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# The Philosophy of Computer Games

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# The Philosophy of Computer Games

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# Preface

This book is the result of interdisciplinary work done on philosophical issues raised by computer games over the last few years.

In 2005, a group of Norwegian philosophers contacted the Center for Computer Games Research at the IT-University in Copenhagen, with a view to organizing a seminar on ontological issues in computer games. The seminar was a success, and from then on a network of philosophers and game theorists emerged as new events were organized in Reggio Emilia, Potsdam, Oslo, Athens and Madrid. (cf. www.gamephilosophy.org).

It is remarkable that a phenomenon that has had such significant impact on human culture has not been studied for its philosophical implications to a greater degree than has so far been the case. We hope the present collection of essays serves to give an impression of the kind of work that can be done, and, perhaps most importantly, to provide a starting point for further discussions in the future.

Working on this volume has been a joyful, but also a long and demanding, process. We are grateful for the authors' willingness to contribute, and for their patience with our never ending stream of queries and demands. The contributions to this volume have been selected on the basis of blind peer review. We would like to thank the board of reviewers, and Maja S.M. de Keijzer at Springer, who conducted the review process.

John Richard Sageng
Hallvard Fossheim
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# Chapter 1
# General Introduction

**John Richard Sageng, Hallvard Fossheim, and Tarjei Mandt Larsen**

Over the last decade, computer games have received growing attention from academic fields as diverse as engineering, literary studies, sociology and learning studies. In this book, we aim to broaden the scope of this effort by bringing together essays dealing with philosophical issues raised by computer games. By doing so, we do not only want to contribute to the understanding of this phenomenon. We also wish to contribute to the establishment of a new philosophical discipline, the philosophy of computer games, capable of taking its place alongside such disciplines as the philosophy of film and the philosophy of literature.

The academic interest in computer games reflects their rapidly increasing cultural importance. Economically, they have in some respects overtaken traditional media like film or television. Several online multiplayer versions of computer games like *World of Warcraft* (2004) or *Happy Farm* (2008) have tens of millions of players, and some game worlds have real economies the size of small countries (Castronova 2001). Within certain age groups, many are likely to use more of their time on computer games than on television or films. The stereotype of computer games constituting the pastime only of adolescent boys is outdated, as players have diversified into different segments of the population. According to a recent survey, the average age of players in the United States is 34, while 26% of players are over 50, with 40% of the players being women (Entertainment Software Association 2010).

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Computer games are also a force in creating new social networks and forms of social interaction. This is perhaps most evident in the case of massive multiplayer online games (MMO's) which may involve large numbers of people situated around the globe cooperating and interacting in unprecedented ways. Around these and other games there exist large communities of players who have developed specialized knowledge for appreciation and evaluation of their game worlds and game world activities.

While the most prominent role for computer games has been in popular entertainment, they should also be appreciated for their own unique dimensions of artistic expression, design challenges and creative possibilities. Although it remains open whether computer games can aspire to the status of high art, they are clearly significant aesthetic accomplishments in their own right. The creation of such games is the result of combining high level artistic and technical insight in complex development processes involving a large number of people and spanning several years. A look at the history of computer games shows how they have rapidly evolved from simple gameplay to a dizzying array of genres and play styles. Among these developments we find innovations in artistic experimentation, learning and political persuasion. In the game industry, it is a common contention that these possibilities have only just begun to be explored.

The fact that computer games have risen to such prominence after their feeble beginnings only a few decades ago indicates that they have a peculiar appeal and relevance to human interests. It may perhaps be said that such games are culturally significant and important because they occupy a new and distinctive place in the human life form. On the one hand, they differ from traditional representational media by mediating meaning, knowledge and experience trough the participants' own actions. On the other hand, they differ from the settings of ordinary life, because they offer more or less closed off spaces dedicated to refinements and idealizations of the aims we find most worthwhile pursuing.

Given their cultural impact, it is clear that computer games constitute an important object of academic study from a number of perspectives: sociological, psychological, juridical, economical and political, to name just a few. But why should they also be important from a philosophical point of view?

There are two main reasons why a philosophy of computer games is called for. First, given the emergence of academic research on computer games, there is a need for critical examination and clarification of the basic concepts on which this research typically draws – notions such as rules, simulation, virtuality, immersion, play and gameness. This need is all the more pressing since much research on computer games is highly interdisciplinary, and thus in need of a well worked-out conceptual framework within which the contributions from the various disciplines may be combined and assessed. With its history of conceptual analysis and clarification, philosophy has a lot to offer in this regard. In addition philosophy has a rich tradition of substantive theories on central notions like fictionality, representation, rules, action, and play.

Second, computer games present a context in which many of the questions from traditional philosophy may be pursued in novel ways, with the prospect of providing new and interesting answers to them. Philosophy as an academic discipline is not, or not simply, directed at perennial intellectual questions, but is

fundamentally shaped by cultural and historical circumstances. Many of the questions that traditionally have been asked about individuals and their relations to their environments, for instance, can be asked about the player of a computer game, whether it concerns matters of metaphysics, aesthetics, or ethics. The distinctive features of computer games (or sometimes of games more generally) may require modified answers with regard to some of these issues.

A philosophy of computer games, then, has at least two central tasks: to clarify and critically evaluate the basic concepts of computer games research, employing philosophical resources of various kinds; and to address traditional philosophical questions as they present themselves within the context of computer games, thus furthering philosophy itself.

As with other philosophical disciplines, the themes and problems of the philosophy of computer games will, to a great extent, be dictated by the nature of the object of study. Of course, the question "What is a computer game?" is itself a matter for computer game philosophy, and therefore not one that we can hope to settle in an introduction like this. That said, we now want to canvass some existing conceptions of the nature of computer games, so as to indicate the nature of some of the philosophical issues these phenomena give rise to.

First, however, a brief historical overview of the development of computer games is in order. Like other meaningful forms of expression, computer games may be generally characterized in terms of a distinction between their meaning and the vehicle of that meaning, in this case an interactive content and a physical system mediating information to and from a variety of interfaces.

The development of the physical gaming system took place along two paths. On the one hand, games were developed that made use of general purpose computing devices. At first they were used by programmers or technicians of the early generation of computers, such as the first mainframe systems which sometimes sent their output to teletype machines rather than screens. With the advent of personal computers, games approached the mass market by being implemented on computers like the IBM PC, Apple Macintosh, Sinclear ZX81 or Commodore 64. As general purpose computing became available on handheld devices, computer games entered this arena as well.

On the other hand, the existence of computer games quickly gave rise to special artefacts dedicated to providing gaming experiences. The first specialized computer games were found in consoles that were located in arcade halls and other public places. Home computer gaming on dedicated hardware was initiated by console systems like the Magnavox Odyssey and Atari systems, of which Playstation 3, Xbox 360 and Nintendo Wii are the present-day heirs. Further, there are specialized handheld devices ranging from Mattel Auto Race to present day Nintendo Gameboy or Playstation Portable. Both the input and the output of the physical system have been extended from the simple controllers to devices for balance, kinetic feedback, and even GPS based location input.

With regard to the game content for these devices, there has been a gradual diversification and innovation of games and gameplay-types from the simple earliest instances. The earliest games either replicated existing rule-based games such as *Tic-Tac-Toe* or Chess, or implemented the simple motor-skill

gratifications offered by specialized graphical environments (*Tennis for Two* 1958; *Spacewar!* 1962; *Pong* 1972). From these simple beginnings a wide variety of game genres and gameplay styles have evolved, only a few of which can be mentioned here. The earliest text based adventure games (*Colossal Caves* 1976; *Zork* 1977) offered participation in a fictional story and explorations of the game world. Strategy games (*Invasion* 1972; *Herzog Zwei* 1989; Sid Meier's *Civilization* 1991) offer players the option of applying long term planning and problem-solving. Role playing games (*Dragon Quest* 1986; *Final Fantasy* 1987; *Ultima* 1980) let the player assume the roles of characters in order to act out these roles within a narrative. Action games offer physical and reaction-time challenges in a variety of subgenres such as fighting games or shooter games (*Heavyweight Champ* 1976; *Wolfenstein 3D* 1992). Simulation games simulate a wide variety of aspects of a real or fictional reality, such as driving, dating, city management, sports and so on (*SimCity* 1989; *Microsoft Flight Simulator* 1982). Music games challenge the player to follow sequences of movements or match the pitch of a song. (*Guitar Hero* 2006; *SingStar* 2004).

Common terms for the games at issue are "computer games", "video games", "digital games" and "electronic games". These terms, however, tend to pick out somewhat different classes of objects. In the consumer market, the most widely used term is probably "videogame", but this word is used in more than one sense. Some will use "video game" exclusively about games played on game consoles, while others use the term about games played on personal computers and handheld devices as well. The term "electronic games", on the other hand, might include board games with electronic circuitry, some modern slot machines and some electronic toys. The common term "digital game" includes sound based games and games that outputs to a visual screen, but excludes analog computing games like *Tennis for Two*, one of the earliest computer games. In some contexts in the marketplace, the term "computer game" is often taken to mean a game played on a personal computer and not on console systems.

While all of these usages occur in the present volume, the term "computer game" has been chosen for the title of this anthology and the expositions of its themes, but only in the general sense of a game played with the primary aid of computing power. This indicates a subject matter broader than merely games whose primary role is to present moving images on a visual display, including, as it does, purely sound-based games and some games called electronic games. The term "videogame" seems in fact to be used in this general sense as well, despite the fact that not all the games thereby included have a video interface. For our purposes, however, "computer game" is more adequate, since it more accurately indicates the range of phenomena at issue, by highlighting a feature basic to the explanation of the characteristics to be considered.

What, then, are the central characteristics of computer games, the characteristics that serve to determine the subject matter of a philosophy of computer games? On what could be called a nominalist or anti-essentialist conception, the question of central characteristics is ultimately misguided, computer games having no more in common than the fact that they are all, for some reason or other, run on

computers. Games researcher James Newman, for instance points out that there is an "enormous variety of game types that comes under the broad umbrella of 'videogames', 'computer games' or 'interactive entertainment'" (Newman 2004) and appears to think that the only feature these things have in common is that they are associated with a particular hardware platform. He prefers to lean on a characterization offered by Frasca, according to which computer games are "any forms of computer based entertainment software, either textual or image based, using any electronic platform such as personal computers or consoles and involving one or multiple players in a physical or networked environment" (Frasca 2001).

Despite the great variation among the things we call computer games or video games, many have implicitly or explicitly assigned particular roles to them beyond the fact that they are implemented on computing devices. One of the oldest debates in the short history of games research is the debate between narratorologists and ludologists. The debate concerns the relationship between non-interactive literature and computer games, and grew out of the need of the emerging discipline of game studies to position itself in relation to literary studies (cf. Frasca 1999). According to narratologists, despite being based on "interaction" between a player and the game, computer games should not be regarded as essentially different from older types of media like film or literature. The element of interactivity does not, they appear to hold, make for a radical difference, since any game can be analysed as a form of narrative whether or not it unfolds as a result of interaction (cf. Murray 1997; Atkins 2003).

According to ludologists, however, who aim to defend computer games as qualitatively distinct from non-interactive texts or representations, the key to understanding them is the notion of play or game, and for this reason they seek to develop a theoretical framework based on games (Aarseth 1997). While ludologists are not committed to denying that there is an element of narration in many games, they will emphasize that being a game is what makes computer games a subject matter distinct from non-interactive media like literature or film.

A further option is to regard games as interactive fictions, thus stressing that games, whether or not they involve narrative structures, typically rely on visual representations with fictive content (Tavinor 2009). This position should be distinguished from the narratological conception, since "telling a story" is a different category from "being fictional". It is possible to make visual representations of fictional objects without telling a story, and it is possible to tell a story without being fictional.

In addition to the conceptions already mentioned – the nominalist, the narratological, the ludological and the fictionalist – there is also what could be called a motivational conception, on which computer games are artefacts whose aim is to provide artificially sculpted motivational systems for the purpose of play (cf. Lankoski and Sageng in this volume). This kind of view is compatible with the ludological and narratological conceptions, but it provides a different perspective or emphasis on the role games ought to have. On this view, the central role of the game is to provide what game developer Sid Meier calls a "series of

interesting choices" within the constraints of the game world, often through the design of experiences, emotions and knowledge supporting these choices. Thus, computer games differ from non-interactive fiction in providing reasons for actions rather than imaginings for consumption. They differ from traditional games, on the other hand, in the vastly improved freedom that computing gives in the kind of reasons for actions that can be implemented. While sports and board games provide only limited and often abstract motivational systems, computer games have a canvas provided by the entire human life form to draw on, whether it be physical challenges, ethical dilemmas, strategic affordances, interpersonal relations or social dynamics.

It goes without saying that these conceptions of computer games overlap and raise various problematic points. To mention one example, an influential idea is that computer games may be seen as hybrids, poised between fictions and traditional games. According to such a view, computer games occupy a halfway place between traditional representational media and traditional rule based games (Juul 2005). Computer games thus make use of both fictional worlds and the rules for gameplay found in traditional games.

It is also a complicated matter whether computer games merely constitute a form of game, on a par with sports or board games, or whether they should instead be regarded as significantly different from them. If the former, this might in fact imply that the most correct academic focus is the study of games more generally rather than computer games specifically. So-called transmedial games are a case in point, since they remind us that many ordinary games may in fact be played on a computer and are often very well suited for that purpose.

At any rate, the four conceptions of computer games we have outlined offer different implications for the nature of the philosophical issues that arise. On a nominalistic or anti-essentialist conception, the philosophical issues will not have anything in particular in common, but will merely represent an aggregate of various questions that as a matter of fact are raised by the category of computer games for as long as it is deemed to be of social or cultural significance. On a narratological or fictionalist conception of computer games, the problem area of a philosophy of computer games will no doubt belong to the traditional area of aesthetics, while a ludological conception will invite questions that relate to the nature of gameness and play, and their relation to real life and real concerns. On a motivational conception, the central philosophical tasks would be related to how this sort of motivational system requires different questions and answers compared to the example materials of traditional philosophy, which has been based on natural settings, rather than the highly artifical and idealized settings of computer games. It is too early at this point to say exactly what the defining problems of a philosophy of computer games will be, since this is something that can emerge only from actual discussions in the intersection between games study and philosophy.

The book falls in three parts. The first, "Players and Play", takes as its point of departure the basic and irreducible fact of play as definitive for gaming. "Ethics and Play" then considers the moral and social aspects of gamers' agency. The third and final part of the volume, "Games and Gameworlds", asks about the reality of the gaming environment.

## Games

*Colossal Caves*. 1976. Kentucky.
*Dragon Quest*. 1986. Nintendo, Square Enix, Japan.
*Final Fantasy*. 1987. Nintendo, Square Enix, Japan.
*Guitar Hero*. 2006. Harmonix, Cambridge, Massachusetts, USA.
*Happy Farm*. 2008. 5 Minutes, browser based game, China.
*Heavyweight Champ I*. 1976. Sega, Tokyo.
*Herzog Zwei*. 1989. Technosoft, Sega Megadrive, USA.
*Invasion*. 1972. Magnavox Oddessey.
*Microsoft Flight Simulator*. 1982. ACES Game Studio, IBM PC, USA.
*Pong*. 1972. Atari, Sunnyvale.
*Sid Meier's Civilization*. 1991. MicroProse, USA.
*SimCity*. 1989. Maxis. Nintendo EAD, USA.
*SingStar*. 2004. Sony computer entertainment Europe, Playstation, UK.
*Spacewar!* 1962. Boston: Massachusetts Institute of Technology.
*Tennis for Two*. 1958. New York: Brookhaven National Laboratory.
*Ultima*. 1980. Apple II, Richard Garriott, Manchester.
*Wolfenstein 3D*. 1992. Id Software, PC, Texas.
*World of Warcraft*. 2004. Paris: Blizzard/Vivendi, PC.
*Zork*. 1977. Boston: Massachusetts Institute of Technology.

## References

Aarseth, Espen. 1997. *Cybertext*. London: The John Hopkins University Press.
Atkins, Barry. 2003. *More than a game: The computer game as fictional form*. Manchester/ New York: Manchester University Press.
Castronova, Edward. 2001. Virtual worlds: A first-hand account of market and society on the Cyberian frontier. The Gruter Institute Working Papers on Law, Economics, and Evolutionary Biology, Vol. 2.
Entertainment Software Association. 2010. 2010 Essential facts about the computer and video game industry. http://www.theesa.com.
Frasca, Gonzalo. 1999. Ludology meets narratology: Similitude and differences between (video) games and narrative. http://www.ludology.org/articles/ludology.htm.
Frasca, Gonzalo. 2001. Videogames of the oppressed: Videogames as a means for critical thinking and debate. Masters thesis, Georgia Institute of Technology, Atlanta.
Juul, Jesper. 2005. *Half real: Videogames between real rules and fictional worlds*. Cambridge: MIT Press.
Murray, J.H. 1997. *Hamlet on the holodeck: The future of narrative in cyberspace*. New York: Free Press.
Newman, James. 2004. *Videogames*. London: Routledge.
Tavinor, Grant. 2009. *The art of videogames*. Malden: Wiley-Blackwell.

# Part I
# Players and Play

# Chapter 2
# Introduction to Part I: Players and Play

**Tarjei Mandt Larsen**

A fundamental fact about computer games is that they exist in order to be played. Among the many issues raised by this fact, two questions have lately received a lot of attention: First, what is the nature of computer game play, conceived as an activity or practise? Specifically, how does the playing of computer games differ from the playing of non-computer games on the one hand, and different kinds of non-playing activities and practices on the other? Second, what characterizes the player herself, in so far as she is engaged in the activity of computer gameplay? In particular, what characterizes her subjective experience of being involved in this activity – her gaming experience, as it is often called?

Both of these questions have spawned a rich literature. Among approaches to the first, an important strand takes off from the idea that play, in general, is an activity marked off from other activities by what the cultural theorist Huizinga (1955) called a "magic circle", constituted, ultimately, by common recognition of some form of rules (Salen and Zimmerman 2003; Juul 2005). Although still influential, this approach has increasingly come under attack. Several authors argue that, far from constituting a separate sphere of activity, the playing of computer games and games in general, stand in various kinds of continuity with other activities and practices, with which they are integrated in different ways (Ehrmann 1968; Pargman and Jakobsson 2006; Taylor 2006; Malaby 2007; Copier 2007; Calleja 2007, 2012).

Approaches to the second question exhibit the same basic tendencies. Indeed, for many, the two questions are closely linked, and authors opposed on the nature of gameplay also tend to differ on the characteristics of players and their experiences. Those sympathetic to the idea of the Magic Circle typically regard the gaming

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experience as being of a fundamentally different kind from other experiences, premised as it is, some argue, on the adoption of an attitude specific to, or even definitional of, the gaming situation (Suits 1978). By contrast, those who reject the idea that gameplay constitutes a separate sphere of activity typically also reject the idea that the gaming experience constitutes a separate kind of experience. They argue, often on the basis of empirical studies, that it must rather be seen as essentially interrelated with other forms of experience in complex ways.

What does philosophy have to offer in connection with these and related, issues? With regard to the gaming experience, one important resource, of which several of our contributors make use, is phenomenology: the rich and multifaceted tradition instigated by German philosopher Edmund Husserl at the turn of the last century (For overviews, see Spiegelberg 1994 and Luft and Overgaard 2011). Roughly speaking, phenomenology is an attempt to solve philosophical problems on the basis of faithful descriptions of the structures of subjective experience, as these are available from the perspective of the experiencing subject herself. From the results obtained in the phenomenological tradition by descriptions of this kind, we can extract three ideas of particular relevance for understanding the gaming experience. The first is Husserl's idea that experience is characterized by intentionality, by which he means that experience is always experience *of* something, and is therefore essentially a form of openness to something beyond itself (Husserl 1970, 1982). The second is the idea, developed in particular by another early German phenomenologist, Martin Heidegger, that our most basic experiential relation to the world is a practical one, a relation of involved dealing with things as instruments for the achievement of goals of various kinds (Heidegger 1962). The third, associated primarily with the French phenomenologist Maurice Merleau-Ponty, is the idea that experience is essentially corporeal, a phenomenon fundamentally determined by the fact that the experiencing subject is always an embodied subject (Merleau-Ponty 1962).

Another important resource for dealing with the nature of the gaming experience is cognitive science. Although not strictly speaking philosophical, cognitive science is closely related to certain branches of philosophy. But it also draws on psychology, artificial intelligence, neuroscience, linguistics, sociology and education, and is best seen as a heading for a multitude of scientific studies of mind. As the name suggests, it deals primarily with cognition, but it is also concerned with other kinds of mental state, such as desire and emotion, both in their relation to cognitive states and in their own right. Unifying the various strands of cognitive science is the shared assumption that mental processes should be analyzed and explained in terms of mental representations and computational procedures operating on them, which procedures are to be conceived as analogous to the computational algorithms that, in computers, operate on data structures.

A further resource, not only for dealing with the nature the gaming experience, but also for addressing issues concerning gameplay and its relations to other activities, is the philosophy of technology. The philosophy of technology attempts

to analyze the structure of technology and technological reasoning, and the way in which technology impacts society and culture. Of the many branches of this research effort relevant to the present issues, one has received special attention in computer game studies: namely, the so-called post-phenomenology of American philosopher Don Ihde. Drawing on phenomenology, Ihde attempts to chart and analyze the many and complex ways in which technology conditions our experience of ourselves and the world, thereby providing a fruitful framework for addressing its social and ethical implications (Ihde 1990).

Yet another resource for tackling both sets of issues is the philosophical current known as post-modernism or post-structuralism, as represented by, among others, French philosophers Gilles Deleuze, Jacques Derrida and Michel Foucault (For an overview, see Gutting 2011). Their significant differences notwithstanding, they are united in adopting a critical attitude to the conceptual presuppositions of theories in different areas, and, in particular, to the widespread tendency to conceive of phenomena within these areas in terms of binary or exclusive oppositions. Applied to games studies, this attitude can be of value in allowing the game researcher to question the adequacy of her theoretical vocabularies, and maybe, as a result, replace them with other, more adequate ones.

Turning now to the essays that comprise the first part of the book, the first two concern different aspects of the gaming experience. In "Enter the Avatar: The Phenomenology of Prosthetic Telepresence in Computer Games" game researcher Rune Klevjer seeks to clarify the crucial game-theoretic concept of an avatar, and the role of the avatar in mediating the relationship between the player and the game world in games with 3D navigable environments, such as First Person Shooter games. An avatar is a computer game element that, by virtue of being directly controllable, and in many cases customizable by the player, serves as her primary means of interacting with the game world. Given that one of the key features of computer games is, precisely, the possibility of interaction they afford, gaining an understanding of the specific nature of avatars, and of the specific ways in which they facilitate game-player interaction, is of fundamental importance in coming to terms with the gaming experience. Klevjer takes his point of departure from the idea that an avatar in a 3D game is not a mere tool for the player, but rather a prosthetic extension of her body into game space. Drawing on Merleau-Ponty's phenomenology, and in particular his view of the body as both subject and object of experience, Klevjer develops this idea by arguing that the avatar must be seen as a bodily extension of an unprecedented kind, one that not only extends but also relocates the player's body into game space. More specifically, he argues that the avatar be recognized as what he calls a proxy: a replacement for the player's body as an object in external space, which, by belonging to and being submitted to the game environment on her behalf, offers her the experience of what he calls "prosthetic telepresence". Part of his argument is that the avatar in games of the kind at issue is not ultimately the controllable character or marionette, if there be any, but the navigable virtual camera, and that this marks an important difference between games with 3D navigable environments and other kinds of games.

In “Computer Games and Emotions” game researcher Petri Lankoski addresses another important aspect of the gaming experience: namely, its emotional dimension. Arguing that emotions are essential to the gaming experience, he offers a conception of how various game-elements – goals, character, beauty and music – influences the player’s emotional experience. His point of departure is cognitive science, and holding that no one perspective can account for the emotional impact of all the elements analyzed, he makes use of several theories, including Damasio’s influential theory of emotions as guides for decision-making and attention. Along the way, he offers reasons for thinking that the way in which the elements concerned influence the player’s experience co-depend on her perception of her situation, which, for its part, co-depends on her attention and personal history. In addition to its theoretical interest, Lankoski’s study may be useful for game designers, suggesting, as it does, how the emotional expressions of game characters can be used to introduce fairly complex emotions into games.

