386273&view=by_date_ascending&page=1

that I did not try to beat the game but took my time exploring and doing everything else but the main quest. Playing style and expectations, then, play a crucial role for whether the ending is experienced as fitting or horrible. Those who complain about the ending do it from an instrumental perspective while those who find that the ending makes perfect sense do it on an artistic basis. Since *Fallout 3* is "a game in the middle", I think both a traditional victorious ending as well as the one provided are acceptable and in line with the expectations set up by the game and its genre. Had the game been much further towards the ludus pole, the latter would have been too badly matched with the rest of the game.

While I have nothing but praise for the choice to end the game so unexpectedly, I feel the cut-scenes that play after this end are less satisfying. As mentioned at the beginning of this analysis, the ambiguity and indeterminacy intoned by some parts the game are to some degree undermined again through the authoritative interpretations that is offered of the game's themes. This is also the case when it all ends, where my actions as a player are evaluated in the closing cut-scenes. Along the line of the previous games this does not happen at the ludic level in terms of score, but at the thematic level by detailing the outcome of some of my choices. This is all well. What for me ruins some of the openness is the moral judgement my actions are also exposed to. In my case I was praised as a self-sacrificing hero who "refused to surrender to the vices that had claimed so many others",[32] which I took as a positive, but also somewhat reductive, assessment. During my playing, Molly, for instance stole things she did not really need and even

[32] Part of the closing voice-over, relating some of the consequences of the player's actions. A full description of the various endings can be found, for instance, at fallout.wikia. (http://fallout.wikia.com/wiki/Fallout_3_endings)

caused the death of an innocent man be meddling in things she could have stayed out of. However, the moral evaluation, which I do not mind so much in itself, may be conflicting with the interpretations that players may have made of their own playing in terms of their character's ethos. Much of the individual construction, thus, may be overruled this way. (Sicart, 2009, p. 211) Since the game has otherwise tried to give players free reign, I think that is a shame. It would have been fully possible to still show the effects of players' choices without exposing them to moral judgement. Not in order to avoid reflections about ethics and morale, but rather in order to encourage players to construct their own interpretations on the basis of the shown results. A strong, authoritative interpretation undermines this.

And so it ends

Fallout 3 is a more dark game than its predecessors in the series, which appeared more comedic than satiric, and the game manages to both honour its inheritance and further develop the brand. The game's satirical approach never shines brighter than in the juxtaposition of ordinarily unrelated elements, such as consumer goods, the homely, or technological advancements set against a backdrop of destruction and anarchy. This aspect of the game is not only cosmetic, but may even function as a possible stimulating challenge that may cause reflection or, at least, put current affairs into perspective.

The ludic and thematic dimensions are both highly prioritised in *Fallout 3*, even to a degree where the thematic overrides ludic concerns at the end of the game. In several cases the two dimensions are more integrated than what is normally the standard. Thus, menial tasks like lock picking and hacking are both simulated in details in such a way that it blends into the game's fictional world. This is also more or less the case with the

design of the user interface related to in-game functions. Still, the thematic is not offered as the sole basis for decision making as done in *The Witcher*. While choices at times may be part of the construction of character, an element that is at once ludic, in terms of karma points, and thematic, in terms of character identity, in many cases their consequences are broken down into an instrumental translation.

While there are certainly things that can be criticised, I still see *Fallout 3* as a well-rounded game with a good integration between the ludic and thematic and a broad approach to challenge. The elements that truly win me over, however, are all thematic. Namely, the use of unexpected juxtapositions, the retro-futuristic setting, the art direction in general, and the consequent end. Especially the first and last, I think, indicate that computer games are maturing, or in some cases going back to their roots, in terms of their thematic qualities. Since *Fallout 3* proves that this expressive development does not have to happen at the expense of engaging ludic mechanisms, but that the ludic and thematic, rather, can be successfully integrated even in relation to menial tasks, also makes me think that computer games can, indeed, aspire to be art.