The next two essays address issues related to the nature of gameplay. Game researcher Olli Leino’s contribution, “Untangling *Gameplay*: An Account of Experience, Activity and Materiality within Computer Game play”, is an attempt to provide a general account of this central notion. He takes his cue from the colloquial use of the term, on which, he finds, it refers not only to play conceived as an activity, but also to qualities of the player and the game being played itself. On the basis of this observation, and ideas drawn from Ihde’s post-phenomenology work, he argues that gameplay be construed as a hybrid phenomenon comprising the activity of play, the gaming experience of the player, and the specific technological nature of the game artefact. In thus insisting on the hybridity of gameplay, he sets himself against attempts to reduce the phenomenon to one or another of its constitutive components, as do those, he argues, who analyze it simply in terms of interactivity or the consequences of rules. The potential implications of Leino’s contribution are not merely theoretical. “Good gameplay” is often considered the holy grail of games – from perspectives of design, analysis and critique alike. By showing how gameplay is constituted in the interactions between the technological game artefact, the abstract system of the game and the player, this chapter traces the origins of a multitude of factors hidden under the concept of good gameplay, all worth taking into account when designing, analyzing or reviewing a game.

In “Erasing the Magic Circle”, game researcher Gordon Calleja argues that the influential idea of the Magic Circle, and the general tendency to conceptualize areas of discourse in terms of binary oppositions has had a pernicious effect on the ability of game studies to come to terms with both gameplay and the gaming experience. Drawing on qualitative studies of players and player experience, he argues that, far from constituting a separate sphere of activity and experience, gameplay is a heavily contextualized phenomenon, essentially influenced by the players’ personal and social background. From this he draws the general moral that game researchers

in search of conceptual means with which to address and answer questions in their novel area should be cautious when adopting already established vocabularies lest, by doing so, they end up distorting the very phenomena they wish to comprehend. Addressing the very foundation of our understanding of games, Calleja's discussion, too, has possible practical implications. The realization that gameplay and the gaming experience are essentially dependent on the contexts in which they occur might encourage the development of new kinds of games that not only exhibit, but also make active use of this dependence.

## References

Calleja, Gordon. 2007. Digital games as designed experience: Reframing the concept of immersion. Unpublished doctoral thesis, Victoria University of Wellington, Wellington.

Calleja, Gordon. 2012. Erasing the magic circle. In *The philosophy of computer games*, ed. J.R. Sageng, H. Fossheim, and T.M. Larsen. Dordrecht: Springer.

Copier, Marinka. 2007. Beyond the magic circle: A network perspective on role-play in online games. Unpublished doctoral thesis, Utrecht University, Utrecht.

Ehrmann, Jacques. 1968. *Homo Ludens* revisited. *Yale French Studies* 41: 31–57.

Gutting, Gary. 2011. *Thinking the impossible: French philosophy since 1960*. Oxford: Oxford University Press.

Heidegger, Martin. 1962. *Being and time*. Trans. J. Macquarrie and E. Robinson. New York: Harper & Row.

Huizinga, Johan. 1955a. *Homo Ludens: A study of the play element in culture*. Boston: Beacon.

Husserl, Edmund. 1970. *Logical investigations*. Trans. M. Findley. London: Routledge & Kegan Paul.

Husserl, Edmund. 1982. *Ideas pertaining to a pure phenomenology and a phenomenological philosophy. First book*. Trans. F. Kersten. Dordrecht: Springer.

Ihde, Don. 1990a. *Technology and the lifeworld: From garden to earth*. Bloomington/Indianapolis: Indiana University Press.

Juul, Jesper. 2005. *Half real: Videogames between real rules and fictional worlds*. Cambridge, MA: MIT Press.

Luft, Sebastian, and Søren Overgaaard. 2011. *The Routledge companion to phenomenology*. London: Routledge.

Malaby, Thomas. 2007. Beyond play: A new approach to games. *Games and Culture* 2(2): 95–113.

Merleau-Ponty, Maurice. 1962. *Phenomenology of perception*. Trans. C. Smith. London: Routledge & Kegan Paul.

Pargman, D., and P. Jakobsson. 2006. The magic is gone: A critical analysis of the gaming situation. Paper presented at the Gaming Realities: A Challenge for Digital Culture, Athens.

Salen, Katie, and Eric Zimmerman. 2003. *Rules of play: Game design fundamentals*. Cambridge, MA: MIT Press.

Spiegelberg, Herbert. 1994. *The phenomenological tradition*. Dordrecht/New York/Heidelberg: Springer.

Suits, Bernard. 1978. *The grasshopper: Games, life and Utopia*. Toronto: Toronto University Press.

Taylor, T.L. 2006. *Play between worlds: Exploring online game culture*. Cambridge, MA/London: MIT Press.

## Suggestions for Further Reading

Caillois, Roger. 2001. *Man play and games*. Champaign: University of Illinois Press.
Damasio, Antonio. 2005. *Descartes' error: Emotion, reason, and the human brain*. New York: Penguin.
Decety, Jean, and Philip L. Jackson. 2004. The functional architecture of human empathy. *Behavioral and Cognitive Neuroscience Reviews* 3: 71–100.
Dreyfus, Hubert. 2008. Existential critique of second life. In *On the Internet (Thinking in action)*, 2nd ed, ed. H. Dreyfus, 89–120. London: Routledge.
Gingold, Chaim. 2003. Miniature gardens & magic crayons: Games, spaces, & worlds. Master's thesis, School of Literature, Communication and Culture, Georgia Institute of Technology, Atlanta. Also available at http://www.slackworks.com/~cog/writing/thesis/toc.php.
Huizinga, Johan. 1955b. *A study of play element in culture*. Boston: Beacon.
Ihde, Don. 1990b. *Technology and the lifeworld: From garden to earth*. Bloomington: Indiana University Press.
Ihde, Don. 2003. A phenomenology of technics. In *Philosophy of technology. The technological condition. An anthology*, ed. R.C. Scharff and V. Dusek, 507–529. Chichester: Blackwell Publishing.
Lankoski, Petri. 2011. Player-character engagement in computer games. *Games and Culture* 6(4): 291–311. doi:10.1177/1555412010391088.
Manovich, Lev. 2001. *The language of new media*. Cambridge, MA: MIT Press.
Oatley, Keith, Dacher Kelter, and Jennifer Jenkins. 2006. *Understanding emotions*, 2nd ed. Malden: Wiley-Blackwell.
Sudnow, David. 1983. *Pilgrim in the microworld. Eye, mind and the essence of video skill*. New York: Warner Books.
Tavinor, Grant. 2010. *The art of videogames*. Malden: Wiley-Blackwell.
Wilhelmsson, Ulf. 2001. Enacting the point of being. Computer games, interaction and film theory. Ph.D dissertation, University of Copenhagen, Copenhagen.

# Chapter 3
# Enter the Avatar: The Phenomenology of Prosthetic Telepresence in Computer Games

**Rune Klevjer**

To what does it refer when we talk about "being" in a game, or when we say that we are "in the shoes of" Lara Croft, Mario or Master Chief? How is it possible that we can, in certain types of games, act and react in an intuitive fashion, as if actually being inside the gameworld, when we are in fact in front of the screen, moving buttons and sticks on a game controller?

In internet- and computer game discourses, the notion of "avatar" has two common uses. It is usually taken to simply mean *playable character*, in all its variants, from Pac-Man to Guybrush Threepwood. In online environments like *World of Warcraft* (2004), the term tends to highlight, more specifically, the player's virtual *persona* in the game world. This latter meaning of the term has migrated into online virtual spaces of all kinds, where users' accounts and profiles are typically linked to personas or "avatars".

A central premise for this paper, however, is that we must make a distinction between "avatar" understood as a playable *character* (or persona), and "avatar" understood as a vehicle through which the player is given some kind of embodied agency and presence within the gameworld. In the action-adventure genre of computer games, from *Super Mario Bros*. (1985) to *Call of Duty: Modern Warfare 2* (2009), these two different aspects or functions are combined into one avatar. Nevertheless, character-play must clearly be seen as independent from embodied presence, and vice versa. Playable characters can be interacted with via email, for example, or in numerous other ways that would not imply any kind of embodied presence within a computer-simulated environment. Conversely, the vehicle of agency and presence in a gameworld does not at all need to be also a character; the paradigmatic category here would be racing games or flight simulators, but there are also games like *Marble Madness* (1984), in which our avatar is a rolling marble. Indeed we could say that, when playing those kinds of games, we get to *be* a

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racing car, a rolling marble, or a spaceship, just like we get to be (some equivalent of) a human body in an action-adventure game.

## 3.1 Agency: The Cursor Analogy

Many have noted that the character dimension of avatars like Mario or Lara Croft appears to be relatively insignificant in comparison to their function as a mediators of players' agency in the gameworld. In *Nintendo and New World Travel Writing: A Dialogue* (1995), Mary Fuller and Henry Jenkins point out that action-adventure avatars should not be mistaken for characters or protagonists in a narrated story:

> In Nintendo®'s narratives, characters play a minimal role, displaying traits that are largely capacities for action: fighting skills, modes of transportation, preestablished goals (. . .). The character is little more than a cursor that mediates the player's relationship to the story world (Fuller and Jenkins 1995).

"Little more than a cursor" seems to imply that the avatar is no more than a tool, a capacity for action, an instrument. The cursor analogy has also been used also by Marie-Laure Ryan, who in her influential *Narrative as Virtual Reality* (2001) suggests that the cursor is the "the minimal form" of third-person avatars like Mario (2001:309).

In "The Myth of the Ergodic Videogame. Some thoughts on player-character relationships in videogames" (2002), James Newman broadly shares Fuller and Jenkins' approach, and argues that the primary function of avatars is to mediate the player's *agency* rather than to be characters with whom the player is supposed to identify in a similar fashion as in novels or films. When playable characters are "On-Line", Newman argues – that is, when being played, as opposed to merely appearing in cutscenes – they are not "characters" in the traditional sense at all:

> Thus, On-Line "character" in the sense we understand it in non-ergodic media, dissolves. Characters On-Line are embodied as sets of available capabilities and capacities. They are equipment to be utilised in the gameworld by the player. They are vehicles. This is easier to come to terms with when we think of a racing game like Gran Turismo where we drive a literal vehicle, but I am suggesting that, despite their representational traits, we can think of all videogame characters in this manner. On-Line, Lara Croft is defined less by appearance than by the fact that "she" allows the player to jump distance x, while the ravine in front of us is larger than that, so we better start thinking of a new way round. . .(Newman 2002:9).

According to this analysis, we could say that playable characters are being *driven* or piloted by the player. We should note here, however, that Newman's account goes beyond the minimal cursor analogy of Fuller and Jenkins, at least by implication. If we recognise that Lara Croft is indeed an "embodiment" of the player, this would imply not only that she mediates the player's ability to jump or walk, but also that she embodies the player's risk of *falling down* the ravine. This latter aspect is arguably central to what the game is about. A mouse cursor does not make the player belong to or *be* in the game environment in the same way.

Still, Newman's choice of emphasis, when he says that, for example, avatars are "equipment to be utilised", indicates that the notion of embodied agency is thought of in relatively narrow terms: avatars are mainly seen as tools or instruments, resources for the player. An influential strand of computer game research (Salen and Zimmerman 2004; Linderoth 2005; Carr 2002; Dovey and Kennedy 2006) has adopted a similar approach, however with an important addition or modification, drawing on insights from cultural and text-oriented theory: even if we do recognise – the argument goes – that avatars are primarily tools or equipment, this does not mean that character is unimportant. These theorists argue that the avatar is important as both tool *and* character, and point out that the relative balance or configuration between the two aspects will vary greatly between games, players and playing situations. Sometimes we care about character, sometimes we are interested only in the tool.

## 3.2 Prosthetic Agency and the Camera-Body

This dual-function approach to the analysis of player-avatar relationships, because it sticks to an instrumental notion of agency, tends not to focus so much on the question of *being* in a gameworld, via the avatar. Before turning to Merleau-Ponty, let me pick up two important cues from recent computer game theory that address this question, and which have informed my own approach. First, Ulf Wilhelmsson's notion of the Game Ego:

> As a player you incorporate an agent, a Game Ego function, within the game environment. This exertion of control is an extension of the player's own sensory motor system via a tactile motor/kinaesthetic link, why it is not only the controlled and perceived motion on a screen but also the experience of locomotion within an environment that is the result of this control. (...)The Game Ego is that function; the agency within the game that manifest the player's presences allowing him or her to perform actions (Wilhelmsson 2006:67).

What we may call *prosthetic* agency, which functions as an extension or a prosthesis of the player's body, a "tactile motor/kinaesthetic link", is a defining characteristic of action- sport- and action-adventure avatars since *Spacewar!* (2006 [1962]). Through the magic of real-time control, it is as if the player is reaching directly into the gameworld through a prosthesis, an extended limb. In Wilhelmsson's account, among the various manifestations of the Game Ego would be, for example, the controllable blocks in *Tetris*: through practice, the control exerted on the blocks by the player may become second nature, similar to the way in which we are able to control our own hand, directly, without planning or thinking.

Whether a block in *Tetris* should also qualify as an *avatar* is a different question, however, as I will explain below. Still, the notion of the Game Ego overlaps with the concept of the prosthetic avatar: both mediate agency from *within* the game environment, and both are hooked up to our hands and eyes in such a way as to become extensions of our body. Finally, the Game Ego, according to Wilhelmsson, is manifested not only through visible elements like blocks, vehicles or characters, but also through the player's experience of *locomotion*, of putting oneself into motion via the prosthetic link.

A similar observation is made by Bob Rehak, who in his psychoanalytically informed analysis of the player-avatar relationship also emphasises the avatarial role and status of the "camera-body" as much as the visible avatar:

> Avatarial operations flow from two elements that interdepend in various ways. First is the foregrounding of an onscreen body, visible in whole or in part. Second is the conceit of an offscreen but assumed body constituted through the gaze of a mobile, player-controlled camera. Different articulations between camera-body and avatar-body lead to different, though related, modes of play and subject effects. In every case, the intent – to produce a sense of diegetic embodiment – announces itself from the dawn of video game history (Rehak 2003:109).

Even if the notion of "diegetic" embodiment may be misleading in a certain sense, as I will return to below, Rehak's central observation is important: the action- and action-adventure strand of computer game history has been pushing towards an ever more immersive and visceral sense of being in the gameworld. From *Spacewar!* and onwards, prosthetic avatars do indeed offer, as Rehak says, experiential simulations of being a body in a world. Through prosthetic avatars, we get to play with, and play through, extensions of our own being.

## 3.3 The Paradox of the Prosthetic Avatar

It is important to emphasise, however, at this point, that avatarial extensions are not like other bodily extensions. A prosthetic avatar is more than a mere extension of the player's ego function, more than the extension of the player as acting and perceiving *subject*. At the heart of the player-avatar relationship lies a tension and a paradox, reflected in our intuitive understanding of what it means to be immersed in a navigable 3D environment through an avatar. How can we say that the player is extending or reaching into the gameworld, while at the same time also saying that the player is "being within" and "acting from within" the gameworld? How can avatarial embodiment be both a kind of *extension* and a kind of *re-location* at the same time? The idea of the bodily prosthesis seems to contradict the idea of embodied being or presence, especially as it relates to the navigable "camera-body" that is the primary vehicle of perceptual immersion in contemporary games.

Hopefully, a phenomenological analysis of this paradox can contribute to our understanding also from the point of view of game design and analysis. What is the core difference between a first-person 3D computer game and a Virtual Reality installation – actual or imagined one – in terms of their immersive characteristics? And, looking in the opposite direction: what is the difference between navigable 3D environments and 2-dimensional game spaces? Is the prosthetic nature of 2D- and 3D-avatars basically of the same kind, or is there a radical leap between the two?

Finally, there is the question of *fictionality*, which is part of my motivation for investigating the tension between the "here" and "there" of avatar-based play. Previously, as part of a broader genre study of space and interaction in

avatar-based games (Klevjer 2007), I have suggested a concept of "vicarious" embodiment that combines a phenomenological notion of the bodily prosthesis with theories of fiction and simulation.

The key idea here is, in very simple terms, that the avatar is different from a cursor because it belongs to the simulated world of the game. According to this approach, the avatar's status as a simulated and *fictional* body becomes essential to its definition. However, on closer scrutiny, could it really be said that avatarial embodiment is, at its heart, *simulated* embodiment? It is an attractive proposition, because it would seem to solve the conflict between extension and re-location. It would allow us to say that, whereas the concept of prosthesis addresses the nature of our actual embodiment *here*, the notion of simulated or fictional embodiment would adequately capture our re-located presence *there* – the latter given to us via the "conceit", in Rehak's terms, of the avatarial apparatus.

However, while simulated bodies and simulated worlds are certainly crucial in the concrete articulations of the player-avatar relationship, as I will return to below, I would argue that, contrary to the claims I made earlier, theories of simulation and fiction are not necessary to explain the defining mechanisms of avatarial embodiment. Indeed, the notion of the avatar as a simulated body, however correct in any particular instance, can neverthless be a misleading one, obscuring from view important phenomenological parameters of embodied engagement.

So let us instead take a closer look at the notion of the bodily extension, as laid out in *Phenomenology of Perception*. The central idea I will suggest from this work is that avatarial extensions mediate particular kinds of relationships between the body as *subject* and the body as *object*, and between "bodily space" and "external space". This duality in the nature of the body is rooted in the general phenomenological idea of intentionality, as developed by Edmund Husserl and Martin Heidegger.

## 3.4 The "I Can"

"Intentionality" means that perception always, by its very definition, is directed or intended towards a meaningful world. Perception implies the perception of *something*, and this something will always be, in some sense, anticipated, already *given* as significant for us, something that is purposefully reached for by our senses and our actions. In *Phenomenology of Perception*, Merleau-Ponty is concerned with the embodied nature of this intentionality. Heidegger's *Dasein,* according to Merleau-Ponty, must be understood as an intentional body, an embodied being-in-the-world. The subject is not a mind that has a body, but a mind that *is* a body; I am constituted as subject by virtue of being a body-in-the-world. The subject is not, as Descartes argued, a *cogito* or "I think", but rather an "I can", an intentional body-subject. The way in which we perceive the world and our position in it is grounded in this *I can*.

Avatar-based computer games are unique because they play directly to the constitution of our experienced body. The defining appeal of games like *Super Mario 64* (1996) or *Grand Theft Auto III* (2001) is that we get to be a different *I can*, stepping into the shoes (or wheels) of another body, in another world. Let us first look more closely at Merleau-Ponty's account of body intentionality and the bodily extension, before turning to the implications for avatarial embodiment.

## 3.5 Body Intentionality and Body Image

The body, Merleau-Ponty says, "is our general medium for having a world" (2002 [1962]:169). This is a radical formulation to emphasise the status of the body as *subject*, that is: as that for which there is a world. At the same time, of course, our bodies are also objects in the world, along with other objects; we can look at and measure our hand, just like we can look at and measure other objects in the world. Merleau-Ponty describes this duality in a passage that is best quoted at length:

> My visual body is certainly an object as far as its parts far removed from head are concerned, but as we come nearer to the eyes, it becomes divorced from objects, and reserves among them a quasi-space to which they have no access, and when I try to fill this void by recourse to the image in the mirror, it refers me back to an original of the body which is not out there among things, but in my own province, on this side of all things seen. It is no different, in spite of what may appear to be the case, with my tactile body, for if I can, with my left hand, feel my right hand as it touches an object, the right hand as an object is not the right hand as it touches: the first is a system of bones, muscles and flesh brought down at a point of space, the second shoots through space like a rocket to reveal the external object in its place. In so far as it sees or touches the world, my body can therefore be neither seen nor touched. What prevents it ever being an object, ever being 'completely constituted', is that it is that by which there are objects. It is neither tangible nor visible in so far as it is that which sees and touches. The body therefore is not one more among external objects (2002 [1962]:105).

The invisibility of the body, as "that which sees and touches", also includes movement and the body's ability to move other objects. The intentionality of the body, Merleau-Ponty explains, is a "motor intentionality", a "motor project" (2002 [1962]:127). Like the movement of the eyeballs, the movement of the hand is equally "on this side of all things seen":

> I move external objects with the aid of my body, which takes hold of them in one place and shifts them to another. But my body itself I move directly, I do not find it at one point of objective space and transfer it to another, I have no need to look for it, it is already with me- I do not need to lead it towards the movement's completion, it is in contact with it from the start and propels itself towards that end. The relationships between my decision and my body are, in movement, magic ones (2002 [1962]:108).

Merleau-Ponty then turns to the intentionality of spatial perception. Our awareness of our own body in space, he argues, our *body image*, is as an intentional stance or posture towards the world. My body-image, he explains, is a "total awareness of my posture in the intersensory world" (2002 [1962]:114). The body-image is a

form, or *gestalt*, through which external space appears as meaningful, in a figure-ground structure. So when I am engaged in an activity, for example playing a video game, the different parts of my body – eyes, feet, thumbs – will all be, in Merleau-Ponty's words, part of this "total awareness (...) only in proportion to their value to the organism's project".

> Psychologists often say that the body image is dynamic. Brought down to a precise sense, this term means that my body appears to me as an attitude directed towards a certain existing or possible task. And indeed its spatiality is not, like that of external objects or like that of 'spatial sensations', a spatiality of position, but a spatiality of situation. (...) The word 'here' applied to my body does not refer to a determinate position in relation to other positions or to external coordinates, but the laying down of the first co-ordinates, the anchoring of the active body in an object, the situation of the body in front of its task. Bodily space can be distinguished from external space and envelop its parts instead of spreading them out, because it is the darkness needed in the theatre to show up the performance, the background of somnolence or reserve of vague power against which the gesture and its aim stand out, the zone of not being in front of which precise things, figures and points can come to light. In the last analysis, if my body can be a 'form' and if there can be, in front of it, important figures against indifferent backgrounds, this occurs in virtue of its being polarized by its tasks, of its existence towards them, of its collecting together of itself in its pursuit of its aims; the body image is finally a way of stating that my body is in-the-world (2002 [1962]:114).

So the *here* of my body, its own "bodily space", in Merleau-Ponty's terms, whether in videogame play or any other activity, is intentional in nature, directed towards a situation – "the situation of the body in front of its task". The body exists towards its tasks. So when we attempt to describe our own body in action, caught in the act, as it were, we must try and look at it in the reverse direction, from the point of view of its tasks and aims, by which the body is being "collected together", filtered or "polarised" in its spatial awareness, polarised as body-image.

## 3.6 The Bodily Extension

A bodily *extension*, according to Merleau-Ponty, is that which becomes incorporated into our own body as "motor project", integrated as part of that which is "...neither tangible nor visible in so far as it is that which sees and touches". Getting intuitively familiar with a hat, a car, or a stick is to be transplanted into them, he explains, "or conversely, to incorporate them into the bulk of our own body" (2002 [1962]:166). When we get used to a typewriter, so that we are mastering its operation fluently and intuitively, the typewriter has become like a seamless prosthesis, incorporated into bodily space, along with our hands and eyeballs. Our body-image is being extended and re-wired through technology, now "existing towards" and polarised by a new horizon of tasks.

Merleau-Ponty emphasises the way in which objects (stick, typewriter, hat), when incorporated into our body, become invisible, unexpressed, cease to exist as external objects. They instead become part of the body as gestalt, part of "the

darkness needed in the theatre to show up the performance". Extensions enter into our bodily awareness as articulated by the situation or tasks towards which they exist.

> The blind man's stick has ceased to be an object for him, and is no longer perceived for itself; its point has become an area of sensitivity, extending the scope and active radius of touch, and providing parallel to sight. In the exploration of things, the length of the stick does not enter expressly as a middle term: the blind man is rather aware of it through the position of objects than of the position of objects through it (Merleau-Ponty 2002 [1962]:165–166).

The learning and effort that goes into the transformation of an external object into a bodily extension – relocating it, as it were, from the visible to the invisible – is referred to by Merleau-Ponty as a kind of tacit knowledge, a *habit*, or "knowledge in the hands":

> If habit is neither a form of knowledge nor an involuntary action, what then is it? It is knowledge in the hands, which is forthcoming only when bodily effort is made, and cannot be formulated in detachment from that effort. The subject knows where the letters are on the typewriter as we know where one of our limbs is, through a knowledge bred of a familiarity which does not give us a position in objective space (Merleau-Ponty 2002[1962]:166).

Summing up so far: our bodily experience of "here" and "there" is defined by the actual and potential possibilities and demands of the situation, by what we *can*. Our body is intuitively directed and postured towards a set of aims and tasks. A keyboard, a musical instrument, a gamepad, as a result of our hard effort and habituation, will alter the *I can* and thereby alter our bodily awareness, as it becomes part of the invisible, part of that by which we perceive and act. We could say that our experience of how our senses and organs relate to each other and to the world, and our sense of how we are placed in front of a situation, is being *re-situated* through the incorporation of a bodily extension.

This is not an extension of pure subjects or egos, but of *bodies*, in their dual nature of being both subject and object. The blind man, extended by his stick, is both touching and being touched.

## 3.7 The Extending Touch

So what does this mean for computer games and computer game avatars? It is clear that games that are controlled in real-time, whether via sticks, mouse, steering wheel, motion capture, or any other kind of direct interface, do rely on our ability to learn, in some way or another, bodily intuitive control. In general terms, therefore, we do somehow "transplant" into these kinds of computer games in a similar fashion as we do when we learn to play an instrument or drive a car. However, unlike cars and walking sticks and pianos, video games extend our bodies across a *material* divide, into screen space. This material gap is a major complication, which obviously Merleau-Ponty does not address.

Things get particularly complicated when games require us to cross that material divide via an avatar. What kind of object is it, exactly, that can be said to plug into our body as a prosthesis? The controller? The screen? The avatar? When I am playing, say *Mario 64* (1996) or *Halo* (2001), what would be the "here" of my bodily space, and what would count as "external objects"? What would I, in Merleau-Ponty's words above, be "moving directly", as opposed to the stuff that I am moving «with the aid of my body"?

The first answer is fairly straightforward, at least in its general formulation: the core prosthetic element, which plugs into our body in order to disappear under the radar, is the controller interface. Without our ability to learn to act and react intuitively into screen space via the sticks and buttons of the controller, we would never approach any mastery of action-oriented games.

The ideal type for this form of play would be arcade action games like *Pac-Man* (1980) or *Breakout* (1978). And the classic text would be jazz pianist, sociologist and philosopher David Sudnow's phenomenological self-study in *Pilgrim in the Microworld: Eye, Mind and the Essence of Video Skill* (1983). Sudnow draws heavily on Merleau-Ponty's work, including its characteristic style of formulation. He painstakingly records how, after hundreds of hours of training, he learned to become a master of the home console version of *Breakout*, and describes in poetic detail his own appropriation of the game as a prosthetic extension.

First, Sudnow draws attention to the "electro-umbilical hookup" (1983:23) that connects our hand to the responsive image of a paddle.

> There's that space over there, this one over here, and we traverse the wired gap with motions that make us nonetheless feel in a balanced extending touch with things (Sudnow 1983:37).

Sudnow here goes straight to the heart of real-time controlled games, as pioneered by *Spacewar!* and *Pong* (1972). The player feels like he or she is in an *extending touch* with things on the screen. As players, we reach across the material barrier, and "traverse the wired gap" between our body's space *here* and screen space *there*. This "mysterious transformation of our movements" (1983:23), I would argue, which simulates a *tangibility* of the screen space, is the primary conceit, the primary "as if" of the player-machine interaction. The simulation of tangibility is not dependent on there being anything figuratively recognisable going on the screen (spaceships, gardens); all that is required is an experience of continuous physicality, of being in extended touch with on-screen images.

It is important to note that it is not the bodily extension itself, but the experience of being in touch with physical objects – just like we would with a pinball machine or a mechanical coin-up game – that is a conceit, a pretence, a (real-time) simulation run by a computer. In other words: simulation comes into play at the level of materiality. Borrowing Umberto Eco's terms, we can say that screen space is given an "analogous function" (1976:209) in relation to the physical reality of natural embodiment.

The extending touch, Sudnow goes on to observe, comes to function like a prosthetic extension of his own body, an implement, via the interface of the gamepad.

> When a paddle or a bat is incorporated by the body, becoming a continuation of ourselves into and through which we realize and aim in a certain direction, such implements lose all existence as things in the world with the sorts of dimensions you measure on rulers. They become incorporated within a system of bodily spaces that can never be spoken of in the objective terms with which we speak of objects outside ourselves (Sudnow 1983:122).

It is tempting to say that the paddle of Breakout becomes a prosthetic *avatar*, and in a certain limited sense this would be true; the paddle, or the "bat" in *Pong,* directly hooked up to the player's fingers as if connected by a mechanical link, is indeed a privileged mediator of agency within screen-space. The on-screen paddle becomes the logical counterpart to the physical extension of the controller device.

However, as Sudnow is lead to realise, after hours and days of practice, there is a higher ambition to strive for: the game as a whole, gamepad and screen, can be transformed into bodily prosthesis, incorporated as second nature in a way that is similar to the mastery of a musical instrument. Sudnow finds that, with this kind of "game" (which is, he argues, no longer a game), one can, in a phenomenological sense, literally lose oneself, disappear in the game:

> It's as if instead of truly incorporating the events on the screen within the framework of the body's natural way of moving and caring, the action on the screen must incorporate me, reducing or elevating me to some ideal plane of synaptic being through which the programmed co-incidences will take place (Sudnow 1983: 138–139).

At the end of his learning experience, Sudnow finds a state of play that approaches the hypnotic, the hallucinatory:

> It's becoming an instrument. Instantly punctuated picture music. Supercerebral crystal clear Silicon Valley eye jazz (1983:191).

What is this, in light of the above? It seems to me that this is not an extension of the body in its dual nature, but rather something approaching the extension of pure subjectivity, a Game Ego prosthesis in Wilhelmsson's terms, a kind of bodily self-awareness without external space, bodily habit as trance. So we could call this kind of play, which is typically associated with classic arcade action, *instrument* play, because of its similarity to mastering a musical instrument, its patterns and rhythms. Instrument games do have a prosthetic avatar, in its minimal form, but the relationship between avatar and its on-screen environment, its external counterpart, its screen ecology, is indistinct and blurred, washed out along the path to fluent mastery. In the end, there is no speaking of the avatar versus the environment, only the controller and the screen as one organ, a hypnotic machine.

## 3.8 The Prosthetic Marionette

In avatar-based games, in contrast, there is always going to be an external screen space, an environment, a world into which we extend our bodies via the avatar. In terms of genre history, the key moment would be the transition from the static screens of *Breakout* and *Pong* to the scrolling environments, the travelling frame, of *Super Mario Bros*. Through the playable figure of Mario, the player could go journeying and exploring into an unknown landscape that stretched beyond the frame of the screen. The action-*adventure* was born.

Like the spaceship in *Spacewar!*, or the paddle in *Breakout*, Mario's movements are controlled in a way that simulates a tangible relationship. Controlling Mario is like controlling a marionette, hooked up to the player's fingers by invisible strings. In order to play well, the player must work to incorporate Mario as the on-screen extension of his or her own body, via the physical extension of the gamepad.

In the action-adventure genre, however, in contrast to the arcade-action genre, the avatar's relationship to its environment is put into focus. The rationale behind this type of prosthetic habituation is not to reach a delirium of the Game Ego, but rather to be able to perceive and act intuitively *within* an environment (navigating, exploring, combating), through an avatar. The world of the game does not offer itself to be absorbed by the marionette (or vice versa), as in arcade action, but is instead something external, autonomous and unknown, to be discovered and conquered through the avatar as part of a journey.

There are of course, it should be noted at this point, avatars that allow the player to act indirectly within screen-projected environments *without* becoming prosthetic in nature, or which at least are not designed to function in this way. Such avatars are not controlled through tangible interaction (simulating an extending touch), but rather through *symbolic* interaction, which means that the player gives *instructions* to the avatar, via the controller interface. Symbolic avatar interfaces simulate not physical tangibility but an anthropomorphic, perceiving agent who is able to respond to communication. In strategy and roleplaying games, the player typically enters commands from a menu, and uses mouse clicks or similar to indicate the positions to where the characters or unit should move.

There are interesting cases that are somewhat ambiguous in this respect. In the action-roleplaying hit game *Diablo* (1996), combat control operates through symbolic interaction, as in other roleplaying games, and the player navigates the avatar through mouse-clicking at designated positions. However, because the clicking happens so fast, the experience nevertheless approaches a sense of "pulling" the avatar through a tangible interface.

## 3.9 Proxy Embodiment

The prosthetic avatar plays with the phenomenology of the body, by extending its dual nature into screen space. The on-screen marionette becomes part of that through which a world comes into existence, part of the player's "I can". The player

is being re-wired and re-directed towards "important figures against indifferent backgrounds" through the integrated prosthetic apparatus of controller and on-screen avatar.

When we play, because the avatar extends the *body* rather than pure agency or subjectivity, screen space becomes a world that we are subjected to, a place we inhabit and where we struggle for survival. We learn to intuitively judge, like we do in the real world, the opportunities and dangers of the environment. James Gibson's formulation of the ecological dimension of visual perception is a fitting description of the dual nature of avatarial embodiment:

> Any substance, any surface, any layout has some affordance for benefit or injury to someone. Physics may be value-free, but ecology is not (Gibson 1986[1979]:140).

In general terms, the prosthetic avatar re-configures our body's "ecology", in Gibson's terms. The avatar alters our bodily space so that it (magically) extends into screen space, across the material divide, a new field of affordances, a new perceptual ecology.

However, this explanation does not yet address our intuitive experience, in navigable 3D environments, of also being *transported* into screen space through the prosthetic avatar. As noted above, the relationship between the avatar as a bodily extension and the avatar as embodied presence is a paradox. Merleau-Ponty's theory of the body's dual nature as both subject and object can help us clarify the nature of this paradox.

It seems to me that the avatar does indeed re-locate our body into screen-space, not as fiction but through a re-configuration on the level of the phenomenology of the body. The avatar is no mere extension, I will suggest, but a prosthetic *proxy*, which extends the phenomenal body while also – unlike a walking stick or a musical instrument – filtering or *channeling* our body into shape and place, into screen space, and thereby also in an important sense "hiding" and protecting it, making it irrelevant in its original (non-extended) configuration. However, the extended marionette performs this operation only in a very limited way, as compared to the more radical channeling of the navigable camera-body.

The marionette's key function is this: while it *extends* the body-subject and the corresponding bodily space into screen space, as argued above, it functions as a stand-in or replacement of our objective body, a proxy on our behalf. The prosthetic avatar allows us to engage in a playful and temporary *separation* of subjective and objective body, across the material divide. In the moment of being captured by and channelled through the avatar, the body that is *here*, safely seated on the couch, will be rendered irrelevant in its objective dimension, as an object among other objects, in Merleau-Ponty's terminology – as that which is being touched. Because the extended body-subject is instead directed towards what is happening on the screen, the marionette comes to function as a replacement of the objective body, becoming the new, temporary manifestation of the player's body in external space. In other words: as a body-subject I may be throwing myself into the playground, no barrels held, but as body-object I am participating through a stand-in, a proxy, an incarnation of myself, an avatar.

This means that our experience of being taken into the game world by our avatars can be explained without recourse to fictionality. Undoubtedly, make-believe plays an important role, insofar as computer game marionettes would also be conceived as humanoid agents or characters who somehow acts on our behalf. Nevertheless, proxy embodiment is a trick at the level of the phenomenology of the body, not a trick of fiction. The sense of bodily immersion that is involved in avatar-based play is rooted in the way in which the body is able to intuitively re-direct into screen space a perception of itself as object, which is the perception of itself as part of external space. A mouse cursor cannot function as a proxy in this way, not because it lacks fictional elaboration, but because it has no objective presence within screen space.

The principle of prosthetic proxy embodiment has been a dominant paradigm in computer games since *Spacewar!*. It responds to a desire to enter into the gameworld not as yourself, in your actual physical body, but as incarnated in another body, a body made to fit all kinds of strange and alien worlds, and into which you can seamlessly transplant, via minimal movements of eyes, hands, fingers.

Let me note, here, that proxy embodiment, as a general interface paradigm in computer gaming, is incompatible with two other general principles of tangible interaction in real-time environments. First, in what we may call *direct interaction*, the user or player is allowed to point at or touch objects in the on-screen environment directly, in a way that simulates Sudnow's "extending touch", but which leaves no place for a proxy body as mediator. This can be done via mouse and cursor, via a pointing device like for example a light-gun, via a touch-screen interface, or to a certain extent via motion control interfaces. In all such games of direct tangible interaction, the only "avatar" is your familiar physical self, in front of the screen. Direct tangible interaction is typically found in casually oriented games like, for example, *Sneezies* on the Iphone or the online Flash game *Shoot Bin Laden*.

Secondly, the principle of *1:1 motion control*, as currently promised by the Wii MotionPlus, Kinect, and Playstation Move peripherals, discards the idea of proxy embodiment in favour of projecting instead an on-screen body that *mirrors* the shape and movements of the player's physical body, in as much detail as possible. Again, it is your familiar physical body that is made the embodied subject during play, but this time in a dialogue with its own mirrored self across the divide, its projected mirror image. It is through this mirror image, rather than through a prosthetic avatar, that the player gets to be in a simulated direct physical contact with the elements in on-screen game space.

Full-body mirroring control, as an alternative to standard avatar control, opens up a range of playful possibilities, while at the same time closing down or marginalising experiences that are specifically linked to the principle of proxy embodiment. In particular, the player's *self-movement* or locomotion within on-screen game space, which is at the heart of avatarial embodiment in computer games, becomes a major challenge in motion control interfaces, as it requires some kind of multi-directional treadmill interface of the kinds that have been tried out in Virtual Reality installations. 1:1 motion control also implies that your embodied

self in the game cannot, for example, do triple jumps Mario style or fall down a deep ravine, unless some kind of proxy representation, some kind of avatar, is being temporarily added to the mix, detached from the straitjacket of the 1:1 mirroring.

## 3.10 Telepresence and the Camera-Body

Extended 2D avatars or marionettes do, in a sense, "transport" our body into screen space, in so far as we can relate to them as manifestations of our own body as object in external space. It would not make sense, however, to say that prosthetic marionettes re-*locate* our bodily space – our spatial self-awareness as bodily subjects – even if they do extend and re-shape it. They are *remotely* controlled proxies. Whereas the movements of our fingers are being entirely swallowed by screen space, integrated into our bodily self-awareness only in proportion to their on-screen value, our *visual* perception (as well as, although relatively less significant, our hearing) will still operate from a bodily "here" that is outside screen space. With 2D avatars, bodily space remains anchored in physical space, even if extended and projected into screen-space via the prosthetic marionette. In this respect, marionettes are comparable to its non-prosthetic siblings like figures on a flannelgraph or pieces on a chessboard.

In terms of their spatiality, traditional 2-dimensional game spaces are framed surfaces, contained within physical space, and in this respect comparable to other framed sub-spaces like a whiteboard or a computer desktop. The framed screen of *Donkey Kong* (1981), is a *minature world*, like a fish tank or a Lego village. It becomes a miniature when we relate to it from the outside, perceiving it as part of *this space* here, the space of my natural body. The miniature world, or "micro-world", in Sudnow's terms, has a very strong and distinctive appeal. In *Miniature Gardens & Magic Crayons: Games, Spaces & Worlds* (2003), Chaim Gingold suggests the metaphor of the miniature garden:

> A miniature garden, like a snow globe, model train set, or fish tank, is complete; nothing is missing, and nothing can be taken away. Clear boundaries (spatial and non-spatial), overviews, and a consistent level of abstraction work hand in hand to make the miniature world believable, complete, and tractable for both the author and player. Miniatureness makes a garden intelligible in the mind of the player, and emotionally safe in his heart. Miniature scale, clear boundaries, and inner life help players to wrap their heads, hands, and hearts around a world (Gingold 2003: 7–8).

However, avatarial embodiment through a camera-body, for which the First Person Shooter genre would be the ideal type, is a very different kind of game. Navigating real-time 3D environments, we do not perceive the environment from the outside, as if looking into a fish tank, but we are very acutely *present* in that other space. So the distinctive appeal of miniature worlds is lost. Channeled through the first-person avatar, in the heat of the action, the "here" of my bodily space is no longer my physical body's natural space, in front of the miniature sub-space of the screen. Instead, paradoxically, my new "here" has been re-located into screen space there; I am *tele-present* in that space. When captured by the avatar, I am phenomenally present elsewhere.

How does this work? Unlike 2D avatars, the camera-body of the first person avatar offers the *screen itself* as the principal prosthetic hookup, working as an extension of our body's "motor project" of moving-and-looking. The physical mechanism that allows this radical re-wiring of bodily space to take place is referred to as *vection*: the experience of bodily locomotion caused by visual perception alone. Our locomotive vision – that is: the way we move not just our eyeballs but our whole body as an organ of visual perception – has been detached and re-attached to the minimal movements of our hands and fingers. Our spatial self-awareness has become relocated, so that we are moving and perceiving intentionally only in relation to the screen-space of our our temporary camera-body, our avatar. Our body has become "polarised", in Merleau-Ponty's terms, through the first person avatar.

Prosthetic locomotive vision through an avatarial camera-body has been a dominant paradigm of action-adventure computer gaming since the mid-1990s. It has manifested itself strongly in the design of the controller hardware. The characteristic and still dominant dual-axis paradigm was established in the mid-1990s through the so-called "mouselook" on the PC platform, first made default in *Quake* (1996), and through the twin-stick setup pioneered by Playstation's *Dual-Shock* controller.

We should note that marionettes do not necessarily need to be incorporated as prosthetic proxies in order to be playable. Because they are remotely controlled and observed from the outside, it is possible to relate to them as regular external objects during play, lining them up with other on-screen objects in order to create the desired effects. In Merleau-Ponty's terms, we could say that marionettes may be moved "with the aid of the body" rather than being "moved directly". In contrast, the camera-body cannot be "moved with the aid of the body" as an external object, because we cannot look at our own eyes in the same way as we can look at our own hand. You could say that our eyes are more radically "on this side of things" than our hand. As consequence, in a First Person Shooter, you *have to* learn to internalise camera control, or you will not be able to play the game at all.

So we could say that the navigable camera has a radical subject-status, which means that it is de facto prosthetic in nature; there is no other option. After you have learned to incorporate the camera as a bodily habit, so that you are in intuitive control of your own new body, if the computer then takes camera control away from you, if only for a brief second, this will *not* break the strong prosthetic link, but instead produce a sensation of being moved, of being taken for a ride.

The built-in prosthetic nature of the navigable camera means that when you start playing an FPS for the first time in your life, a choice between all or nothing quickly presents itself: until you learn to incorporate this strange perceptual apparatus, responsive to the slightest movement of your fingers, as second nature, as a prosthetic organ, you will be permanently disoriented, like a drunk person, unable to cope with anything in the on-screen environment, and possibly also feeling a bit sick. When habituated, however (if you ever get that far), your new camera-body becomes like a part of your own body, part of the *invisible* in Merlau-Ponty's terminology, part of that for which there are visible objects.

> I observe external objects with my body, I handle them, examine them, walk round them, but my body itself is a thing which I do not observe: in order to be able to do so, I should need the use of a second body which itself would be unobservable (Merleau-Ponty 2002 [1962]:104).

After the 3D revolution, it is through this kind of proxy body that we now belong to and inhabit the world, looking (and listening) for opportunities and dangers, investigating objects, peeking around corners, scanning the horizon. Channeled through and "transplanted into" the 3D avatarial apparatus, we are like Merleau-Ponty's blind man with a stick:

> Once the stick has become a familiar instrument, the world of feelable things recedes and now begins, not at the outer skin of the hand, but at the end of the stick (175–176).

Similarly, we could say that when playing competently a First Person Shooter, the world of visual appearances begin behind the surface of the screen. The screen, when appropriated as camera-body, has become gestalt, the tacit "third term" against which a structure of background and figure appears (Merleau-Ponty 2002 [1962]:115).

In the phenomenological sense, therefore, the notion of remote control is no longer accurate when we move from 2D worlds to navigable 3D. The incorporation of the screen as a new perceptual organ sets up a new, "double horizon of external and bodily space" that is not directed *towards* screen-space, as when playing through a marionette into 2D space, but which is spatially re-located and anchored within it. The first person avatar, therefore, is a distinctive modality of perceptual immersion. Being re-located and *telepresent* through the camera-body means that we have become perceptually encapsulated without being sensorially encapsulated.

It is important to emphasise that the prosthetic 3D avatar, like its 2D counterpart, is a *proxy*, not just a mechanism of prosthetic locomotive vision. The camera-body that extends from our fingers is not an extension of a pure vision, not a vehicle of visual "perspective". It is an extension of our moving-and-perceiving body, in its dual nature as both subject and object in the world. Crucially, this implies objective embodiment within the screen space. By definition, playing through an "avatar" means belonging to and being affected by the screen-projected environment – otherwise there would be no ecology, no threat or obstacle, no struggle, no being-in-the world, no game. In comparison, a navigable *workspace camera*, as typically found in graphical modelling and animation software, is distinctively body-less. While it does offer prosthetic vision, it is not submitted to any ecology, obeys no physical laws of the environment, is not recognised by any other agents, is not being shot at, in short: it lacks existence as an external object in the environment.

The immersive experience of first person proxy embodiment is neither fictional telepresence nor an *illusion* of telepresence. Analysing it through the theoretical prism of *Phenomenology of Perception*, we must conclude that our embodied self *is* actually being re-located, transported into screen space. Our familiar *body-image*, our intuitive awareness of *where* we are as perceiving and acting subjects, is being dramatically altered once we step into a prosthetic relationship with the avatarial camera-body. For the body-subject, when directed towards its tasks and aims as they come to light through locomotive visual perception, the screen as an external

object has been made irrelevant, or in Merleau-Ponty's terms, invisible, *non-existing*. In the moment of being captured by the first person avatar, there is no longer a bodily space *here*, in front of the screen, from which actions extend. The only way to escape this situation would be to step back from the avatar, to detach from it, acting and perceiving independently of the camera-body.

## 3.11 Third Person

A possibly unexpected implication of this approach is that also the wider group of so-called "third-person" 3D action-adventures, from *Tomb Raider* (1996) to *Grand Theft Auto III* (2001), must be included in the category of "first person", in spite of the central role given to marionette control. The key parameter in deciding their status will be the function of the virtual camera, which in these kinds of games is only *indirectly* controlled, in various kinds of ways, *via* the prosthetic marionette, as if being pulled by the marionette via an invisible string.

In some games, as in the early classic *Tomb Raider*, the exact behaviours of the tag-along camera, and how it ends up framing the action in any particular situation, is entirely controlled by automatic procedures. In other games, notably the influential *Prince of Persia: The Sands of Time* (2003), while the link to the marionette is still intact, the virtual camera can be moved 360° around the marionette via the right analogue stick or mouse. In both cases, it is indeed as if the avatarial "follow-cam" takes the role of a "second body which would itself be unobservable", whereas the marionette carries the full burden of objective embodiment – by facing acrobatic challenges, being attacked and shot at, falling down ravines and so on.

Most of the time, at least in its ideal form, the relative independence of the follow-cam in relation to the marionette will be geared towards framing the action in adequate and predictable ways, always respecting the unbreakable bond to the marionette and the player. However, it is worth noting that the camera can also become more autonomous, unpredictable and purposefully inadequate, most typically in games of the "survival horror" sub-genre of the action-adventure, like the *Silent Hill* series (1999). This unpredictability and detachment of the camera from the player's prosthetic apparatus undermines a sense of coherent avatarial embodiment (producing quite unsettling effects), approaching instead the kind of projected "embodiment" that is characteristic of the language of cinema.