Conclusion

Throughout this thesis three areas have been central: the relation between game mechanisms and surface expression, the question of how to holistically approach computer games, and that related to accessing computer games for analysis. First I briefly sum up the answers I have presented to these questions. As the focus here has been both on theory and method construction as well as application, I seek to evaluate the proposed concepts and approaches in relation to the analytical work as part of this summary. Lastly, I discuss any wider perspectives I see for the approach presented in this thesis. In particular, I suggest two areas that I believe may benefit from the conceptualisation of challenge as presented here.

Conclusive summary

I believe that the ludus-paida continuum as presented by Caillios is a good basis for approaching the relation between computer games' mechanisms and their expressivity. The variances that such a span of different degrees of regulation and improvisation inevitably allows for, clearly emphasises that computer games come in many forms. The closer towards the ludus pole a computer game is, the less relevant for gameplay is its thematic dimension likely to be. This is due to the highly regulated and strictly goal-oriented structuring of such games. Hence, while the understanding of game mechanisms as always being the dominant factor in relation to a game's expressive elements in most cases will be accurate for games farthest towards the ludus pole, this is not necessarily the case even for highly regulated games and certainly not for those in the middle of the continuum. In order to distinguish between the overall representational

side of a computer game and its expressivity as well as between mechanisms that govern the game and those that govern the software, I have suggested it may be useful to use slightly different terms, namely the thematic and the ludic, respectively. These two dimensions both require players' sense-making, the first in terms of cultural meaning, the latter in terms of functionality and gain. Tensions may appear between the two meaning layers, but this is to a great degree a feature of either game design or player approaches rather than a natural given. Thus, in order to avoid unnecessary clashes, a pure ludus game may require a more simplistic and interfering thematic dimension than a game in the middle of the continuum.

The benefit of my approach compared to other conceptualisations, notably Juul's notion of rules and fiction, is that it does not assume a natural hierarchy between the two. Rather than seeing game mechanisms as all function and the thematic as being defined by its lack of function, this view assumes both are constructed to contribute to the overall experience of the game. Likewise, the model does not rule out possible overlaps. Thus, an element may have both ludic and thematic functions at once, or move from one dimension to the other through transformative gameplay. The conceptualisation, moreover, does not take any potential fictionality or narrativity of thematic elements as givens, but rather leaves this as a question to be determined from game to game. Finally, and most importantly, I hope this conceptualisation serves to emphasise the doubleness of game meaning. Rather than dismissing any signification related to the game's surface expression as either totally irrelevant "window dressing" or, just as problematic, regarding it as the game's only meaning, the thematic and ludic may instead be approached as two different meaning layers that rely on wholly different

codes. Sometimes the two dimensions are well integrated, at other times they are at odds, depending both on a given game's design as well as on player approaches.

The analysis of *The Witcher* demonstrates how the thematic dimension may be utilised not only as an important meaning layer in a game design, but even be offered as the main resource for central player decisions. This is achieved by not offering any utilitarian interpretations of the consequences of major choices players are requested to make. Instead, a richly simulated and well described world ripe with ambiguities is presented as the only other resource to base decisions on. Since the advances of one choice over the other are at the same time balanced, it is not even possible to make an utilitarian interpretation in hindsight. Because this ambiguity is present both at the ludic and thematic level, the two reinforce each other, at the same time undermining the possibility of a purely point-optimising approach. Another device that I have called dimension-crossing is also used to bind the ludic and the thematic closer together. Here, an element that has its main function in one dimension is utilised as part of another dimension. It is but used subtly in *The Witcher*, but it will be interesting to see the results if other game developers explore a similar approach.

The analysis of *The Witcher* serves to a great degree to illustrate some of the controversial points made during the discussion of the relation between the ludic and thematic. In this regard, it the most limited and partial analysis of the three presented here. This is a remnant of a previous structuring of this thesis, where each theory or methodology chapter was intended to be followed by an illustrative analysis. The analysis serves its function, namely to emphasise my point that the principally indeterminate relation between the ludic and thematic, is a feature of design rather than any "nature of computer games". Still, the game could well have sustained a full

analysis of all its features. One of the main reasons this has not been addressed is the rather late change of structure and the time limits this implied.