In spite of these modifications and exceptions, the main point I want to make is that an indirectly controlled camera, to the extent that it functions as a *navigable* camera, and to the extent that it is part of an apparatus of objective embodied presence, is nevertheless *avatarial* in its function, undermining a sense of miniatureness in favour of encapsulating telepresence.

To the extent that the player can navigate the third-person camera – however indirectly – in a predictable and intuitive fashion, it embodies the function of locomotive prosthetic vision. It will be integrated as part of a re-located bodily space, and linked to the objective presence of the marionette. It seems to me that this is true even if a follow-cam does not give the player the same level of exact

control over locomotive vision as in a First Person Shooter. We could say that in third-person 3D, the re-located player operates his or her marionette like an extended hand, much like in a traditional 2D game, only this time from a position *inside* the screen-rendered world, travelling along with the marionette like a Siamese twin.

## 3.12 Corporeality

Finally, back to the question of simulation. Surely our bodies inside screen-rendered synthetic space must be, at the end of the day, *simulated* bodies? True enough, in a racing game, when I am driving through the wintery landscapes of Sweden, in my blue Subaru Impreza, while still seated on the couch in my living room, controller or steering wheel peripheral in hand, simulation and fiction is very much a part of it, on many levels. However, my argument is nevertheless that I am, in the moment of play, *actually* being re-embodied within a different space. Proxy embodiment is no "conceit", as Rehak seems to imply, or a projected or "diegetic" embodiment constructed from moving images, like a mental simulation, as in cinema. Avatarial space is real external space, navigable, inhabitable, negotiable. When I am playing, I am actually there, as a composite of flesh and technology, objectively existing within synthetic space. Phenomenological analysis, as I have attempted to show in the above, helps us describe this kind of extended embodiment and understand what is going on.

The aspect of simulation comes into play on two primary levels. First, as argued above, the experience of tangible physicality, of being inside synthetic space *as if* being in a world that shares the materiality of the world of natural embodiment, is indeed a conceit, a simulation.

Secondly, simulation comes into play, I think, in terms of the necessary *familiarity* of the particular experiences of avatarial embodiment. Computer games are perceptual simulations insofar as they evoke familiar corporealities, activating and utilising already established bodily schemas (or "images") and bodily spaces. Without this familiarity, which is a resonance on the level of embodied self-awareness, first person avatars would be far too hard to incorporate as bodily habit.

To illustrate this final point, without going into much detail, I would like to point out how first person avatars, as we are currently familiar with them in their actual design, owe much of their distinctive corporeality to three established bodily schemas.

The first, which is implied by the term navigable (or virtual) *camera*, is the monocular vision of the cinematographic camera lens. First Person Shooters are especially characteristic in this respect: the camera-body is also a camera-*gun*, as if the weapon has been attached on top of it, merging looking and aiming into one movement. The player is locked into a tunnel vision along the barrel of a gun (– expanding the virtual focal length would produce a fish-eye effect), optimised for fast and precise aiming, providing a strong sense of speed and disorientation, and encouraging the persistent awareness of threat. This avatarial

body is highly focused, highly restrictive, and, one could argue, inherently paranoid in nature. In popular genre leaders like *Half-Life* (1998) or *Halo*, the player not so much walks or drives as *floats* around the environment, embodying a type of machine-like corporeality for which the closest real-world comparison would be a Steadicam.

Secondly, an important capability of our natural embodiment that has been reproduced in the 3D action-adventure genre is what we may call, for the sake of simplicity, *dual-axis* movement: our body is able to operate locomotion and turning independently of each other, on separate axes, so that the direction in which we are looking does not have to be the direction in which we are moving. Without the simulation of this particular embodied capability, there would hardly be any 3D action-adventure, and there would be no need for the characteristic twin-stick controller interface that dominates the market. This flexibility of looking and turning is also, I would guess, an important factor in turning many people off so-called "hardcore" avatar-driven games, as the dual-axis setup can be tricky to learn for inexperienced players.

Finally, as mentioned above, and as pointed out by James Newman, controlling a prosthetic first person avatar evokes the bodily disposition of *driving* or piloting a vehicle. In a very concrete sense, this is evident from comparing computer game controllers with the control devices for remote-controlled vehicles of various kinds. If we look at scientific and military technology, there is a clear analogy between telepresence through avatars and telepresence through so-called drones, or Remotely Operated Vehicles (ROV).

This *vehicular* nature of prosthetic avatars is further emphasised by the typically vehicular and machine-like corporeality designed into most first person bodies, as they are being conventionally implemented in commercial games. This familiar corporeality is obviously evident in racing games and other games that explicitly simulate vehicular embodiment: flight simulators, space combat games, and so on. However vehicular embodiment is also typical for the First Person Shooter, which only very rarely attempts to simulate, on the perceptual level, something that would approach a human, walking body.

The evocation of driving or piloting as a familiar bodily schema is a natural response, it seems to me, to the basic nature of prosthetic avatars. The notion of *driving* is not a metaphor in this case; the reason why computer game avatars *feel* like piloted vehicles or machines is that they *are* actually driven by the player. This is the main reason why game designers and storytellers in most cases choose to elaborate on a vehicular experience rather than attempt to break away from it.

## 3.13 Proxy VR

Summing up, the phenomenology of proxy embodiment in computer games is a unique and playful paradox. The prosthetic avatar functions both as the player's bodily extension into screen space *and* as a proxy or replacement for the player's

body as an object in external space. This is a highly unique if we compare with the examples discussed by Merleau-Ponty in *Phenomenology of Perception*. It is also unique if we compare with other forms of bodily play, like sport and various forms of embodied make-believe, although there are clear analogies to puppetry and remote-controlled vehicles.

Avatarial embodiment in 3-dimensional environments, via a navigable camera, is different from embodiment through a marionette only, even if the basic principle of prosthetic proxy embodiment remains the same. The virtual camera's prosthetic locomotive vision re-locates the player in terms of his or her intuitive bodily awareness, and sacrifices the safe appeal of the miniature world for the sake of perceptually encapsulating telepresence. Whereas proxy embodiment via marionettes only, as we find in traditional 2-dimensional game spaces games, would be comparable to driving a radio-controlled miniature truck or aeroplane, first person embodiment is more accurately compared to driving a real car. An important difference, obviously, is that the 3D avatar takes us for a ride into synthetic space only, which implies no (or at least, in comparison, very modest) danger or risk to our physical body.

Prosthetic telepresence is not a conceit or mental projection, but actual embodied presence. In the cinema, in contrast, there is no actual space to be inhabited, only images, and there is nothing off-screen except our own mental projections.

The central aspect of simulation involved in our engagement with prosthetic avatars in computer games is the simulation of tangibility. Experiencing tangibility means that it is *as if* we were not just crossing the material gap but in fact closing it; it is the conceit of continuous materiality.

At the next level, avatars also simulate familiar corporealities, evoking familiar bodily schemas in order to be accessible. Adding to this come layers of fictional and narrative significance, starting with a projection of the avatar as a humanoid agent, a character. These fictionalising layers add further substance and meaning to the basic phenomenological mechanism of prosthetic proxy embodiment. In this respect, we may compare avatar-based 3-dimensional computer game worlds with theme parks: there are layers of fiction all around us, but our own being there – perceiving, acting, and being acted upon – is neither fiction nor illusion.

Finally, is prosthetic telepresence Virtual Reality? Not if we mean the kind that is being experimented with in various types of VR installations, and which has been fantasised about in *Star Trek*'s Holodeck, *The Matrix*, or James Cameron's *Avatar*. Proxy embodiment does not offer a duplication of our own body in virtual space. Instead, it extends from our body as a hard-earned habit, allowing us to inhabit synthetic space through a prosthetic vehicle, a different kind of body. During play we are piloting, via minimal movements of our eyes and fingers, a different body in a different world. Still, telepresence by proxy is no less immersive than its more ambitious VR sibling. In navigable 3D gameworlds, perceptual re-location does not depend on sensory encapsulation, but follows from the intentional nature of bodily space.

## Bibliography

Carr, Diane. 2002. Playing with Lara. In *Screen play, cinema/videogames/interfaces*, ed. Tanya Krzywinska and Geoff King. London: Wallflower.

Dovey, Jon, and Helen Kennedy. 2006. *Game cultures: Computer games as new media*. Milton Keynes: Open University Press.

Eco, Umberto. 1976. *A theory of semiotics*. Bloomington: Indiana University Press.

Fuller, Mary, and Henry Jenkins. 1995. Nintendo and new world travel writing: A dialogue. In *Cybersociety: Computer-mediated communication and community*, ed. S. Jones. Thousand Oaks: Sage. Also available at http://www.stanford.edu/class/history34q/readings/Cyberspace/FullerJenkins_Nintendo.html.

Gibson, James J. 1986. The ecological approach to visual perception. In *Resources for ecological psychology*, ed. R.E. Shaw, W.M. Mace, and M.E. Turvey. London: Lawrence Erlbaums Associates. Original edition, 1979.

Gingold, Chaim. 2003. Miniature gardens & magic crayons: Games, spaces, & worlds. Master's thesis, School of Literature, Communication and Culture, Georgia Institute of Technology, Atlanta. Also available at http://www.slackworks.com/~cog/writing/thesis/toc.php.

Klevjer, Rune. 2007. What is the avatar? Fiction and embodiment in avatar-based singleplayer computer games. Doctoral dissertation, Department of Information Science and Media Studies, University of Bergen, Bergen.

Linderoth, Jonas. 2005. Animated game pieces. Avatars as roles, tools and props [online]. *Aesthetics of Play Conference Proceedings* [cited 12 May 2006]. Available from http://www.aestheticsofplay.org/king.php.

Merleau-Ponty, Maurice. 2002. *Phenomenology of perception*. London: Routledge Classics. Original edition, 1962.

Newman, James. 2002. The myth of the ergodic videogame. Some thoughts on player-character relationships in videogames [online]. *Game Studies* 2(1) [cited 25 July 2005]. Available from http://www.gamestudies.org/0102/newman/.

Rehak, Bob. 2003. Playing at being: Psychoanalysis and the avatar. In *The video game theory reader*, ed. M.J.P. Wolf and B. Perron. London: Routledge.

Ryan, Marie-Laure. 2001. *Narrative as virtual reality. Immersion and interactivity in literature and electronic media*. Baltimore: The Johns Hopkins University Press.

Salen, Katie, and Eric Zimmerman. 2004. *Rules of play: Game design fundamentals*. Cambridge, MA: MIT Press.

Sudnow, David. 1983. *Pilgrim in the microworld. Eye, mind and the essence of video skill*. New York: Warner Books.

Wilhelmsson, Ulf. 2006. Computer games as playground and stage. In *Proceedings of the 2006 international conference on Game research and development*. Perth: Murdoch University.

## Games

Breakout. 1978 (coin-op). Developed by Atari. New York/Lyon: Atari.

Call of Duty: Modern Warfare 2. 2009 (Xbox 360). Developed by Infinity Ward. Santa Monica: Activision.

Diablo. 1996 (PC Windows). Developed by Blizzard. Irvin: Blizzard.

Donkey Kong. 1981 (coin-op). Developed by Nintendo. Kyoto: Nintendo.

Grand Theft Auto III. 2001 (Playstation 2). Developed by DMA Design. Windsor: Take Two Interactive Software.

Half-Life. 1998 (PC Windows). Developed by Valve. Fresno: Sierra On-Line.

Halo: Combat Evolved. 2001 (Xbox). Developed by Bungie. Redmond: Microsoft Game Studios.

Marble Madness. 1984 (coin-op). Developed by Atari. New York/Lyon: Atari.
Pac-Man. 1980 (coin-op). Developed by Midway. Chicago: Midway.
Pong. 1972 (coin-op). Developed by Atari. New York/Lyon: Atari.
Prince of Persia: Sands of Time. 2003 (PS2). Developed by Ubisoft Montreal Studios. Paris: Ubisoft.
Quake. 1996 (PC Dos). Developed by Id Software. Richardson: Id Software.
Silent Hill. 1999 (Playstation). Developed by Team Silent. Tokyo: Konami.
Spacewar! 2006 (Java version). Developed by Russel/Graetz/Wiitanen. Silverman/Silverman/Gerasimov. Available from http://lcs.www.media.mit.edu/groups/el/projects/spacewar/. Original version, 1962.
Super Mario 64. 1996 (Nintendo 64). Developed by Nintendo. Kyoto: Nintendo.
Super Mario Bros. 1985 (Nintendo Entertainment System). Developed by Nintendo. Kyoto: Nintendo.
Tomb Raider. 1996 (Playstation). Developed by Core Design. London: Eidos Interactive.
World of Warcraft. 2004 (PC Windows). Developed by Blizzard. Irvin: Blizzard.

# Chapter 4
# Computer Games and Emotions

**Petri Lankoski**

## 4.1 Introduction

An intriguing question in the philosophy of fiction is on how can we be moved by the fates of the fictional characters or how we fear a fictional monster? This question, in the context of literature and film, has been addressed, for example, by Lamarque (2004/1981), Carroll (1990, pp. 61–96), and Walton (1990, pp. 240–289). This same question is relevant in the context of computer games: how can players be afraid in the game events when obviously, for example, a monster in a horror game cannot threaten the players?

Hjort and Laver propose that the connection between emotions and art is even more fundamental:

> It is generally assumed that art and emotion are inextricably linked, as is shown by even the most cursory account of the history of critical thinking about music, painting, literature, or theatre (Hjort and Laver 1997).

Carroll (2006) agrees that many aesthetic experiences provoke emotions, but makes a reservation that emotions are not necessary for all aesthetic experiences (p. 93). However, if emotions are typical in aesthetics experiences, understanding how emotions and gameplay relate is relevant in understanding the aesthetic experience of playing computer games.

According to Damasio (2005), the important function of emotions, in general, is to guide decision-making and attention (pp. 173–177). This implies that emotions are a vital part of computer games, as games are typically about decision-making (I return to this below). In addition to emotions, the decision-making is guided also

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by the goals, because they give means to reason and determine which outcome is more advantageous in a given situation. Without a preferred outcome, the decisions are meaningless.

While it is not my intention to provide the definition for computer games, some consideration of this is needed to argue why goals are important when discussing computer games. Goals are very typical components of games. Various authors have highlighted the importance of goals in games by making goal-directed conflicts as an important (or even defining) structural component (Costikyan 2002, pp. 11–17; Salen and Zimmerman 2004, p. 96; Järvinen 2008, pp. 53–54, 69–72; Björk and Holopainen 2005, pp. 14–19). For example, *SimCity* (Maxis Software Inc. 1989) is considered as an example of a borderline case of games because it does not have goals (Juul 2005, pp. 28, 47, 199). However, the game has two scoring mechanisms (city score and public opinion) and it has a (non-fatal) failure condition (the players are unable to act when they have no money). Hence, the system (e.g., the scoring) implies goals and enables players to judge what is more advantageous.

Emotions are also important in the social domain—when we are interacting with others. Empathy with characters is also important in computer games: Morrison and Ziemke (2005) argue that players have empathic reactions with computer game characters (see also, Perron 2009, pp. 125, 140–141). They ground their argument to neurological studies. I elsewhere argue that the players' engagement with character-based games can be understood via modes of goal-related engagement and empathic engagement and engagement with NPCs through empathic engagement (Lankoski 2011; Lankoski 2010, pp. 21–28).

However, the above-mentioned perspectives are not enough: It has been demonstrated that negative events in a game can induct positive emotions to players, which might be explained by the cuteness or beauty of the presentations of the negative consequences (Ravaja et al. 2006). Moffat and Kiegler (2006) show empirical evidence to show that music influences a person watching a cut-scene. It has been argued that that the music influences the playing experience as well (Ekman 2008, pp. 22–25). One needs only to turn off the sounds from the *Silent Hill 3* (Team Silent 2003) or *Thief Deadly Shadows* (Ion Storm 2005) to see how the games lose their emotional impact. Music and beauty are similar to empathic engagement, because they cannot be (fully) explained by the goal-related emotion theories.

The approach in this essay is based on models and theories in the cognitive science. I propose that to understand why games are engaging, we must understand how goals, events, sounds, and graphics in games and affects are connected and how the different emotion mechanisms interoperate. To achieve this, I use various cognitive theories and concepts (1) as analysis foci to categorize game events and choices available for a player and (2) explain the probable impact of the game events, objects, and environment.

In this essay, I argue that various perspectives are needed in order to understand the players' playing experience(s). My main goal in this essay is to study how players engage in games emotionally, namely how the emotions of the players and

the gameplay is connected. To do this I look at how different aspects of the game relate to the emotional experience:

1. How the structural features (e.g., goals, action possibilities, events) of the game relate to the experienced emotions.
2. How visuals and sounds modulate the emotional experience.

For this purpose, I describe game structures, visuals, and sounds and I use the cognitive emotion theories to predict likely emotional associations for these. I build on Antonio Damasio's (2005) and Power and Dalghleish's (1997) theories on emotions. Power and Dalgleish's theory is based on the emotion theory by Johnson-Laird and Oatley. These theories posit the same linking between goals and goals status evaluation, but Power and Dalghleish's (1997) theory provides more developed account of disgust. Damasio acknowledges Johnson-Laird and Oatley's theory as a compatible one with his theory (Damasio 2005, p. 201).

The basic emotion theory does not offer an answer to the question: why people find beautiful things pleasurable or why music elicits different emotional reactions. To answer this I propose that the theory of *processing fluency* is useful (Reber et al. 2004) in terms of understanding the pleasure relating to beauty. This theory of processing fluency has similarities with Sloboda and Juslin's (2001) theory on how music elicits emotions. Sloboda and Juslin's approach is used as a starting point in this essay to study emotions and sounds. I need to stress that these theories are not part of the same theory as Power and Dalghleish (1997), but, the theories of Reber et al. (2004) and Sloboda and Juslin (2001) are all cognitive appraisal theories and, hence, have the common premises. Hence, I believe that the theories can be used to create a holistic theory of gameplay emotions.

The structure of this essay is as follows: First I look at the basic mode of the engagement: goals and emotion. After that I focus on how the visual and auditive aspects (that are not explainable with the goal-related model) of games contribute to the emotional experience; the aspects that are discussed are facial and bodily expressions of a character, visual beauty, and sound and how these aspects relate to emotions.

## 4.2 Goals and Emotions

First, I discuss the nature of goals in games. After that, I describe games using the above-presented basic emotions theories to link probable emotions within the event structure of a game. My goal here is to isolate and exemplify the features that are relevant in goal-related engagement.

### *4.2.1 Goals*

Games propose goals to a player. In some games, such as *Tetris* (Pazhitnov 1985), the player needs to accept a proposed goal in order to keep playing; ignoring the

goal will lead to a prompt game over. On the other hand, a game can have a goal structure that regulates progress in the game: in order to get to the next game level a player needs to attain a goal.

*Grand Theft Auto: Vice City* (Rockstar North 2002) belongs to the group of games in which players can choose to ignore the regulating goal structure without much penalty and generate their own goals. The players have a rich game world to explore with potential challenges, even without following the goal structure. Below, to simplify the argument, I consider only situations in which players accept the goals made explicit by a game: *in order to keep playing do A* or *in order to progress do B*. In any case there are also the player's goals for playing a game, which can influence the generation of sub-goals.

The sub-goals are goals inferred from the more generic goals (of a game, game level and playing) in relation to a specific situation. For example, in Tetris, a player needs to generate a sub-goal for placing a tile. Sometimes the sub-goals generated are impossible: either it is not possible to complete the sub-goal, or the sub-goal does not lead to progression toward the main goal. Then the player needs to change his hypothesis of how to reach the main goal and generate new sub-goals.[1]

In some games, there are multiple ways to complete a game level and each solution requires different sub-goal generation. One game that shows this is *Deus Ex* (Ion Storm 2002). In the game, usually a player can choose whether to shoot her way through a level or sneak past enemies. Therefore, a player's goals, skills, and preferences can have a great impact on sub-goal generation (the choices will require different breakdowns of the sub-goals). Also, failure in sneaking past the enemy will change the situation and trigger a reevaluation of the situation, which possibly requires a new set of sub-goals (or replaying from a game save).

### *4.2.2 Basic Emotions*

Antonio Damasio (2005) distinguishes primary and secondary emotions. *Primary emotions* are pre-organized speedy evaluation of a situation where the body state and cognitive processing is altered in the manner that fits to a situation, for example, fear triggered by an entity X includes physical reactions and preparation to action (or in some cases freezing in fear). One does not need to recognize the entity X as, for example, a bear or snake in order to fear it. All that is required is that early sensory cortices detect and categorize the key features of the entity as something dangerous. However, with speed comes a possible inaccuracy such as categorizing a picture of a snake as a real snake. The responses can be innate or based on one's history of interaction with the environment. Notably, later the inferences will shape people's responses of a situation, but emotions including body responses and

[1] I am basing this discussion on ideas presented by Walton (1990, pp. 138–187) and Shaun Nichols (2004). However, my argument here does not rely on their theoretical premises.

**Table 4.1** Basic emotions, goal status evaluations that the basic emotion is linked to, and typical physiology/action tendency of the emotion

| Basic emotion | Goal status evaluation | Physiology/action tendency |
|---|---|---|
| Happiness | Progression toward or reaching a goal | Low heart rate, tendency toward risk avoidance or to continue with the goal |
| Fear | Physical or social threat to a self or where a current goal is in danger | Tension in muscles, dry mouth, high heart rate, low skin temperature, vigilance, avoidance behavior, raised action readiness, or freezing |
| Sadness | The loss or failure of a valued goal | High heart rate, low skin temperature, no typical action tendency |
| Anger | A goal is blocked or frustrated | High heart rate, high skin temperature, tendency toward revenge |
| Disgust | A refusal of a concrete or abstract thing that is repulsive in relation to a goal, as the refusal seems to cause physical or psychological contamination | Nausea, increased salvation, low heart rate, avoidance behavior |

Source: Power and Dalgleish (1997, pp. 413–425), Oatley (1992, pp. 55, 350–363)
Note: According to Paul Ekman, all basic emotions are associated with typical facial muscle activations and typical expressions (e.g., Ekman 1999b), but these are not included in this table

changes in cognitive processing have already triggered before that (Damasio 2005, pp. 125–164).

*Secondary emotions* are triggered by conscious and intentional consideration of a (hypothetical) situation. The as-if consideration triggers the automatic and involuntary changes in the body state and in cognitive processing. For example, fear is triggered when considering a risky option or encountering a wolf (Damasio 2005, pp. 134–139).

Damasio's theory proposes that people categorize events as positive (correlating positive emotions) and negative (correlating negative emotions). Mick Power and Tim Dalgleish (1997) suggest an emotion model where different *basic emotions* are linked to different goal status evaluations. These are shown in Table 4.1.

Interestingly, the basic emotions and mechanisms that trigger them seem to be intercultural (Ekman 1999a). Thus, in some degree, discussion in this paper should be applicable across cultural borders.

*Complex emotions* are derived from the basic emotions and include with the appraisal of context or combination of different basic emotions. For example, worry is about an unwanted outcome that might happen in the future (Power and Dalgleish 1997, pp. 413–421). In these terms, the horror genre draws more from disgust than from fear.

Power and Dalgleish (1997) talk about two routes to emotion: the *appraisal of a goal related event* (an event can be external, e.g., a snake; internal, e.g., stomach pain; or propositional, i.e., thoughts and reasoning) and a *direct access* (an event triggers an emotion because of habituation) (pp. 415–427). Damasio's primary emotions could be said to include these both. In addition, Power and Dalghleish (1997) propose that the emotion process has a propositional level in which

reasoning induces emotions via either appraisal or direct access (pp. 415–421). This propositional-level process matches with Damasio's secondary emotions.

These theories propose that the emotions that a player experiences while playing are real (in contrast to be make-believe); for example, we can be afraid of something that exists only in a game. This is in contrast to a well-known theory by Kendal Walton (1990) that proposes that a player (of make-believe) would only experience quasi-fear: he argues that we cannot *really* be afraid of something if we know it is fictional (the monster cannot physically hurt us). Here, I disagree also with Grant Tavinor who builds on Walton's theory and argues:

> [T]he Big Daddies in *BioShock* are so threatening that the players must steel themselves before an encounter [...] This is because, fictionally, the player-character and the BigDaddy *do* "exist" in the same ontological game world (Tavinor 2009, p. 142).

Instead, I propose that BigDaddy can be frightening, because it threatens the player's goals when it (fictionally) threatens the player character.

Abstract games such as *Tetris* operate predominantly with basic emotions.[2] Next, I trace the emotional implications of different events and goal-status evaluations in Tetris using the above-presented emotion theory to demonstrate how emotions and gameplay are connected (refer to Table 4.1 for goal status evaluations and their relation to emotions). The structure of *Tetris* implies following an emotion sequences (an example is provided in Fig. 4.1). In the sequence, fear is experienced when a dropping tile threatens a goal and this fear implies increased arousal and vigilance that helps to maintain the control in the game. The fear is followed by happiness if the tile is places as planned or sadness if the action fails. The complex emotion worry is a combination of fear and anticipation of an uncertain threat (Power and Dalgleish 1997, p. 207), and can be experienced when reaching a sub-goal that requires certain kind of tile before it is too late. This worry can work as a warning sign that encourages the creation of a new and less risky sub-goal. This series is repeated until a final failure, which is subsequently evaluated either as success resulting in happiness or as failure resulting in sadness depending on whether a player's goal of playing was fulfilled or not, or alternatively as anger if the game is evaluated to be too hard.

In *Tetris,* the high score list has an important role in the final evaluation: it offers concrete grounds for the appraisal of one's performance in relation to the history of the playing performances. Naturally, the description above is not enough to catch the playing experience, but the description sketches the basis (that should be rather player independent) of the experience. The extended appraisal of the situation with current emotions can lead to complex emotions: for example, a player can feel pride when succeeding really well when evaluated in relation to the performances in the past.

[2] *Tetris* is a game in which differently shaped blocks fall until they hit the bottom. The player can rotate a falling block and move it sideways until it hits the bottom. If the blocks are placed on the bottom so, that there are no holes, the row(s) vanishes. The game ends if the pile of blocks reaches the top of the play area.

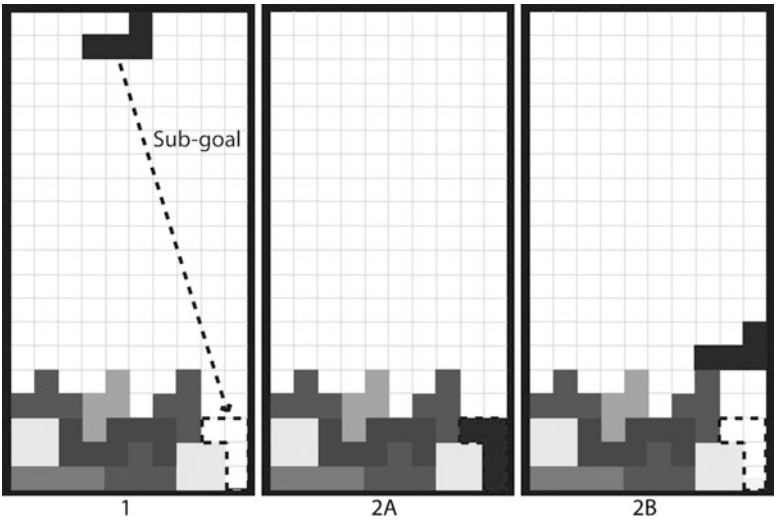


**Fig. 4.1** An example of a situation in *Tetris* (Pazhitnov 1985). The player's sub-goal is illustrated on the left hand side (1). When the goal is reached (2A), the player experiences happiness. If the goal fails (2B) the player experiences sadness; but if the failure is as the one presented in 2B, the player is likely to experience anger (or regret, which is an anger-based complex emotion) as the failure blocks the feasible goal(s) and makes the game harder

Conversely, disgust has a strong link to representations. Prompting the feeling of disgust is used in horror games. Carroll (1990) argues that the monsters and the peoples' reactions—such as nausea and revulsion—to the monster have a key role in the horror genre (pp. 13–42). Ekman and Lankoski (2009) propose that disgust and its relation to the contamination can be used to explain the horror experience in the computer games and especially in *Silent Hill 3* and *Fatal Frame* (pp. 181–182, 190–192).

Disgust requires that the players consider something as contaminating. In this, the horror games often trust the above-described mechanism that causes primary emotions, for instance, the idea of contamination via rotten food relates to disgust, whether the food is actual or fictional (see, Power and Dalgleish 1997, p. 347).[3] In addition to the threatening goals, the monster's role is to generate disgust. In *Silent Hill 3* monsters are filthy and decayed or are partly insects; insects and blood are typically associated with disgust. In addition to a digestion-related effect, the game presents a more abstract form of contamination. A non-player character says in the last part of the game that the monsters are human beings and Heather, the player character, is only sees them as monsters. With this, the game tries to induce guilt—guild is a disgust-based emotion (see, Power and Dalgleish 1997,

[3] Notably, Power and Dalgleish (1997) remarks that disgust is often confused with fear when a situation involved insects or reptiles (pp. 346–347).

pp. 355–358)—by psychologically contaminating[4] the action of killing monsters by proposing that the player is controlling an insane killer (c.f., Lankoski 2011).

When the player character goal's for the game are derived from the fictional goals of the player character, the player's emotions and player character's fictional emotions are correlated; the emotions are a result from the goal status evaluation, as discussed above, but the emotions while playing relates to the fictional emotions of the character because of goals are correlated. I consider this similar to empathy as discussed below, but as the goal status evaluations of the player's own goals are the source of emotions, it is vital to discuss this separately (c.f., Lankoski 2011).

*Thief 2: The Metal Age* (Looking Glass Studios 2000) belongs to games in which the goals are in the primary form to create an emotional connection between a player's emotions and the player character's fictional emotions. For example, a goal in the *Shipping… and Receiving* mission is to steal at least loot forth 850 gold. Guards during the mission put the goal of a player (and the fictional goal of the player character) in danger and thus their presence implies fear; finding loot relates to happiness, failure to steal the loot implies sadness; and guards blocking (making impossible) a goal suggest anger. There are also obvious disparities between the players' emotions and the fictional emotions of the character in the given situation: for example, the guards are a physical threat to the character but not to the player; outstandingly, the player's goal (to keep the character alive) and the fictional physical threat would both relate to fear.

I hope that I have demonstrated how the goal status evaluations of different game events influence the player's emotions. As seen, basic emotions can relate to rather abstract events and the presentation does not have significant impact on the appraisal. However, disgust is tightly connected with the presentation, and in some cases the same game object (enemy) would relate simply to fear, but the presentation can change the core emotion to disgust. Nonetheless, the goal status evaluations cannot explain—even the associative link of the direct access—why we find watching beautiful things pleasurable or how sounds and music elicit emotions. Next, I propose some answers to these questions.

## 4.3 Presentations and Emotions

First, I look at how the representation of the emotional expressions of game characters is linked to the emotions experience of emotions by the player. After that, I trace how beauty relates to happiness. Last, I study how sounds modulate and regulate the emotional experience.

[4] Psychological contamination can be something that is not digestive-based. Power and Dalghleish (Power and Dalgleish 1997, p. 345) refer to a questionnaire study in which people judged the idea of wearing Hitler's sweater being a one of the most disgusting options.

**Fig. 4.2** A captured child screaming for help and reaction of Jade, the player character in a cut-scene in *Beyond Good and Evil* (Ubisoft Montpellier Studios 2003)

### *4.3.1 Empathy*

Following Jean Decety and Philip Jackson (2004), *Empathy* is used to refer to mechanisms that correlate ones own affects and the emotions expressed by others (p. 71). Empathy can happen regardless of whether another is an actual person or character from a film or game, including characters such as Mickey Mouse or human-like animals in *Sly 3: Honor Among Thieves* (Sucker Punch Productions LLC 2005; Morrison and Ziemke 2005; Lankoski 2011; Pan and Slater 2007).

I have elsewhere argued that understanding game characters depends on the same processes as understanding other people: mimicry and empathy. *Mimicry* refers to involuntary automatic reactions to motor actions and emotional expression, such as mirroring the expression. This mirroring can range from small muscle activations to mirroring posture and facial expression. With the mirroring expression, emotions are also mirrored to some extent (Lankoski 2011). There are evidences that suggest this mapping happens at least with touch and pain and with the basic emotions of disgust, fear, happiness, and anger (Morrison and Ziemke 2005; Dimberg et al. 2000). Empathy includes also *character simulation*.[5] Character simulation is as-if reasoning where one tries to figure out what the other would do in a situation. Simulations, like other forms of as-if reasoning, can also trigger emotions via the appraisal of the goal status or direct access routes; Damasio links the as-if reasoning to secondary emotions (see Sect. 2.2 above).

Some games, for example, *Beyond Good and Evil* (Ubisoft Montpellier Studios 2003), seek to trigger empathic reactions with non-player characters and player characters (see Fig. 4.2).[6] Here the child's expressed fear is to motivate the player about the importance of saving the child. The player character's expression of anger is building motivation: the character is reacting to the situation and is getting ready

[5] It has been argued that the simulation is used when we try to predict and understand the other people in our daily encounters. The simulation is agued to have a role on understanding the behavior and emotions of o film, or literary characters (Currie 1995, pp. 235–237; Smith 1995, pp. 17–35).

[6] The example in the figure is from a cut-scene, but the characters also show emotional expressions in the playable scenes.

to act. Mirroring this expressed anger implies that the player's action readiness is likely to rise.

Taking control from the player may block the player's sub-goals thus causing frustration (see the Sect. 2.2 above). This happens in *Silent Hill 2* (Team Silent 2002) when the game takes control from a player and starts a cut-scene, in which the player character, James Sunderland, is locked in a room with monsters by a non-player character. This leads to a playable scene, in which the player is forced to defeat the monsters. When the first cut-scene appears for the first time, the event and following fight is a surprise and challenge, but if the players do not defeat the monster they are forced to trigger the cut-scene again. This forced replay can lead to frustration (especially if the players do not trust the non-player character in the first place). Here, I suspect that anger or frustration is not intended, and works against the playing experience. If the player grows too angry due to this goal blocking, they are likely to quit playing.

Empathy and judging character, however, requires that the player have a focus on the character. People can regulate their empathic reactions toward others by concentrating their focus on something else. Empathy can also be suppressed if the players are occupied with a cognitively demanding task (Eimer et al. 2003). However, if a given task requires focusing on the emotional expressions of the others, empathy is likely to occur, as it is needed in making a judgment of another person or character. This is exploited in *Diner Dash* (gameLab 2005), in which a player controls the waitress Flo. In the game, the player seat customers and guide Flo to taker orders, bill, and clean tables. If the customers, for example, need to wait too long they get angry and leave without paying their bill. Therefore, the player needs to monitor the expressions constantly in order to prioritize tasks and maximize income.[7] The expressed anger is likely to make the player feel bad about letting the characters wait while the aggressed happiness heightens the happiness of success. Emotions via empathy might clash with the player's desire to optimize the goal and scores, but this optimizing might create more tension in them because of the clash between empathic and goal-related emotions (Fig. 4.3).

### *4.3.2 Beauty*

Fear and disgust are associated with images representing something visually disgusting or fearsome, and this can be explained by the basic emotion theory, but that theory cannot, as pointed out above, explain why we experience happiness when perceiving beauty. Empirical evidence implies that people react with happiness to beautiful images (Reber et al. 2004; Paradiso et al. 1999).

[7] The players can also monitor the hearts, but I suspect that the facial expressions are easier.


**Fig. 4.3** In *Diner Dash* (gameLab 2005) the player need to monitor expressions and hearts (satisfaction meter) of the customers in order to prioritize the service

Reber, Schwarz, and Winkielman argue that the perceived beauty of the artifacts relates to the features of the artifact (in relation to psychological mechanisms) and the perceivers' past experiences:

1. Reber et al. points out that there are evidences that suggest that the judgment of beauty relates to the amount of information: simple (or even caricatures in some cases) are considered more beautiful than complex ones; more ambiguity, complexity, in cubist paintings are considered to influence negatively to the evaluation of beauty. Relating to this, symmetrical images or artifacts are found to be beautiful. Lastly, visual clarity contributes to the judgment of beauty.
2. Reber et al. maintain that repeated exposures to stimuli and learning of stimulus structures are know to result in evaluations that are more favorable. Also, prototypical forms are preferred over those that are non-prototypical (Reber et al. 2004).

Notably, according to Reber et al., if stimulus is irrelevant in relation to a current task and the task requires most of the attention, the perception is very likely ignored and consequently is not evaluated as beautiful (Reber et al. 2004). In order to enjoy the beauty of environment, games such as *Ico* (Sony Computer Entertainment 2002) or *Shadow of the Colossus* (Team ICO 2006), a player is given time to admire the beauty of landscapes before or in-between actions that demand focusing on the

decision-making or motor actions. The beauty of the environment in these games is likely to be a source of happiness, and players are likely to continue to explore the environment when they experience happiness also in the parts of the game that do not contribute to goal-related engagement. Typically, the beauty of the environment is not the only reason to keep playing, but there is also curiosity: what the players have not seen. However, the beauty and happiness relating to the beauty can be a motivating factor behind the curiosity.

Some aspects of beauty judgment of a person seem to be relating to the above-mentioned framework: physically symmetrical people are considered more beautiful than those who are non-symmetrical, and stereotypes of beautiful features explains some variation in features that are considered constituting what is beautiful.

Notably, according to Braun and Bryan, female waist-to-hip and male waist-to-shoulder ratios relate to the beauty judgment by the respective opposite sexes. Males prefer hourglass shaped females and females prefer V body shaped males (Braun and Bryan 2006). These beauty indicators are well exploited in games—as, for example, Jade in *Beyond Good & Evil* (Ubisoft Montpellier Studios 2003), Lara Croft in *Tomb Raider: The Angel of Darkness* (Ubisoft Entertainment 2003) and the prince in the *Prince of Persia: Sands of Time* (Ubisoft Montreal Studios 2003) show; especially symmetry is used.[8] In addition, baby-like features seem to be considered as beautiful (Isbister 2006, pp. 10–12, 232). This is utilized in, for example, *Super Monkey Ball Deluxe* (SEGA Corporation 2005), where the features of the exaggerated faces remind the key features of baby faces.

Beautiful characters are pleasurable to watch, and hence, characters can keeps the players engaged with the game, and they are likely to care about the fate of the character (continuing their goal, because of happiness associated with the characters).

### *4.3.3 Sounds*

Next, I consider how the sounds will influence the emotions of playing. I consider sounds in the perspective of emotion theory of music as the view will enlighten some effects of sounds that are not possible to handle via the above-mentioned goal related model. Just as with empathy and beauty, sounds and music works in conjunction with the other aspects of the game and modulate the emotional experience.

It has been demonstrated that music and sounds can influence the inferences on events, (Moffat and Kiegler 2006; Zehner and Lipscomb 2006; Molholm et al. 2002)

[8] Using symmetry might be due to economic factors, as the symmetrical characters are easier and faster to model: one can create only the left or right half of the model and let the software create the other half (by mirroring the created half).

but if music does not break expectations the music is not likely to be remembered separately (Ekman and Lankoski 2009, pp. 187–188). Moffat and Kiegler have presented a study where a game trailer of *Alan Wake* by Remededy is combined with different kinds of music (sad, angry, happy, and fear) and some impressions where collected by asking questions on whether informants agreed on statements. The informants who heard angry music agreed to the statement *Alan Wake has a gun in his pocket* significantly more than the informants who heard other type of music (Moffat and Kiegler 2006). Similar influence on the player's judgment on their affects has been reported with a play-sequence elsewhere (Zehner and Lipscomb 2006).

Sloboda and Juslin (2001) build a theory of emotions in relation to music from cognitive emotion theories that assumes that emotions involve the appraisal of an event. They argue that music can be appraised as an event and be a source of emotions in that way (pp. 90–91).

They argue Sloboda and Juslin argue that in music there are structural characteristics that relate to the emotions. They suggest:

> These characteristics include syncopations, enharmonic changes, melodic appoggiaturas, and other music-theoretic constructs, which have in common their intimate relationship to the creation, maintenance, confirmation, or disruption of musical expectations (Sloboda and Juslin 2001, p. 91).

Sloboda and Juslin (2001) propose that part of the emotions experienced relates to these features, that they call *intrinsic* (these features refer only to other musical events and structures). They also distinguish *extrinsic emotions* that can be further divided as iconic and associative. The *Iconic* relationship refers to that musical structure that has some kind of resemblance with an event or agent triggering emotions: for example, fast and loud music relates to emotions with high arousal. Iconic features are non-arbitrary, and they relate to specific musical structures. Finally, they recognize *associative emotions*[9] that are arbitrary and relate to the experiences of the person. Human memory seems to associate certain kinds of stimuli (for example, sound and smell) of an event with emotions that experienced during the event. It seems that music can trigger emotions that way (pp. 91–96).

In many games, the soundscape consists of traditional music, but for example in *Silent Hill 3,* the soundscape is an amalgam of melodies, ambient sounds, white noise, silence, pulsing squeaks, and even the dramatized sounds of footsteps. By combining different kinds of sounds with traditional melodies *Silent Hill 3* breaks musical expectations, which is a source of negative emotions such as fear and uneasiness the player may experience. The raised action readiness relating to the music maintains tension even when there is no imminent threat. This prolonged tension is released with happiness when the player successfully confronts the game monsters; this contrast to tension and happiness is likely to heighten the sense of happiness of the success.

[9] The associative emotions here are analogous to the association of emotion and event in *direct access* route, see Sect. 2.2 above.

In a game, the associative emotions that might be arbitrary in the beginning are not likely to stay as such: musical themes are linked to certain kinds of events–dangerous situations, battles and triumphs that have their own special theme. Thus, it is likely that the theme gets associated to a certain event and the emotions are more consistent than in general through the repetition. The danger melody uses intrinsic or iconic features that relate to fear. In addition, the connection between the theme and event is learned. For example, in *Dark Chronicle* (Level-5 Inc 2002) and *Silent Hill 3* the presence of a hostile non-player character is communicated with music, and the player can often hear the music before seeing the hostile character. Moreover, if the music does not relate to fear at first then it can be argued to be associated to that during the gameplay.[10] Forewarning and fear incline toward raised action readiness and enable the player to plan the encounter.

However, a theme might not get associated to an event only one way (e.g., as fear), but instead turn out to be the source of annoyance if the theme does not endure multiple repetitions, as is the case with the danger music of *Dark Chronicle*. Annoyance is an anger-based emotion (Power and Dalgleish 1997, p. 322) and in this case, arousal that should relate to fear is cognitively labeled as something else, namely annoyance. This annoyance might make the continuation of play less likely.

The sounds can be associated to a character, an event or place and conjure up impressions and affects (as described above). *Buffy the Vampire Slayer: Chaos Bleeds* (Eurocom 2003) is a game based on the television series *Buffy Vampire Slayer* (1997–2003). The game uses the television series theme to evoke the impressions and affects experienced when the player was following the television series.[11] The voice actors of the game characters are the same people who acted in the series, with the exception of the characters Buffy and Willow. The voices associate the game characters with the series strongly. This association is also likely to trigger emotions that the player has experienced when watching the series. When the player is a fan, these associations are like to increase an attachment to the game.

If cognitive load is low, the player has time to pay attention to the characters and environment and enjoy the beauty of it. However, it seems that music and sounds can shape the emotional experience despite high loads on visual perception, action and decision-making. However, unexpected sounds (or other signals) can direct attention as the human perception system is tuned to notice them (e.g., Reber et al. 2004). Despite that, the interpretation and emotion processing from music might still happen in high-spaced action situations; it seems that visual and sound processing happens, at least, partly in parallel fashion (see Molholm et al. 2002). Thus sounds in a game can have an important role in guiding emotions and attention.

[10] Here, for the sake of simplicity, I use music to refer also to the static noise used in *Silent Hill 3*, as it is a composed piece for that function. I wish not to go deeper into the question whether the use of white noise in the game constitutes music or not (but if John Gage's 4′33″ is accepted to be music, my shortcut is not a shortcut).

[11] Naturally, this applies only to those players who have been following the television series.

## 4.4 Conclusions

Why to study emotions? As I indicate in the Introduction, the cognitive theory of emotions and their relation to gameplay might be a key to understand aesthetic experience of games and games as fiction.

I have argued that we need multiple perspectives to understand gameplay emotion and the playing experience. However, I have not presented a complete theory of how emotions and gameplay are connected. Including more games in the study is likely to add features that should be taken into account in terms of the playing experience. An issue that I have not considered that is that why fear and disgust can engage us. Those emotions are typically associated with avoidance behavior, but my above analysis indicates that fear is present in many different games and disgust in horror games. Yet, it seems that these emotions seem to be crucial for an aesthetic experience.

In conclusion, I have described how, by analyzing the components of a game, (including all kinds of events containing emotional expressions), it is possible to perceive how the player's emotions and the gameplay are connected. Markedly, these connections are likely connections, but an emotion does not necessarily happen when the features are present, because, for example, attention and personal history influence how the situation is experienced. I have highlighted the role of goals and other structural features of the game system, characters, beauty and music in the emotional experience of gameplay, and show how they contribute to the experience. My main novel contribution in this essay is the detailed proposal on how these elements shape the player's emotional experience. Moreover, I have argued that emotions are integral to the playing experience.

## Bibliography

Björk, Staffan, and Jussi Holopainen. 2005. *Patterns in game design*. Hingham: Charles River Media.

Braun, Margaret F., and Angela Bryan. 2006. Female waist-to-hip and male waist-to-shoulder ratios as determinants of romantic partner desirability. *Journal of Social and Personal Relationships* 23: 805–819.

Carroll, Noël. 1990. *The philosophy of horror or paradoxes of the heart*. New York: Routledge.

Carroll, N. 2006. Aesthetic experience: A question of content. In *Contemporary debates in aesthetics and the philosophy of art*, ed. Matthew Kieran, 69–97. Malden: Blackwell Publishing.

Costikyan, Greg. 2002. I have no words & I must design: Toward a critical vocabulary for computer games. http://www.costik.com/nowords.html. Accessed 28 May 2010.

Currie, Gregory. 1995. *Image and mind: Film, philosophy, and cognitive science*. Cambridge: Cambridge University Press.

Damasio, Antonio. 2005. *Descartes' error: Emotion, reason, and the human brain*. New York: Penguin.

Decety, Jean, and Philip L. Jackson. 2004. The functional architecture of human empathy. *Behavioral and Cognitive Neuroscience Reviews* 3: 71–100.

Dimberg, Ulf, Monica Thunberg, and Kurt Elmehed. 2000. Unconscious facial reactions to emotional facial expressions. *Psychological Science*. doi:10.1111/1467-9280.00221.

Eimer, Martin, Amanda Holmes, and Francis P. McGlone. 2003. The role of spatial attention in the processing of facial expression: An ERP study of rapid brain responses to six basic emotions. *Cognitive, Affective, & Behavioral Neuroscience* 3: 97–110.

Ekman, P. 1999a. Basic emotions. In *Handbook of cognition and emotion*, ed. Tim Dalgleish and Mick Power, 45–60. Sussex: Wiley.

Ekman, P. 1999b. Facial expression. In *Handbook of cognition and emotion*, ed. Tim Dalgleish and Mick Power, 301–320. New York: Wiley.

Ekman, I. 2008. Psychologically motivated techniques for emotional sound in computer games. In *Proceedings of the Audio Mostly Conference*, 20–26. Audio Mostly archive. http://www.audiomostly.com/images/stories/proceeding08/proceedings_am08_low.pdf. Accessed 6 May 2010.