If, as I have argued, it in many cases makes most sense to approach computer games as integrated wholes rather than a set of formal mechanics adorned with random coatings, there is a need for an approach that can account for the function of both ludic and thematic elements. The notion of challenge, I suggest, provides such a focus. Importantly, the concept has to be understood broadly both in terms of demanding situations and stimulation, as the general definition of the word also indicates, rather than narrowly in terms of handling difficulties as is often the case within games research and design. While challenge as a demanding situation contains competition and problem solving, challenge as stimulation is related to more creative play, such as role playing, exploration, and construction. Interestingly, what from a narrow challenge view may look like cheating, such as finding features to exploit, in a broader understanding is mainly players engaging in the stimulating challenge of exploring the limits of the game system. Required for both types of challenge is a measure of uncertainty of indeterminacy, whether this implies a potential for transformation or that something is at stake. Likewise, an approach based on challenge has to overcome another misguided notion, namely that predefined goals alone create challenges. Rather, fixed goals may function as motivators. Whether someone is actually challenged in a given situation depends fully on the meeting between the engaged subject and the arrangement of the situation. All games can do is to provide possible challenges that may become actualised in the meeting between player and game.

As the comparative analysis of *Titan Quest* and *Oblivion* as well as the analysis of *Fallout 3* shows, regarding computer games in the light of a broad understanding of challenge ascribes function to a much wider range of elements than what is typically the case in much game-centric research, but without falling into the trap of taking the surface expression as the only meaning of the game. Some examples are the stimulating potential of paratexts, character customisation, opportunities to role play, even the role of spectacle in exploration. While the notion of challenge adds a variety of expressive and creative actions to the repertoire of interesting gameplay actions, it is not partial to computer games with such features. My criticism of *Titan Quest*, for instance, is related to the inclusion of elements that could have afforded more stimulating challenges but do this only half heartedly, rather than to the game's overall focus on challenge as a demanding situation. While, on the contrary, the problem with *Oblivion* may be that its levelling system favours instrumental play over other approaches, despite all the opportunities offered for varied choices. Also *Fallout 3* shows inconsistencies between the freedom offered to players with regards to most aspects of the game and the moral judgement that players actions are subjugated to in the end. Here any indeterminacies, the requirement for challenge as stimulation, are effectively being overruled.

I believe the notion of challenge as presented here may provide both an overall analysis focus, presenting questions related to challenge, as well as a conceptualisation of computer game elements that may be useful even for analyses that seek to answer more specific questions. In this case it has provided both. While the comparative analysis derives a focus from the comparison, I believe the *Fallout 3* analysis could probably have benefited from a better defined research question. In both cases, however, the conceptualisation of the two types of challenge, especially coupled with

the notion of the ludic and thematic, has lead to plenty of interesting issues to discuss. For instance the different kinds of engagement a computer game may invite, depending on the balance between various possible challenges, but also the relation between save game formats and the creation of creating an environment that encourages exploration and experimentation.

The last central topic for this thesis concerns the generation of data for computer game analyses. I have argued that computer games can only be accessed through someone's playing, whether directly or via second hand sources. The researcher ought to always know the game she analyses, and this makes using ones own playing supplemented with the accounts of others a more practical solution than using observations of other players. Neither one or the other is transparent to the researcher, in this respect both are equally problematic. The more complex and low fixity a game is, the more the outcome of given uses may differ from each other. Since an actual player cannot be avoided, I suggest this element of gameplay has to be incorporated in the analysis either as an analytical construct or as a clearly subjective position. The first may be useful when the properties of a given game are the central focus, while the more subjective approach, on the other hand, may provide a more rich account of the experience of playing a given game. This position is also more likely to include an awareness off the various ways in which the personal may influence the analysis, which may, for instance, be glossed over if the researcher approaches players as abstract entities without any considerations about what this abstraction is based on. While I personally, find that the second option may be the one with the most potential of contributing an interesting and deep analysis of a computer game, I will admit that I have found using the analytical construct of the

implied reader much easier. Not only is it much more in line with the detached, critical stance that an academic schooling more or less requires, even within the humanities. The more personal approach also makes me much more visible and vulnerable as an individual.