Ekman, I., and P. Lankoski. 2009. Hair-raising entertainment: Emotions, sound, and structure in silent hill 2 and fatal frame. In *Horror video games: Essays on the fusion of fear and play*, ed. Bernard Perron. Jefferson: McFarland.

Hjort, M., and S. Laver. 1997. Introduction. In *Emotion and the art*, ed. Mette Hjort and Sue Laver, 3–19. Oxford: Oxford University Press.

Isbister, Katherine. 2006. *Better game characters by design*. Amsterdam: Morgan Kaufmann.

Järvinen, Aki. 2008. *Games without frontiers: Theories and methods for game studies and design*. Tampere: Tampere University Press.

Juul, Jesper. 2005. *Half-real: Video games between real rules and fictional worlds*. Cambridge: The MIT Press.

Lamarque, P. 2004/1981. How can we fear and pity fictions? In *Aesthetics and the philosophy of art*, ed. Peter Lamarque and Stein H. Olsen, 328–336. Malden: Blackwell Publishing.

Lankoski, Petri. 2010. Character-driven game design: A design approach and its foundations in character engagement. Aalto University: Helsinki.

Lankoski, Petri. 2011. Player character engagement in computer games. *Games and Culture* 6: 291–311.

Moffat, David C., and Katharina Kiegler. 2006. Investigating the affects of music on emotions in games. In *Proceeding of Audio Mostly*. http://www.tii.se/sonic_prev/images/stories/amc06/amc_proceedings_low.pdf. Accessed 5 Feb 2008.

Molholm, Sophie, Walter Ritter, Micah M. Murray, Daniel C. Javitt, Charlers E. Schroeder, and John J. Foxe. 2002. Multisensory auditory–visual interactions during early sensory processing in humans: A high density electrical mapping study. *Cognitive Brain Research* 14: 115–128.

Morrison, India, and Tom Ziemke. 2005. Empathy with computer game characters: A cognitive neuroscience perspective. In: Proceedings of the Joint Symposium on Virtual Social Agents: AISB'05, 73–79. AISB, UK.

Nichols, Shaun. 2004. Imagining and believing: The promise of a single code. *The Journal of Aesthetics and Art Critisism* 62: 129–139.

Oatley, Keith. 1992. *Best laid schemes*. Cambridge: Cambridge University Press.

Pan, Xueni, and Mel Slater. 2007. A preliminary study of shy males interacting with a virtual character. In *Presence 2007: The 10th Annual International Workshop on Presence*. http://www.cs.ucl.ac.uk/staff/S.Pan/PanandSlater.pdf. Accessed 28 May 2010.

Paradiso, Sergio, Debra L. Johnson, Nancy C. Andreasen, Daniel S. O'Leary, G. Leonard Watkins, Laura L. Boles Ponto, and Richard D. Hitchwa. 1999. Cerebral blood flow changes associated with attribution of emotional valence to pleasant, unpleasant, and neutral visual stimuli in a PET study of normal subjects. *The American Journal of Psychiatry* 156: 1618–1629.

Perron, B. 2009. The survival horror: The extended body genre. In *Horror video games: Essays on the fusion of fear and play*, ed. Bernard Perron, 121–143. Jefferson: McFarland & Company.

Power, Mick, and Tim Dalgleish. 1997. *Cognition and emotion: From order to disorder*. Hove: Psychology Press Ltd.

Ravaja, Niklas, Timo Saari, Mikko Salminen, Jari Laarni, and Kari Kallinen. 2006. Phasic emotional reactions to video game events: A psychophysiological investigation. *Media Psychology* 8: 343–367.

Reber, Rolf, Norbert Schwarz, and Piotr Winkielman. 2004. Processing fluency and aesthetic pleasure: Is beauty in the perceiver's processing experience? *Personality and Social Psychology Review* 8: 364–382.
Salen, Katie, and Eric Zimmerman. 2004. *Rules of play: Game design fundamentals*. Cambridge: The MIT Press.
Sloboda, J.A., and P.N. Juslin. 2001. Psychological perspectives on music and emotion. In *Music and emotion: Theory and research*, ed. Patrik N. Juslin and John A. Sloboda, 71–104. Oxford: Oxford University Press.
Smith, Murray. 1995. *Engaging characters: Fiction, emotion, and the cinema*. New York: Oxford University Press.
Tavinor, Grant. 2009. *The art of videogames*. Chichester: Wiley-Blackwell.
Walton, Kendall. 1990. *Mimesis as make-believe: On foundations of the representational arts*. Cambridge: Harvard University Press.
Zehner, S.M., and S.D. Lipscomb. 2006. The role of music in video games. In *Playing video games: Motives, responses, and consequences*, ed. P. Vorderer and J. Bryant, 241–258. Mahwag: Lawrence Erlbaum Associates.

## Games

Eurocom. 2003. *Buffy the Vampire Slayer: Chaos Bleeds*.
gameLab. 2005. *Diner Dash*.
Ion Storm. 2002. *Deus Ex*. PS 2.
Ion Storm. 2005. *Thief Deadly Shadows*.
Level-5 Inc. 2002. *Dark Chronicle*.
Looking Glass Studios. 2000. *Thief II: The Metal Age*.
Maxis Software Inc. 1989. *SimCity*.
Pazhitnov, Alexey. 1985. *Tetris*.
Rockstar North. 2002. *Grand Theft Auto: Vice City*.
SEGA Corporation. 2005. *Super Monkey Ball Deluxe*.
Sony Computer Entertainment. 2002. *Ico*.
Sucker Punch Productions LLC. 2005. *Sly 3: Honor Among Thieves*.
Team ICO. 2006. *Shadow of the Colossus*.
Team Silent. 2002. *Silent Hill 2: Director's Cut*.
Team Silent. 2003. *Silent Hill 3*.
Ubisoft Entertainment. 2003. *Tomb Raider: The Angel of Darkness*.
Ubisoft Montpellier Studios. 2003. *Beyond Good & Evil*.

# Chapter 5
# Untangling *Gameplay*: An Account of Experience, Activity and Materiality Within Computer Game Play

**Olli Tapio Leino**

## 5.1 Introduction

*Gameplay* is a term often used in discussions about computer games as referring to, broadly speaking, that which happens when the player plays the game. In colloquial reference, which can be witnessed for example on any web forum devoted to the topic of computer games, gameplay is sometimes seen as a direct consequence of the rules of the game, but equally often it is understood in a somewhat more vague sense as the overall "feel" of the game. Qualities of gameplay seem to be inherited, to some extent, from the involved computer game, meaning for example that some games can have "better gameplay" than others. However, it is not hard to imagine an argument between two computer game aficionados concerning the qualities of gameplay in a particular game, leading to the conclusion that the game in question in fact has good gameplay, but not everyone is skilled enough to be able to experience it. Thus, looking at the colloquial uses of the term, we can assume that the phenomenon of gameplay involves qualities of the *player*, the *activity of play*, and the *game artefact*. In this chapter I seek to establish a footing for the concept beyond its colloquial use, behind which I assume, based simply on the popularity of the term, to be a discernable phenomenon.

Within the discourse of computer game studies several definitions of gameplay have been proposed but no consensus has been reached. Often the definitions attempt to reduce gameplay into interactivity or consequences of rules in the particular game. Salen and Zimmerman (2003, 303) (whose definition I will discuss in more detail later on) for example, define "game play" as the "the formalized interaction that occurs when players follow the rules of a game and experience its

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system through play." However, if we want to be faithful to the hybridity of gameplay suggested by the term's colloquial use, such reduction is unacceptable.

Quite an illustrating example of the irreducibility of gameplay to the rules is the observation of Frasca (2007, 174), that in the (non-computer) game *Twister*, "sexual performance is not required by rules. However, due to the gameplay, it is likely that a player will end up being 'too close' to another player body." Were we to describe *Twister* solely based on what we can learn from looking at the game's rules and/or its material existence, we would miss what some players might consider the key attraction of the game. However, we could not reduce it to the activity or attitude of play either – the game, as it exists in the world, cannot be ignored. If a particular *Twister* mat is slippery, the game of *Twister* as played (including the exchanges between and experiences of the players) is rather different from a game of *Twister* played with more traction.

While we can observe reductive undertones in the uses of the term gameplay within game studies, game design writing can be criticised of mystifying the term. Game designers Rollings and Adams (2003, 199) hint at a certain vagueness surrounding the term gameplay, as they remark that the term is "extremely difficult to define because there is no one single entity that we can point to" as an example of gameplay. When looking at how a game design writer Saltzman (1999, 16) compares "gameplay" to "the glitz and glitter poured into games these days", Juul (2005, 56), points out that Saltzman depicts gameplay as "the secret ingredient that makes (games) worth playing." Not unlike game designers who can design great gameplay without having to define it, empirical-scientific research on gameplay can proceed without much conceptual explication of the term. Within the discourse of empirical games research (e.g. Dekker and Champion 2007; Nacke and Lindley 2008), it appears to be feasible to consider gameplay as referring to the temporally and spatially delineated empirical phenomenon which comes into being in the experimental settings.

Since its inception, central tenet of computer game studies has been the acknowledgement that the playability of computer games, as referring to the necessity of the player's involvement in the constitution of the game as played, sets them apart from many traditional forms of media (e.g. Aarseth 2001). If we want to sustain computer game studies as an endeavour that acknowledges the unique aspects of computer games while seeking to shed light not only on computer games as designed artefacts but also on the ways in which they become intertwined with human experience and practice at the time of playing, it is necessary to arrive at an understanding of this amalgamation of subjectivity, process, and technology which is constituted when the computer game is played and which we have might approximate as "gameplay". Philosophically inclined conceptual analysis, such as the work in this chapter, cannot confirm, for example, whether gameplay 'exists' as a discernable empirical phenomenon but by focusing on the dynamics in the relationship between the parts constituting the whole it can dissolve some of the difficulty of defining gameplay and by doing so demystify the term without reducing it into any of its constituents. As a premise for the analysis in this chapter I assume that the difficulty in defining "gameplay" and the vagueness that it results

are indications of the ontological hybridity of the phenomenon the term attempts to refer to. This I intend as meaning that gameplay incorporates elements that belong to mental and physical domains – qualities of experience, activity, and materiality, to be more specific.

Initially considering gameplay as a composite of the terms *game* and *play*, I argue that in order to see significance in the notion of gameplay it is not necessary to dwell upon the subjective characteristics of that to which *play* refers – whether it is for example "source of joy and amusement" (Caillois 2001, 6), an "oasis of happiness" (Fink 1968), or a "disposition" implying readiness to improvise in an uncertain situation (Malaby 2009, 211). Instead, we can consider play as a "place-holder" for an *activity* and *attitude* to be filled empirically if necessary.

In her paper concerning with the role sound in gameplay, Jørgensen (2008) points out that

> gameplay is not a feature designed into the game alone, but an emergent aspect of interaction between the game system and the player's strategies and problem solving processes. In short, gameplay is how the game is played, delimited by the game rules, and defined by the dynamic relationship that comes into being when the player interacts with these rules

I agree with Jørgensen (2008) regarding gameplay being constituted in the relationship between the player and the game. However, it seems uncertain to which extent we can, in our descriptions of computer game play, apply terminology and descriptive devices specific to traditional games. In my attempt to untangle gameplay, it becomes necessary to demonstrate that the technological specificity of computer games compromises many of the descriptive devices – such as "rules", "winning" and "losing" – with which gameplay has been conceptualised previously but which originate in analyses of traditional or 'transmedial' (Juul 2003; Tavinor 2009, 21) games. Furthermore, drawing on Gadamer (2004), Wittgenstein (1973), Aarseth (2007), Juul (2003) and Kirkpatrick (2007), I argue that given the prominent role of materiality in shaping computer game play, a stringent application of the notion of "game" to describe computer game play does not seem sensible either, especially if the notion is understood as it has been established to describe traditional non-computer games.

From these premises and by drawing on post-phenomenological philosophy of technology (Ihde 1990; Verbeek 2008), I articulate the computer game as a *technological artefact* which makes players responsible, in an existentialist sense, for the freedom it endows them with. From this analysis gameplay appears as a self-sustaining activity in which at stake is the continuation of the activity itself. This risk is what distinguishes gameplay from freeform play. I describe how the game artefact not only makes the risk manifest in a material form but also regulates the qualities of play by shaping the intentionality of the player's experience. By unpacking the interrelations between the game as an immaterial structure, the material game artefact as a technology, and the activity and experience of play, this analysis helps untangle the hybridity hindering the use of the notion of gameplay. In this process, interesting questions considering the role of the computer game artefact arise. Is gameplay upon a computer game significantly different from the gameplay upon a stack of cards? How about a pinball machine?

## 5.2 *Game* and *Play* in the Concept of Gameplay: A Curious Coupling

In the following passages I shall interrogate the conceptual linkage between the notions of *game* and *play*. They are concepts which often make best sense when used together. Humans, especially children, often play without there being any pronounced game involved, but attempting to find out whether a previously unseen object unearthed at an archaeological excavation is a game or not requires one to find out whether it can be played. Reading contemporary game studies may lead one to think that play and game are not only interrelated but also interchangeable as concepts. This assumed affinity implies that we can use the qualities of one to explain the other, as for example Juul (2003, 31–32) has done in the literature review leading to his "Classical Game Model": in a table summarizing earlier definitions of a game, Huizinga's notions of *play* (Huizinga 1998) sit commensurately next to Crawford's opinion of what *a game* is (Crawford 1982). In the following I shall briefly consider certain methodological implications of assuming a conceptual affinity between game and play.

There are indeed cases in which it may be lucid and productive to assume game and play as almost synonymous. For example, if the 'system' of the game favours player two, player two will most likely be favoured when the game is played. For a multitude of purposes, to which I will return in a while, this "most likely" may be the highest necessary resolution and the sufficient level of detail. However, while a game may appear imbalanced to an 'objective' analysis, almost anything can happen when the game is actualised through play. Players who, apart from playing the game, are able to do other things with and to it, may cheat or spike each other's drinks. The allegedly advantageous position of player two may be embodied by an infant who can barely tell X from O on a PlayStation controller. Flaws, like overheating GPUs and network congestions may occur in the infrastructure facilitating play. A swarm of grasshoppers may appear, distracting the players.

While the notions of play and game are certainly inseparable in number of ways, and the difference between them may in some contexts be deemed trivial – so trivial that in some languages they are encompassed in the same word – the grounds on which we can describe details of the two from a scholarly point of view are decisively different. The grounds that may justify a statement about a game (e.g. the rules favour player two) are not enough to justify a similar statement about a playing of that game (e.g. player two gets favoured) and an assumption, based solely on an 'objective' analysis of the rules[1] of the game, that player two would be in fact favoured, would not be sustainable but imply an attitude of determinism.

[1] The argument can be extended to address any predictions on how a game will play out made based on the properties of the game's structure.

However, like I pointed out, there are cases where it makes pragmatic[2] sense to assume certain things about players and playing situations without making a fuss about the determinism implied. Computer game designers assume that the players will give the game a certain degree of attention and are capable of grasping the user interface and proceeding with logical thinking. Without assumptions like this it would be impossible to practice game design, but there seems to be a limit to what can be feasibly assumed. Like Smith (2007) suggested after his empirical studies of multi-player gaming situations, assuming that the players would want to *win* the game would not always be sustainable. For example, a game carefully adjusted for play geared towards winning would perhaps not yield interesting experiences to those who bring other kinds of desires into play.

While we can describe the design practice justifying the reduction of *play* as a human activity into a set of predictions and assumptions, there are equally sensible reasons for a similar degree of reduction concerning *games*, too. For example those conducting large-scale survey studies, can be, by way of their methodology, unable to account for details in individual game artefacts influencing the humans they study. This is suggested by Malliet (2007), who observes that "in most theories on the psychological or social effects of video games, only minimal attention is paid to the role of video game content as a moderating variable". As their focus is on psychological effects, the researchers in the effects tradition, according to Malliet (2007), often introduce game content into their equations by indirect means such as surveys, which reduce games even to a single property of being either "violent" or "non-violent".

As a premise for the further argumentation we may acknowledge that computer game play, as involving humans engaged (to a varying degree) in activities upon artefacts, is multifaceted and even best practices for studying this side can imply assumptions that lead to reduction on that side. There seems to be a curious coupling between games and playing, located somewhere between ontology and language, and for different purposes the terms of this coupling are best negotiated in different ways. While I will not attempt an exhaustive analysis of all their interrelations, in this chapter I strive to establish a notion of gameplay within which the two terms can coincide in peace.

[2] Calling this kind of attitude "pragmatic" seems fair given the "usual question" for pragmatism, outlined by James (1943, 133) as follows: "Grant an idea or belief to be true, [. . .] what concrete difference will its being true make in any one's actual life? [. . .] What, in short, is the truth's cash-value in experiential terms?" Regarding more specifically epistemology, Heylighen (1993), who sees pragmatism as a stage in the development of epistemology over the course of history, suggests that "according to pragmatic epistemology, knowledge consists of models that attempt to represent the environment in such a way as to maximally simplify problem-solving." A linkage between James (1943) and Heylighen (1993) can be drawn, so that James' 'cash-value' is the maximal simplification of problem-solving to which Heylighen (1993) refers.

## 5.3 Gameplay as an Activity and an Attitude

Now I shall discuss the notion of *play* in an attempt to establish a conceptual access to the phenomenon without reducing its subjective qualities into approximations.

Consider two individuals handling pieces of laminated cardboard. By observing that activity for a while, we can recognize that the subjects are actually playing. Perhaps we know the rules of *Uno* (1971) and see that the individuals are behaving according to the rules of that particular game. Or perhaps we haven't heard of *Uno*, not to mention seeing it being played, but our attention is caught by patterns we are familiar with from the context of play, like moving a whole stack of pieces of laminated cardboard aside when a certain kind of piece was placed on top, or asking "Is is it my turn or yours?". Based on paying attention to what the two individuals are doing, observing the events in sufficient detail, we can conclude that what they are doing is play. For this conclusion, it is not necessary to concern ourselves with what the players are thinking and feeling.

This is the kind of perspective to play[3] we can read also in Gadamer (2004, 105), whom we might consider as the first ludologist given his focus on 'games themselves' rather than on for example the players. Gadamer emphasized the "primacy of play over the consciousness of the players", meaning that play itself was more important than what goes on in the minds of those engaged in it. For him, the significance of play was to be found from play itself, which he characterised as a *to-and-fro movement*. From this perspective, "it makes no difference who or what performs this movement" (Gadamer 2004, 105) and thus the players can be kittens, rays of light, or individuals capable of cogitations. Even though Gadamer acknowledges that play needs its players through whom it can achieve its presentation, in order to understand play we do not necessarily have to understand the players, and vice versa, by understanding play we do not necessarily understand the players. Vikhagen (2004, 5) suggests that for Gadamer's notion of *Spiel*, "the player's role is secondary, or more like a catalyst, a way to instigate play's own purpose." For Gadamer, the meaning of play stands detached from the (conscious) behaviour and attitude of the players. Like Rodriguez (2006) puts it, instead of saying "X and Y are playing", Gadamer would say that "there is playing going on." From the Gadamerian perspective, play appears as an *activity* or a *process* distinguishable from the player's subjectivity.

Also Salen and Zimmerman (2003, 303–305), when, in *Rules of Play: Game Design Fundamentals*, attempting to define what play is, pick up the idea of play as an activity. They differentiate between "Game Play", "Ludic Activities" and "Being Playful". "Game Play" is the narrowest of their categories, the "formalized interaction that occurs when players follow the rules of a game and experience its system through play." "Ludic Activities", then, are play activities, which include

[3] Certain ambiguity is added by the fact that the German notion of *Spiel* used by Gadamer can be translated into English as both play and game.

not only games, "but all of the non-game behaviours we also think of as 'playing'," such as "a kitten batting a ball of yarn[. . .]" or kids throwing a frisbee. The third category of Salen and Zimmerman (2003, 303–305), "Being Playful" refers "also to the idea of being in a playful state of mind, where a spirit of play is injected into some other action."

This seemingly harmless model conceals a methodological hindrance. When looking at an activity unfolding, we can easily establish its status as "Game Play" by means of external observation. Assuming that it is play we are looking at and that we have an adequate sample, patterns will emerge which are enough to convince us that the interaction is "formal." This is not unlike the previous example about recognizing that individuals are playing *Uno* rather than playing around with pieces of laminated cardboard. Regarding the second category of Salen and Zimmerman (2003, 304), "Ludic Activities", again by observing we can see if the participants, for example the kids with the frisbee, are "testing the limits and boundaries" of the structures within which the activity unfolds and "finding ways of moving around and inside them." For example, we can observe that they apply a sophisticated curve in their throws in order not to hit an adjacent tree, not to mention the throws they make with eyes closed, from behind their backs, and so on. Recognising something that fits into either of the two categories, "Game Play" and "Ludic Activities", is perfectly possible based solely on observations from an external viewpoint.

The first two categories, into which phenomena can be classified based on external observation, can encompass playing carried out by all kinds of actors, including non-humans. The 'play' that is portrayed by the first two categories, appears epistemologically commensurate with Gadamer's *Spiel*, meaning that the definition does not rest on the properties of thinking and feeling (human) subjects. However, the third category, "Being Playful" warrants a shift of perspective as it requires us to consider what is going on in the subject's mind. Thus, in the model of Salen and Zimmerman (2003) two aspects of play that call for different approaches – the *activity* and the *attitude* – are confused as one. The separateness of the two has been already established since Caillois (2001, 43), who distinguished between the "purely formal qualities" and the "various psychological attitudes that govern play". Allow me to elaborate on the need for different approaches for the two aspects of play.

Regarding play as activity, the events which we can observe and grasp, like "a kitten batting a ball of yarn" (Salen and Zimmerman 2003), or asking "Is it my turn or yours?", or shuffling and dealing cards, *together (eventually) make up what the definition refers to*: the activity of playing (a specific game). For example, the *activity* of playing *Monopoly* (1935) consists of taking turns, throwing dice, moving tokens across the boards, exchanging play money for property, and so on. If we assumed a priori the activity's ontological status as playing, and attempted to arrive at its description, we could observe the activity for a while and provide an account of the playing of Monopoly that would consist of descriptions, abstractions and conclusions of what we observed: a game where the players move between properties, occasionally pick up cards, and so on, according to a particular logic.

If we were concerning ourselves with play as an *attitude* instead of as an activity, the relation between our direct observation and the phenomenon under scrutiny would be somewhat different. That which we could grasp by means of external observations – like the gleeful smile on the face of someone who managed to avoid a loss that seemed to have been determined already – would be just *symptoms of the attitude*, not anything making up what the term refers to, that is, play as an attitude (e.g. feelings of amusement, happiness, a particular relation to the one's spatiotemporal existence, etc.). This demonstrates that the notion of play could also be seen as attempting to describe an inherently *subjective* phenomenon, meaning that when giving an account of *playing* we would be describing a state of a living subjectivity – the plans, motives and desires entertained by an individual at the given time.

Malaby (2007, 96), too, is aware of a distinction between play as a "form of activity" and "a mode of experience". Drawing on Stevens (1980) and Malaby (2007, 100) argues that one cannot sit on two chairs simultaneously:

> if we are using the notion of play to signal a state or mode of human experience [. . .] we cannot simultaneously use it reliably as a label for a kind or form of distinct human activity. (Something that allows us to differentiate between activities that "are play" and those that "are not").