The intention with this thesis has not been to create a general theory of computer games. Rather, the suggested approaches are foremost aimed at “games in the middle” or low fixity games. That is, more loosely regulated games that allow players some freedom to bend the game to their inclinations rather than only the other way around. Still, especially the broad conceptualisation of challenge, but even to a lesser degree the notion of the two meaning dimensions as well as the heightened attention to the role of players, may find fruitful application in relation to all kinds of computer games. The first as an analytical focus, while the two latter may mainly serve as reminders to not take the characteristics of particular games for natural givens.

Wider perspectives

I believe that the coupling of this thesis’ two main conceptualisations, the ludic and thematic with a broad approach to challenge, may find wider applications than the aesthetic analyses engaged in here. Especially in relation to game design, I see a lot of potential in this perspective. Generally, the notion of challenge as stimulation, offers a perspective where even thematic elements may be seen as having a function in a game design apart from the purely decorative. Based on the prominence of thematic elements in some current games, this awareness seems to already be spreading, but expressing the principles explicitly as done here, may hopefully serve to further such developments. So

that instead of adding “features” such as stories, avatar customisation, opens worlds to games just because that seems to be in demand, developers may, instead, think about the possible challenges offered by a given element. There is a big different between doing one or the other, as also demonstrated in my analysis of *Titan Quest*.

More specifically, some of the insights offered here may be fruitful in relation to educational games as well as other games that have an agenda beyond entertaining. I want to emphasise two observations especially, namely the different ways of closely integrating the ludic and thematic I have pointed out in relation to my analyses of *The Witcher* as well as the various ways of encouraging focused and detached engagement respectively in *Titan Quest*, *Oblivion*, and *Fallout 3*. While there no doubt in my mind that players learn something by playing digital games, for me the pivotal questions are what they learn and whether digital games are more efficient than other means. A documented problem (briefly discussed in chapter three) with many educational games seems to be that they foremost teach children how to play the game while allowing them to remain unmindful of the particular subject matter the game is designed to convey. Most likely, these games offer instrumental interpretations of the gameplay choices, which allow players to ignore the thematic aspect more or less, because understanding this dimension of the game is not directly needed to be successful and progress. However, taking *The Witcher*’s integration of the ludic and thematic as a model, it is possible to design games that force players to consider the thematic dimension. It is a matter of not offering instrumental interpretations of central elements, as this is more likely to make players depend more on the thematic dimension in their meaning making.

The lesson to learn, particularly from both the comparative analysis and the observations made in relation to menial tasks in *Fallout 3*, is how respectively focused and detached engagement may be encouraged. Thus, the removed view point of *Titan Quest* coupled with the game's pace and the gap between what is simulated at the ludic and thematic level, encourages a rather detached engagement with a main focus on more abstract elements such as perfecting character build. This may lead to players entering into a flow-like state, as they become engrossed in carrying out the right moves at the right time. *Oblivion*, on the other hand, offers opportunities both for taking a more detached stance towards the game, but at the same time via a simulation that is more detailed both at the thematic and ludic level also invites a more concretely involved engagement. This close coupling between simulation at the ludic and thematic level is even more pronounced especially in relation to the menial tasks in *Fallout 3*, which also require focused involvement. This is in both games coupled with a greater number of situations where players are required to make many kinds of deliberate choices. I see both the focused involvement as well as the many choices requiring deliberation as ways to interrupt flow, something that may be necessary if one seeks to encourage reflection.

Another way to encourage reflection is to make sure that no utilitarian interpretations are offered at the ludic level coupled with ambiguity at the thematic level, as it has been done in *The Witcher*. This deliberate use of indeterminacy leaves players in a situation where they are more likely to make their own assessments of the presented situations. In that respect, *Fallout 3*'s ending is a good example of how to undermine a reflection process.

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