Malaby (2009, 211) proposes a play as a *disposition* that "makes the actor an agent within social processes" and implies the actor's willingness to improvise in an uncertain situation. I agree with Malaby (2009) that it is sensible to see play as a disposition, as a particular kind of stance toward the world. However, I would insist emphasizing that the disposition is private: perhaps *my* attitude of play bears no resemblance to *your* attitude of play, even though their symptoms could be described as similar. In this light, any definition of *play* which seeks to address the subjective qualities of the phenomenon while simultaneously claiming intersubjective plausibility appears as an approximation to which we have perhaps arrived by means of synthesizing empirical evidence about the contexts and alleged symptoms of particular kinds of dispositions.[4]

If we considered play as an activity (as in the second option in Malaby (2007, 100)), individuated to the extent that we can distinguish it from other activities and further differentiate one kind of play from other kinds of play, we would be already closing in on the significance to be found in the applications of the notion of *game*. Gadamer (2004, 110) suggests that the playing of a game is a way for "an activity to become a work" and thus gain independence from the subjects engaged in it. He refers to this as "transformation into structure." Due to the transformation we can have a particular 'individuated kind of play' which allows us to ask "Do you remember when we played hop-scotch?" instead of asking "Do you remember when played so that we drew the figure on the asphalt and [. . .]?", and, which we do not hesitate to call a 'game'.

[4] Even though play escapes *definition*, it is possible to *describe* its intricacies. Elsewhere (Leino 2009) I have suggested that a non-approximative description of the intricacies of play is possible from a first-person perspective, in other words, the player's perspective.

Undeniably also the activity of computer game play can be described as having a "structure" in the Gadamerian sense; playing *Half-Life 2* implies losing oneself (cf. Gadamer 2004, 103) 'into the game' not unlike playing *Hop-scotch* does. However, in comparison to non-digital games, many of which can be facilitated by any "found" materials, the technological materiality of computer games seems to have a more prominent role. I will return to this shortly, but allow me first make a brief speculative remark concerning the role of *play* in the notion of gameplay.

Perhaps, in our quest to understand the notion of gameplay, we should acknowledge the impossibility of arriving at a simultaneously exhaustive and inter-subjectively plausible description of play. Rather than trying to make do with approximations about subjective intricacies of play, we could perhaps stop at what we can observe without problems: that depending on the perspective from which we look at it, play appears as an *activity* or an *attitude*. This would be to consider play as a "placeholder" within the notion of gameplay, to be filled empirically on a case-by-case basis in all the individual instances of the term's application.

## 5.4 From Metaphor to Materiality

I pointed out earlier that we can describe structures according to which turns of events unfold and to which players have to adjust their behaviour in both digital and non-digital games. However, seeing the ways in which computer game play is structured as on par with the ways in which non-digital game play is structured, would be to overlook the influence of (technological) materiality in the structuring. In other words, a Gadamerian "structural" account of computer game play must be complemented insights on how the technology makes the structure manifest in a material form. Allow me to illustrate this with an example of *Qualat*, a game in the family of games known as *Mancala*.

A fundamental mechanic in *Mancala* games is the picking-up a handful of little stones from one of the several pits on the board and 'sowing' them into subsequent pits. These games were, and perhaps still are, played by herdsmen using goat droppings in place of stones (called *til* when used as playware for *Qualat*) and hand-dug holes in the dry ground as pits (Pankhurst 1971). In his chapter in the *The Study of Games* (Avedon and Sutton-Smith 1971), Culin (1971, 94) offers an account of *Mancala*, and suggests of its material dimension that it uses a "board with cup-shaped depressions and a handful or so of pebbles or shells." Culin (1971, 95) also recollects hearing that

> Children frequently play the game in holes made in the ground when they have no board, a device also resorted to by travelers who meet by the way.

Of all the differences between materialities of goat droppings and computer games the most important to our analysis here is that the latter not only has the ability to transform as a consequence of its player's choices, but is also expected to

do so. If a dry goat dropping gets crushed in the hands of a herdsman, it is an unfortunate accident comparable to a power failure when playing *Tetris* (1985) in that in both cases the materiality prevents the game from continuing. The "found materiality" used in a game of *Qualat* does not have the ability to transform itself in relation to the turns of the events unfolding according to the game's structure. The material game artefact of *Tetris*, on the other hand, will transform itself to the extent that it prevents the game from continuing if the blocks touch the top of the container. This is always the case, it is hard-coded in the binary executable file whose run-time behavior corresponds to what we know about how the game of *Tetris* plays out.

The prominence of materiality as structuring computer game play has certain ramifications to our attempts of untangling the hybridity within the notion of gameplay. Namely it renders some of the presuppositions which in the context of games like *Qualat* would be perfectly justified as questionable if not unexamined. Allow me to elaborate on this claim in reference to Aarseth (2007, 130), who paraphrases how Gadamer (2004, 106) understood players as subordinate to the structure of the game ("Whoever 'tries' is in fact the one who is tried."):

> By accepting to play, the player subjects herself to the rules and structures of the game and this defines the player: a person subjected to a rule-based system; no longer a complete, free subject with the power to decide what to do next.

I am sympathetic to Aarseth's reading of the player's freedom being altered at the moment of beginning to play. For example, I cannot play a game of solitaire with a traditional stack of cards without *knowingly* subjecting myself to the rules of the game and *agreeing* not to be distracted by any extra-ludic temptations I may face. Without the conscious decision of doing so, which involves knowing the rules of the game and being capable of the necessary behaviours, the stack of cards remains yet another feature in the contingency of the world. However, the nature of the event of 'subjecting oneself to the rules' of the game becomes somewhat ambiguous if we consider it in the context of single-player computer games. Juul (2003, 43), writing about the relation between traditional games and computer games, observes that:

> while computer games are just as rule-based as other games, they modify the classic game model in that it is now the computer that upholds the rules. This adds a lot of flexibility to computer games, allowing for much more complex rules; it frees the player(s) from having to enforce the rules, and it allows for games where the player does not know the rules from the outset.

Thus, we can play computer games by trial and error – metaphorically speaking by banging our heads against the wall until a hole appears where previously was a wall. In some cases this qualifies also as a literal description: for example, while in *Wolfenstein 3D* many of the doors to secret rooms containing treasures and weapons are hidden behind rugs hanging on the wall, there does not seem to be any general rule by understanding which the player could fathom out the locations of hidden doors, e.g. that underneath all rugs with a particular kind of image, or underneath all rugs with a particular kind of image situated next to a chandelier,

there would always be a door. Thus, a viable method of finding hidden doors is to hold down the key used to open doors while moving the camera/weapon perspective (the FPS avatar) along the walls in a 45 degrees' angle.

The concept, or a metaphor, of *game* has complex descriptive abilities. When we apply it on the phenomena we have come to know as single-player computer games we get as if for granted the whole system of categories with which to describe the properties of the phenomenon under study. We can name the person in front of the computer as "the player" and the patterns we may observe in the run-time behaviour of the computer system as "rules", for example. However, thanks to the materiality enforcing the structure of the game, with patience and perseverance the player can to a large extent compensate for and perhaps even substitute the lack of prior knowledge of the game's genre or rules. Like Consalvo (2007, 85) observes, "the game embodies the rules, *is* the rules, that the player must confront." However, it is perfectly possible that through the procedure of trial and error, the player never achieves an understanding of any regularities in the behaviour of the game artefact to justify the term 'rules'. The ontological status of 'rules' is ambiguous especially in the context of complex computer games whose 'systems of rules' we would have hard time describing exhaustively. In single-player computer game play, it requires benevolent interpretation to 'see' rules in the behaviour of a computer executing code. This is unlike traditional games, in which the enforcing of the "structure" is the player's task, and knowing the rules is a *sine qua non* for the activity. In this light, it does not seem unjustified call for revisiting the ways of applying the game metaphor for the description of single-player computer games.

Kirkpatrick (2007, 75) suggests that an analysis of a computer game must take play as its starting point, but points out that it would be wrong "to pursue the prioritization properly afforded to play exclusively in the direction of an analogy with traditional games." Further emphasizing the disparity between computer games and all games, he suggests that "what is distinctive to the computer game form can only be partially understood by examining its game character." However, if we assume that there indeed is significance vested in the colloquial usage of the notion of gameplay and our task here is to understand it, perhaps we should be less stringent. Wittgenstein (1973, §66–71) suggested that a search for that which is in common between all the games we know, ranging from board-games and card-games to children's games and olympic games, will never arrive at a core gameness but has to content itself on the level of "a complicated network of similarities overlapping and criss-crossing: sometimes overall similarities". Wittgenstein (1973, §67) calls this *family resemblance*. Wittgenstein (1973, §66) suggests that to give someone an account of what a game is, we could

> describe *games* to him, and we might add to the description: "This *and similar things* are called 'games'."

Thus, instead of concentrating on the similarities that are *not* there, our effort of establishing the notion of gameplay in the context of computer games beyond its colloquial use should perhaps focus on that which the activity of playing a game and the activity of playing a computer game have in common.

## 5.5 Computer Game as a Technological Artefact

Previously I have suggested that in order to grasp the ways in which the materiality of the computer game artefact shapes the phenomenon of gameplay, we need to move beyond the traditional game metaphor. In the following passages I shall attempt a more detailed account of the kinds of shaping that are taking place, seeking to grasp the hybrid nature of the phenomenon. I begin by establishing the materiality involved in gameplay through the concept of a *technological artefact* (cf. Ihde 1995) and proceed to describe how the game artefact shapes play in terms of both *activity* and *attitude*. In this analysis, *risk* (cf. Gadamer 2004, 160) appears the ancestral trait linking computer game artefacts to the family of games and the game artefact as making the risk manifest in a material form. Through an example of *flashbang grenades*, a common feature in many FPS games, I illustrate how the experience of play can be described as being co-shaped in terms of its both form and content in the symbiotic relationship between the player and the material game artefact.

Seemingly the simplest possible way to arrive at a notion of computer game play that takes into account the materiality would be to assume the involvement of an object we decide is a computer game as a definitive feature in the play activity we then decide to call computer game play. But even if we decided we could live with the implied assumption of there being a category of things called "computer games", our analysis would be compromised by the ambiguity of the artefacts we may call computer games. All objects can be used for a multitude of purposes: bottles can be opened with mobile phones, computer games can be used as vehicles for self-expression in the form of *machinima*. Also, if the involvement of "a computer game" was our only criterion, we would miss out on the nuances within the play activities involving computer game artefacts and could not distinguish between *playing a game* and playing *with* a game. This ambiguity can be approached from the point of view of Ihde's *technological artefacts*. Ihde (1990, 68), a post-phenomenologist and a philosopher of technology, observes, leading to his notion of a technological artefact, that animals make occasional use of objects they find in nature, such as thorns and sticks. Even though humans do the same, for humans these objects do not remain as thorns and sticks, but turn into spears and tools. In this process, Ihde sees them being shaped and manufactured "into technological artifacts". Ihde (1990, 68) defines a technological artefact as something which "becomes what it 'is' through its uses". Ihde (1990, 70), discussing the problem of defining and describing technological artefacts, continues that:

> If the ambiguity of the object is one side of the problem, then the other side is that virtually any object may become a technology – at least, if it can be brought into the range of human praxis.

An interesting question concerning with the relation between technological materiality and *playful* human praxis is whether we can describe features countering the ambiguity – whether some objects more than others are suitable for the purposes of 'being played'. Allow me to approach this question by drawing on

Gadamer (2004, 106), who refers to play/games as "risks" for the player: the player "enjoys a freedom of decision which at the same time is endangered and irrevocably limited." He continues that

> even in the case of games in which one tries to perform tasks that one has set oneself, there is a risk that they will not 'work', 'succeed', or 'succeed again', which is the attraction of the game.

Could we find material correlates for "success" and "failure" in the context of computer game play? We already observed that the descriptive devices with which we can describe traditional games are not necessarily applicable for describing computer game play. As a computer game can be played without knowledge about "rules" and "goals", we cannot attach our definitions of success and failure to such concepts. We cannot take winning and losing as the yardstick either, because not all computer games can be won and not all players desire to win. However, we can safely assume of the player that she *desires to play*, because otherwise we would know her by some other label.

Allow me to try to describe how "success" and "failure" appear from the perspective of someone who desires to play. Some of my choices as a player of a game will allow me to do other (perhaps new) kinds of things in the game. As a consequence, whether direct or indirect, of some other choices of mine, however, continuing playing the game might be rendered as an impossibility. We can observe that while playing takes place, the computer evaluates, in relation to a pre-defined criteria, the choices the player has made and decides on opening-up or delimiting the player's possibilities to choose. Depending on the design of the particular game, some choices may allow the player to do previously impossible things, while other choices may lead to an abrupt ending of the situation, cause the player to become a non-player even if she was not aware of the existence of the criteria against which her actions were evaluated. At the overlap of the game artefact's resistance[5] toward the player's actions, and the player's willingness to confront the resistance in her attempt to remain a player, there is room for us to operate with the concepts of *failure* and *success*.

When the scope encompasses the player who desires to play, the ambiguity that puzzled us in the notions of *success* and *failure* vanishes. The notion of failure refers to a choice with consequences that delimit the player's degree of freedom in the game and thus most likely decrease the long-term chances of the player remaining a player of the game. Given her desire to play, the player would deem her inability to remain a player a failure. Correspondingly, success refers to a choice which, while not necessarily opening up any new possibilities to choose, does not contribute to delimiting the degree of freedom either. Thus, a successful choice is

[5] I intend the notion of "resistance" as used by Sartre (2003, 505) as signifying the quality of a world which makes an individual's freedom meaningful. In other words, "resistance" refers to that without which there would be no difference between 'wishing to' and 'choosing to' do something.

what ensures that the player remains as a player at least until a new choice is to be evaluated, in other words a choice that makes it possible that the activity continues to sustain itself. A successful player is someone who is able to decide whether she should continue playing. An unsuccessful player is someone who is unable to retain the freedom for this decision, and finds out that such a decision was made on her behalf by the materiality of the game artefact. In other words, surviving the resistance put forward by the game is already an accomplishment. With these notions we are equipped to account for successes and failures also in computer game play which cannot necessarily be described with the terminology of traditional games.

Given that I desire to play, the materiality of the game artefact imposes on me a freedom of choice of which I am responsible in my choices. Elsewhere I have (Leino 2009) referred to this as the *gameplay condition* and suggested that the player's choices, actions, and achievements inherit their meanings from the gameplay condition: clearing several successive uni-coloured lines in *Tetris* is, while relatively meaningless in relation to the assumed goal of the game, an achievement in relation to the gameplay condition in *Tetris*. (This is not unlike we experience aspects of our life meaningful in relation to the human condition.) The intricacies of the gameplay condition in the relationship between a player and a particular game are intricacies of the ways in which the game artefact shapes the activity of play.

Thus, rather than subjecting herself consciously to the rules of the game, as Aarseth (2007, 130) suggests the player does when beginning to play, the player appears as *being subjected to the gameplay condition*. Endowing their users with a degree of freedom while simultaneously making them responsible for this very freedom is what differentiates *game artefacts* from other technological artefacts. Game artefacts, thus, are technological artefacts which impose the gameplay condition on their users.[6] Interestingly, we can see that the notion of a game artefact is not exclusive to digital games, as a pinball machine imposes a gameplay condition on its users as well. A stack of cards or the "found" objects we may use to play *Qualat* do not have the material means to do so, thus we can only play *with* them.

[6] Without further explication I intend the notion as referring to whole packages of technology in which structures of games are manifested. Such reference may initially seem reductive. For example, the "game artefact" involved in gameplay of the original instalment of the *Tetris* franchise is admittedly different from the game artefact involved in the gameplay of *Far Cry*. Acknowledging that technological artefacts are created in their contexts of use, we cannot ignore the competencies of individual users and the psycho-social contexts around the use of game artefacts. Using one single concept in reference to all this may seem to reduce the diversity of vastly different configurations, or "assemblages" (cf. Taylor 2009), of materialities and practices into one. However, it is important to remark that the notion is not an exhaustive description of any single empirical artefact or a constellation of artefacts and practices. I make no reference to a 'prototypical game artefact', for example. All 'game artefacts' are, assumedly, 'more than' game artefacts.

## 5.6 Co-Shaped Intentionality in Gameplay

So far we have observed that the game artefact shapes the gameplay activity by making the *risk* (cf. Gadamer 2004, 160) involved in gameplay materially manifest. However, game artefacts can shape also the subjective aspects of gameplay, which we might approximate as the *attitude* of play in contrast to the *activity*. Remembering that we established play as a "placeholder", it is obvious that there is a limit to the degree of detail we can achieve through a non-empirical analysis. However, from our current perspective, we can say a few words about the *ways* in which this shaping takes place.

To facilitate this, I will briefly introduce some of the terminology employed by Ihde (1990, 72–80) in an explanatory project he calls "a phenomenology of technics", through which he seeks to explain how technologies contribute to human experience of the world. Ihde describes technologies like eyeglasses and telephones as "embodied technics" that situate in-between the human and the world and become transparent in their "position of mediation". Some technologies, like a thermometer behind a window, invite us into "hermeneutic relations", meaning that they present the world to us only if we engage them in a process that resembles reading. In addition to these "hermeneutic" and "embodied technics" there are also technologies which, like Verbeek (2008, 389) puts it, are the terminus of the experience. These are the technologies with which we enter into alterity relations, which Ihde (2003, 528) describes as "relations in which the technology becomes quasi-other, or technology 'as' other *to* which I relate."[7]

While there would be a lot more to say about how computer games in general situate in human-technology relations, and how these relations gradually develop over time perhaps as factors of skill and habituation,[8] I will discuss the example of *flashbang grenades* to illustrate that an account of the phenomenon of gameplay is not possible without embracing its ontological hybridity. Flashbang grenades are a common feature in first-person shooter games. They are weapons which inflict only marginal damage on avatars, but work in a somewhat more indirect manner. I take my example from *Far Cry* (2004), in which as a consequence of a flashbang grenade explosion near the player's avatar, the image on the screen is replaced with a semi-transparent snapshot of the moment the grenade exploded. As time goes by, the transparency of the snapshot increases until it has completely faded away. If we describe the consequences of the flashbang grenade explosion merely as change in the picture presented on the screen, we miss the whole point about the event's significance within gameplay. Instead, 'I became blind for a while' is a more fitting description. This description seems initially problematic because

[7] Ihde (2003) describes also a fourth kind of human-technology relations: "background relations", referring to the ways in which technologies with which we are not explicitly in relations shape our experience of the world.

[8] For a discussion on this topic see e.g. Nielsen (2010).

throughout the episode I could perfectly see for example my left hand on the keyboard and the right moving the mouse. It is indeed problematic, but only if we take *I* as in isolation from *Far Cry*. If we want to attain a description which resonates with the first-hand experience of gameplay, that is, to describe the *I* as someone whose sensory capabilities were temporarily damaged by the flashbang grenade, we need to consider subjectivity being co-shaped by both the human and the material game artefact. This implies going beyond the paradigm of *mediated* intentionality.

Following Verbeek (2008, 391), we may observe Ihde's range of human-technology relationships as a spectrum on which technologies range, based on their distance from the human, "from being 'embodied' to being 'read,' to being 'interacted with' and even being merely 'background'." However, Verbeek (2008, 391) also suggests that "prior to the embodiment relation there are human-technology relations in which the human and the technological actually merge rather than 'merely' being embodied." This is what he calls *hybrid intentionality*. Despite Verbeek's insistence of "physical alteration", we can meaningfully describe the player-game relationship, however somewhat mundane compared to body modifications, as hybrid intentionality. The flashbang grenades exemplify the observation of Verbeek (2005, 130), that "mediation does not simply take place *between* a subject and an object, but rather *co-shapes* subjectivity and objectivity." In this line of description, the gradually fading afterimage hampering my vision after a flashbang grenade explosion in *Far Cry* is a result of my experience being co-shaped by the *Far Cry* game artefact. As such it is different from, for example, the way how my ears ring after failing to steer clear from a flashbang grenade explosion in *Call of Duty 4* (2007). However, what unites these two examples is that in both cases the modalities of intentionality are subordinated to the structure of the game enforced by the game artefact.

While we can observe that different game artefacts co-shape the intentionalities of their players in different ways, it is impossible to atomize phenomenon of gameplay to separate the influences of the player and *Far Cry* in the player-game relationship like I can separate the influences of myself and my eyeglasses by simply taking them off and seeing what the world looks like without them. In other words, there is no 'bare way of seeing' into *Far Cry* to which I could revert at will,[9] any more than there is any 'bare *Far Cry*' I could perceive through a mode of

[9] If we want to consider enhanced ways of seeing into *Far Cry* in relation to the phenomenology of technics, we could perhaps take what is often referred to as 'user interface' elements as "embodied technics" (Ihde 1990, 72–80). These features can often be turned on and off at will, or, are turned on and off as a consequence of turns of events, thus resembling more the paradigmatic cases of embodied technics such as eyeglasses. However, this would require a degree of benevolence since the notion of "interface" is contested: it would be hard to pinpoint where the "interface" would stop and *Far Cry* begin.

observation of my own free choice.[10] If we seek to describe gameplay without reduction or approximation, it is essential that we pay attention not only to the structure enforced on the activity of play by the game artefact, but also to the ways in which the material game artefact regulates the constitution of both *that which is experienced* and the *ways of experiencing*.

## 5.7 Conclusive Remarks

In light of the argument presented here, it seems that underneath the colloquial use of the notion of "gameplay" we can indeed describe a phenomenon encompassing experiential, processual and material qualities. The 'hybridity' of gameplay does not refer to a mere simultaneous occurrence of material, processual, and experiential qualities, but to an inextricable intertwinement of qualities across ontological domains. For example, to consider flashbang grenade explosion as a feature in the gameplay of *Far Cry* requires making reference to 'becoming blind'. This particular way of experiencing, in turn, lends its significance from the game's structure which dictates that the ability to perceive one's surroundings is required from those desiring to play. Furthermore, this structure is made tangible by the game artefact, whose material existence always escapes the attempts of grasping it completely. This kind of intertwinement, experienced by the player as a significant unitary phenomenon in the immediacy of the playing situation, perhaps, constitutes the 'feel of the game' often mentioned around colloquial applications of the term 'gameplay'. Thus, the inability of Rollings and Adams (2003, 199) to point at "a single entity" as an example of gameplay is understandable.

We can observe that if we refrain from reducing gameplay into for example its material constituents, a general non-empirical analysis is confined to operate with quite a few placeholder concepts, hampering its pursuit of detail. However, this can be also considered as a confirmation of the assumption that there is no 'gameplay in general' underneath the meta-level description of an activity which seeks solely to sustain itself and ensure its further fruition, as the qualities of a particular instance of gameplay depend on the qualities of both the player and the game artefact. Thus, the colloquial reference to 'good gameplay' in a particular game as a quality independent of individual players appears as describing the demands of the game artefact, and its meaningful application requires making assumptions about an 'average' player to fill in the blanks. For some purposes, we might consider

[10] This claim applies only as long as we are considering the game from the player's perspective. From a non-player's perspective there is no ambiguity in the ontological status of the "bare *Far Cry*" as a constellation of computer code. As such it can be observed independent from its symbiotic relation with the player by for example using debugging tools, network traffic analysers, and the like.

inheriting these assumptions from stereotypes of different kinds of players (e.g. Bartle 1996). Assumedly, it would be easier to arrive at a consensus about a game having good gameplay *to*, for example, "explorers", than it is to judge whether a game simply has good gameplay.

Whereas the traditional game metaphor seems to work best with "transmedial games" (e.g. Juul 2003, 40; Tavinor 2009, 21) which can be played on almost any found materials, including a computer, I suggested that for the analysis of computer game play as a specific kind of play it could be useful to complement the description with attention to the ways in which materiality is involved in computer game play. With the brief analysis of the symbiotic relationship between the game artefact and the player I have demonstrated how the game artefact and the player co-shape both that which is experienced and the ways of experiencing, supporting the description of gameplay as an ontological hybrid.

## References

Aarseth, Espen. 2001. Computer game studies, year one. *Game Studies* 1(1). http://www.gamestudies.org/0101/editorial.html

Aarseth, Espen. 2007. I fought the law: Transgressive play and the implied player. In Situated Play. Proceedings of DiGRA 2007 Conference, Tokyo.

Avedon, Elliott M., and Brian Sutton-Smith, eds. 1971. *The study of games*. London/New York/Sydney/Toronto: Wiley.

Bartle, Richard. 1996. Hearts, clubs, diamonds, spades: Players who suit MUDs. *Journal of MUD Research* 1(1). http://www.mud.co.uk/richard/hcds.htm

Caillois, Roger. 2001. *Man, play and games*. Urbana/Chicago: University of Illinois Press.

Consalvo, Mia. 2007. *Cheating. Gaining advantage in videogames*. Cambridge, MA: MIT.

Crawford, Chris. 1982. The art of computer game design. http://www.vancouver.wsu.edu/fac/peabody/game-book/Coverpage.htm.

CryTek. 2004. *Far cry*. Paris: Ubisoft. PC game.

Culin, Stewart. 1971. Mancala, the national game of Africa. In *The study of games*, ed. Elliott M. Avedon and Brian Sutton-Smith, 94–102. New York/London/Sydney/Toronto: Wiley.

Darrow, Charles B. 1935. *Monopoly*. Parker Brothers. Salem, MA: Board game.

Dekker, Andrew and Erik Champion. 2007. Please biofeed the zombies: Enhancing the gameplay and display of a horror game using biofeedback. In Situated Play. Proceedings of DiGRA 2007 Conference, 550–8, Tokyo.

Fink, Eugen. 1968. The oasis of happiness: Toward an ontology of play. *Yale French Studies* 41: 19–30.

Frasca, Gonzalo. 2007. Play the message: Play, game and videogame rhetoric. Ph.D. thesis, IT University of Copenhagen.

Gadamer, Hans-Georg. 2004. *Truth and method*. 2nd ed. London/New York: Continuum Impacts.

Heylighen, F. 1993. Epistemology. In *Principia cybernetica web*, ed. F. Heylighen, C. Joslyn and V. Turchin. Brussels: Principia Cybernetica. http://pespmc1.vub.ac.be/EPISTEMI.Html.

Huizinga, Johan. 1998. *Homo ludens: A study of the play-element in culture*. London: Taylor and Francis.

Ihde, Don. 1990. *Technology and the lifeworld: From garden to earth*. Bloomington: Indiana University Press.

Ihde, Don. 1995. *Postphenomenology: Essays in the postmodern context*. Chicago: Northwestern University Press.

Ihde, Don. 2003. A phenomenology of technics. In *Philosophy of technology. The technological condition. An anthology*, ed. Robert C. Scharff and Val Dusek, 507–529. New Jersey: Blackwell.
Infinity Ward. 2007. *Call of Duty 4: Modern Warfare*. Santa Monica: Activision. PC game.
James, William. 1943. *Pragmatism and four essays from the meaning of truth*. Cleveland/New York: Meridian Books. The World Publishing Company.
Jørgensen, Kristine. 2008. Audio and gameplay: An analysis of PvP battlegrounds in world of warcraft. *Game Studies* 8(2). http://gamestudies.org/0802/articles/jorgensen.
Juul, Jesper. 2003. The game, the player, the world: Looking for a heart of gameness. In *Level up. digital games research conference*, ed. Joost Raessens and Marinka Copier, 30–45. Utrecht: DiGRA and Utrecht University.
Juul, Jesper. 2005. *Half-real. video games between real rules and fictional worlds*. Cambridge, MA: MIT.
Kirkpatrick, Graeme. 2007. Between art and gameness: Critical theory and computer game aesthetics. *Thesis Eleven* 89: 74–93.
Leino, Olli. 2009. Understanding games as played: Sketch for a first-person perspective for computer game analysis. In *Proceedings of the philosophy of computer games conference 2009*, ed. John Richard Sageng. Department of Philosophy, Classics, History of Art and Ideas, University of Oslo, Oslo.
Malaby, Thomas M. 2007. Beyond play: A new approach to games. *Games and Culture* 1(2): 95–113.
Malaby, Thomas M. 2009. Anthropology and play: The contours of playful experience. *New Literary History* 40: 205–218.
Malliet, Steven. 2007. Adapting the principles of ludology to the method of video game content analysis. *Game Studies* 7(1). http://gamestudies.org/0701/articles/malliet.
Nacke, Lennart and Craig A Lindley. 2008. Flow and immersion in first-person shooters: Measuring the player's gameplay experience. In Future Play '08: Proceedings of the 2008 Conference on Future Play, Toronto, 81–88. New York: ACM. doi:http://doi.acm.org/10.1145/1496984.1496998.
Nielsen, Henrik Smed. 2010. The computer game as a somatic experience. *Eludamos. Journal for Computer Game Culture* 4(1): 25–40.
Pajitnov, Alexey and Vadim Gerasimov. 1985. *Tetris*. PC game, Moscow.
Pankhurst, Richard. 1971. Gabata and related board games of Ethiopia and the horn of Africa. *Ethiopia Observer* 14(3): 154–206.
Robbins, Merle. 1971. *Uno*. Reading: Mattel Corporation, Card game.
Rodriguez, Hector. 2006. The Playful and the Serious: An approximation to Huizinga's Homo Ludens. *Game Studies* 6(1). http://gamestudies.org/0601/articles/rodriges.
Rollings, Andrew and Ernest Adams. 2003. *Andrew Rollings and Ernest Adams on Game Design*. Boston: New Riders.
Salen, Katie and Eric Zimmerman. 2003. *Rules of Play. Game Design Fundamentals*. Cambridge, MA: MIT.
Saltzman, Marc, ed. 1999. *Game design. Secrets of the sages*. Indianapolis: MacMillan.
Sartre, Jean-Paul. 2003. *Being and nothingness. An essay on phenomenological ontology*. London: Routledge Classics.
Smith, Jonas Heide Bossow. 2007. Plans and purposes. How videogame goals shape player behaviour. Ph.D. thesis, IT University of Copenhagen.
Stevens Jr., P. 1980. Play and work: A false dichotomy? In *Play and Culture*, ed. H.B. Schwartzman, 316–23. New York: Leisure.
Tavinor, Grant. 2009. *The art of videogames*. New Jersey: Wiley-Blackwell.
Taylor, T.L. 2009. The assemblage of play. *Games and Culture* 4(4): 331–339.
Verbeek, Peter-Paul. 2005. *What things Do. philosophical reflections on technology, agency, and design*. University Park: The Pennsylvania State University Press.
Verbeek, Peter-Paul. 2008. Cyborg intentionality: Rethinking the phenomenology of humantechnology relations. *Phenomenology and Cognitive Science* 7:387–395.
Vikhagen, Arne Kljell. 2004. Gadamer's concept of play. In Proceedings of Sensuous Knowledge 1, Bergen.
Wittgenstein, Ludwig. 1973. *Philosophical investigations*. New Jersey: Prentice Hall.

# Chapter 6
# Erasing the Magic Circle

**Gordon Calleja**

In striving to establish a theoretical framework for the academic study of games it is crucial that we, as game researchers, consider carefully the core concepts that pervade our work. Certain metaphors provide the very foundations upon which future research is to be built. If we are to move forward, we have to, as is the case with any developing field of study, take certain concepts as given. These are the tools of our trade. They allow us to progress without having to constantly try to re-invent the proverbial wheel. A great deal of work has recently gone into defining our object of study. Efforts at synthesising and refining previous game definitions undertaken by Juul (2005) and Salen and Zimmerman (2003) have been of great use in this respect. But the conceptual awareness I am advocating here delves deeper than definitions. It strikes at the assumptions that these definitions and other basic concepts that underlie our thinking about games take as given.

One of these crucial metaphors is the notion of the "magic circle". This metaphor, inspired by the work of Huizinga (1955) has become popular within the study of games as a marker of a separation between the "real" or "ordinary" world and the game. This paper follows theorists like Copier (2007), Lammes (2006), Malaby (2007) and Taylor (2006) in questioning the utility of the concept for the analysis and understanding of digital games. Aside from the normative assumptions the concept has on the experiential dimension of gameplay in general, it is particularly problematic when it is applied to digital games. The issue becomes particularly problematic when a metaphor adopted to help us understand a phenomenon actually misrepresents it. I will argue that this is the case with the magic circle.

The paper will first give an overview of the concept and its use within Game Studies. Then we will consider it's application in both formal and experiential contexts of separation. Finally the paper will demonstrate problems with applying the concept in the situated analysis of digital games through a concrete case study.

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## 6.1 The Magic Circle in Play

Initially coined by Huizinga (1955) in *Homo Ludens,* the magic circle has been widely adopted by Game Studies theorists (Juul 2005; Salen and Zimmerman 2003) to articulate the spatial, temporal and psychological boundary between games and the real world:

> All play moves and has its being within a play-ground marked off beforehand either materially or ideally, deliberately or as a matter of course. . .The arena, the card-table, the magic circle, the temple, the stage, the screen, the tennis court, the court of justice, etc., are all in form and function play-grounds, i.e., forbidden spots, isolated hedged round, hallowed within which special rules obtain. All are temporary worlds within the ordinary world, dedicated to the performance of an act apart (Huizinga 1955, p. 12).

The apartness described here is a defining element of play, to which Huizinga returns frequently throughout his work. For Huizinga, play is a "stepping out of real life into a temporary sphere of activity with a disposition all of its own" (Huizinga 1955, p. 9). In addition, all forms of play, be they those engaged in by humans or animals, have some form of rules and it is the adherence to and upholding of these rules that structure and sustain the magic circle (p. 12).

According to Huizinga, the rule-based nature of the magic circle creates "an absolute and peculiar order" (p. 10) within its boundary. The relationship between order and play is a crucial one for Huizinga as only with a vision of play as *the* ideal of organized human social structures can he go on to use play as an epiphenomenon upon which other aspects of human society and culture and can be compared and measured. Huizinga's interest in play can be traced to his 1919 book *The Waning of the Middle Ages* (Huizinga 1954). In this early work Huizinga argues that despite the unattainable nature of chivalric ideals, chivalry survived long after the socio-cultural contexts that engendered it died because of it's play-like qualities. Later, in *The Shadow of Tomorrow* (Huizinga and Huizinga 1936), Huizinga argues that the crisis in which the world found itself in at the time of writing was symptomatic of a culture which had perverted the ideals of play. So it is no surprise that in his final work we find such a definitive statement about the ordered nature of play:

> Here we come across another, very positive, feature of play: it creates order, *is* order. Into an imperfect world and into the confusion of life it brings a temporary, a limited perfection. Play demands order absolute and supreme (Huizinga 1955).

The magic circle is thus the boundary between order and chaos, between the idealized ritual of play and the mess of ordinary life. As Anchor (1978) points out, the notion of a distinct boundary between play and the real world becomes the cornerstone of a model of play against which higher forms of culture are measured. Once the play model is established in the first chapter of *Homo Ludens,* Huizinga goes on a tour of facets of culture such as: language, law, war, ritual and ritual; discussing how each expresses the play concept.

Although Huizinga sees play as separate from the real, his principal argument rests on proving that the play element pervades (and even precedes) all aspects of

human culture. The apart-ness of play is the apart-ness of ritual, which, Huizinga points out, shares all of the characteristics of play:

> Formally speaking, there is no distinction whatever between marking out a space for a sacred purpose and marking it out for purposes of sheer play. The turf, the tennis court, the chess board and pavement-hopstoch cannot be distinguished from the temple or the magic circle (Huizinga 1955, p. 20).

Salen and Zimmerman, in *Rules of Play,* review a series of prior game definitions in order to build their own. The definition has, as one of its core elements, the quality of artificiality written into it. This is later expanded upon in a chapter dedicated to the magic circle, which discusses the boundary that sets games apart from the real world:

> Although the magic circle is merely one of the examples in Huizinga's list of "play grounds", the term is used here as short-hand for the idea of a special place in time and space created by a game. The fact that the magic circle is just that-a circle-is an important feature of this concept. As a closed circle, the space it circumscribes is enclosed and separate from the real world... Within the magic circle, special meanings accrue and cluster around objects and behaviours. In effect, a new reality is created, defined by the rules of the game and inhabited by its players (Salen and Zimmerman 2003, pp. 95–96).

Salen and Zimmerman emphasize the importance of the bounded nature of games by comparing idle toying with an object, what Caillois (1962) has referred to as *paidia*, with the formal rule-based activity, called *ludus*, of a game such as Tic-Tac-Toe. Free-play thus becomes a game when the structured frame of the magic circle is imposed upon it. Later, Salen and Zimmerman argue that the magic circle surrounding games can either be open or closed, depending on the perspective, or "schema", as they call it, one adopts. According to them, games can be viewed as a system made up of rules; as a form of play activity and as a form of culture. In the case of the first, games are considered as closed systems completely separate from the external world. In the case of the second, they can be both open and closed since this depends upon our bracketing the gameplay experience from the rest of the player's lived history or not. Finally, games as culture are open systems with a permeable boundary.

There are some conflicts between Huizinga's conception of play and the magic circle and Salen and Zimmerman's appropriation thereof. Huizinga does not use the magic circle merely as one example of a list of play-grounds. As was discussed above, the apartness described by the metaphor of the magic circle is a salient feature of all the facets of culture he discusses and the magic circle becomes a shorthand for the notion of boundedness of play, and consequently other facets of cultural life with are ritualized in a similar manner. Huizinga, in fact, talks specifically about the magic circle in law: "But whether square or round it is still a magic circle, a play-ground where the customary difference of rank are temporarily abolished (Huizinga 1955, p. 77)"; war: "Despite appearances to the contrary, therefore, war has not freed itself form the magic circle of play" (p. 210) and spirituality: "The human mind can only disengage itself from the magic circle of play by turning towards the ultimate" (p. 212). The model, of which the notion of bounded separation represented by the magic circle is part, is a template upon

which the other cultural situations are compared to and measured. The concept is not, thus, just one example among many as a number of game theorists (Crawford 2009; Dovey and Kennedy 2006; Liebe 2008; Salen and Zimmerman 2003) have erroneously claimed, but a core feature of all the examples given.

Salen and Zimmerman sideline the central point of Huizinga's work when they argue for a non-bounded perspective on the cultural schema of games. Proving that cultural constructions are play-like and thus set aside from ordinary life is exactly Huizinga's central argument. Since the concept of the magic circle is at the heart of Huizinga's perspective, one cannot adopt it without taking also on board its user's principal argument. The confusion is compounded by the fact that Salen and Zimmerman seem to be using Huizinga in a positive manner, while at the same time going against the main thrust of his argument without forwarding a coherent critique thereof.

Salen and Zimmerman's use of the magic circle is here being focused on because numerous game researchers have taken it on as a defacto characteristic of games. Others, sensing the problematic implications of a circle, which is sometimes closed and sometimes open, have tried to forward modifications of the concept. Castronova (2005), for example, replaces the metaphor of the magic circle with that of the membrane, arguing that the latter is a better metaphor since it allows for a one-way traffic between games and the real world. In his view, the game inevitably informs the everyday experience of the player, but players should guard the magic of the game world from becoming tainted with real-life concerns.

Although Castronova finds the magic circle problematic and tries to work around it by using the concept of the membrane, the rest of *Synthetic Worlds* is replete with references to a separability between virtual worlds (or synthetic worlds, in Castronova's terms) and "the Earth". Castronova is unable to break out of the dualist conceptualisation of separability he earlier attempts to sidestep. He problematically sets virtual worlds apart from the Earth, which is associated with the destruction of otherwise beautiful fantasies that can be sustained in virtual worlds:

> When Earth's culture dominates, the game will be over, the fantasy will be punctured and the illusion will be ended for good... Living there will no longer be any different from living here, and a great opportunity to play the game of human life under different, fantastical rules will have been lost (p. 196).

There are clear difficulties in the application of the magic circle in close analyses. Contrary to Juul's (2008) claim, the magic circle is anything but a "straightforward phenomenon" (p. 58), accounting as it does for the complexity of inter-relationships between personal experience, culture and reality. Like Salen and Zimmerman, Juul seems to ignore the fact that the metaphor in Huizinga accounts for an entire worldview, not simply the space "where the game takes place" (Salen and Zimmerman 2003, p. 95). A metaphor laden with meaning, as the magic circle is within Huizinga, comes with an ontological baggage that cannot be discounted or ignored. Once we adopt the use of the term, we are also take on the ontology that places a distinct division between the reality/seriousness/utility and play/non-seriousness/gratuitousness (Ehrmann 1968). The difficulties with the magic

circle that are erupting within game studies might, in fact, exist because Huizinga's initial formulation thereof was inherently flawed.

Ehrmann (1968) criticizes Huizinga for conceiving of "ordinary life" or "reality" as a stable entity that can be compared, contrasted and measured against play. Huizinga takes for granted the existence of a "reality", perpetually escorted by the hesitant presence of quotation marks, that can, in some non-specified manner, be divorced from culture and/or play. But as Ehrmann rightly argues, there is no reality outside of the culture that constructs it:

> The problem of play is therefore not *linked* to the problem of "reality," itself linked to the problem of culture. It is one and the same problem. In seeking a solution it would be methodologically unsound to proceed as if play were a variation, a commentary *on*, an interpretation, or a reproduction *of* reality. To pretend that play is mimesis would suppose the problem solved before it had even been formulated (33–34).

Reality cannot be bracketed by closed or open circles, even if we could argue that a concept such as the latter is logically possible. Reality does not *contain* play; like any other socio-culture construction, play is an intractable manifestation of reality. A consideration of games, whether be it from the perspective of the game as object, game as activity or the game's role in the wider community, *is* a consideration of reality. As Taylor (2006) has rightly argued, such a perspective ignores the grounded analysis of these objects and activities while sidelining the fact that they are very much part and parcel of the mundane, everyday reality.

Huizinga himself does not manage to sustain the dichotomy between the play-element, and consequently those aspects of culture that correspond to it, and the "ordinary life" it is distinguished from. A symptom of this uneasy dichotomy is Huizinga's exposition of the relationship between play and seriousness. As Anchor argues:

> On the one hand, Huizinga repeatedly insisted that play does not exclude seriousness – if the two were mutually exclusive, it would obviously make no sense to ask how far culture itself bears the character of play. On the other hand, Huizinga was equally insistent on maintaining play and seriousness as two separate categories. As a result of this ambiguity, he was unable to provide an objective criterion for judging where play ends and seriousness begins (Anchor 1978, p. 87).

According to Ehrmann there is a tension in Huizinga between arguing for play as a primary component of culture, and at the same time viewing it as a complement which can be subtracted leaving an impoverished, but intact whole. This is evident not only in *Homo Ludens,* but even earlier in his *In the Shadow of Tomorrow* where he attributes the decay of culture to the absence of the play-element therein. Huizinga describes play as an "accompaniment" (p. 9) or adornment to a reality external to it. Play is an addition to the "necesseties of life" (p. 9). And this allows Huizinga to retain play as an entity untainted by the interests of economics and utility, and is thus described as a "disinterested" (Huizinga 1955, p. 9) or unproductive activity, which "stands outside the immediate satisfaction of wants and appetites" (p. 9). But clearly the expenditure of energy and time creates *something*. Now since the play-space is cordoned off from the real, whatever is produced through play must be consumed within play itself, otherwise it runs the risk of atrophying the play-element (p. 198). This ideal of play is

not sustainable in actuality. As Ehrmann points out, the supposedly interior world of play cannot exist without reference to its exterior, and hence become an integral part of the same economy:

> The interior occupied by play can only be defined by and with the exterior of the world, and inversely that play viewed as an exterior is only comprehensible by and with the interior of the world; that together they participate in the same economy. Play cannot therefore be isolated as an activity without consequences. Its integrity, its gratuitousness are only apparent, since the very freedom of the expenditure made in it is part of a circuit which reaches beyond the spatial and temporal limits of play (Ehrmann 1968, pp. 42–43).

The theoretical problems in *Homo Ludens* Ehrmann points to stem from Huizinga's inability to reconcile a notion of play as bracketed from the everyday, utilitarian real; in other words a view of play as an ideal space circumscribed by the magic circle, and the claim that play pervades culture. As theorists like Anchor (1978), Ehrmann (1968), Fink (1968) and later Copier (2007), Lammes (2006), Malaby (2007), Pargmann and Jakobsson (2006) and Taylor (2006) have argued, a dichotomous view on the relationship between play/games and the real world does not survive close analysis, whether this is derived from the critical humanities or the applied social sciences. This is not simply a rejection of dichotomies for their own sake, as Juul (2008) states in his response to critical reactions to the magic circle, but an acknowledgement that a close reading of positions that characterize issues such as culture and experience in dichotomous ways is bound to run into methodological quandaries which result in reductive, misrepresentations of the phenomenon under scrutiny. Juul argues that the critique of binary relationships is "a remnant of a battle fought long ago" (p. 64) and that game studies should move on. The battle has been fought long ago in various disciplines and it has been clearly established that such dichotomies are not the best foundations upon which to understand cultural phenomena, which is exactly why theorists like Copier, Malaby, Pargmann, Jakobsson, Taylor's and others have taken a stance against their uncritical re-introduction into game studies. The rest of the paper will give a situated account of *why* the concept of the magic circle is (a) redundant, and (b) misleading, when applied to the specific context of digital games.

## 6.2 The Magic Circle and Digital Games

Written in a pre-digital age, the treatment of play within *Homo Ludens* is based entirely upon socially agreed-upon and upheld conventions. Game researchers which consider games as a universal phenomenon ranging across various media such as Bryce and Rutter (2006), Juul (2005), Salen and Zimmerman (2003) rightly argue for an acknowledgement of the continuity between digital and non-digital games. As I have argued elsewhere (Calleja 2007), this taken for granted equivalence between physical and digital games is not tenable across all areas of research in games. The magic circle, predicated as it is on its being upheld by its participants (be they players, cultists, lawyers or poets) is strongly influenced by this question of

medium. The following sections will argue against the use of the magic circle in the case of digital games based on the two dimensions on which it is usually discussed: the formal separation in space and time and the psychological separation.

## 6.3 A Separation in Space

In *Half-Real* Juul (2005) draws on the magic circle to describe the relationship between the space where the games take place from the rest of the world. According to Juul, physical games and board games take place in a space which "is a subset of the space of the world: The space in which the game takes place is a subset of the larger world, and a magic circle delineates the bounds of the game" (Juul 2005, p. 164). The boundary can be made up of spatial perimeters and is often also temporally defined. The game can be limited to a specific area such as a tennis court or fencing piste', or woven into the everyday world such as in Live Action Role-Playing Games (LARPs), treasure hunts, and other forms of pervasive gaming. Here the spatial perimeter is less defined than the temporal one. The spatial and temporal boundaries of the magic circle in physical games are upheld by a social agreement clarifying the interpretation and validation of actions, utterances, and outcomes; in other words, the rules.

But in the case of digital games, where is the magic circle? Juul traces the magic circle of digital games through the hardware devices that enable their representation:

> [T]he magic circle is quite well defined since a video game only takes place on the screen and using the input devices (mouse, keyboard, controllers) rather than in the rest of the world; hence there is no "ball" that can be out of bounds (Juul 2005, pp. 164–165).

He goes on to compare the magic circle in physical games with that in digital games based on the spatial qualities of each. With physical games the magic circle separates real world space from game space, while in the case of digital games the magic circle separates the fictional world of the game from the game space. The latter is based on an assumption that "the space of a game is *part of* the world in which it is played, but the space of a fiction is *outside* the world from which it is created" (p. 164). In the case of digital games, the utility of the magic circle's function as a marker where rules apply loses its analytical relevance. In physical games the distinction is needed because the game rules are upheld socially. Actions that take place within the marked area of the game, when this exists, are interpreted differently from actions outside that area. In most digital games the distinction is void since the only on-screen space that one can act in is the navigable space of the virtual environment. The stadium stands in *FIFA 09* (EA Sports 2008) or the space outside the combat area in *Battlefield 1942* (Digital Illusions CE. 2002) cannot be traversed, they are merely a representational backdrop. The role of the magic circle as spatial marker is thus redundant when applied to digital games.

The question of fictionality has been discussed at great length in literary theory and its adaptation to digital games would require a more lengthy treatment than is the scope of the present paper. Walsh (2007) makes a compelling case against

dualist separations of fiction based on the rhetorical specificity of the language (here used in a broad sense of codified systems of representation in any medium) in which the fiction is communicated:

> Fictionality, I would suggest, functions within a communicative framework: it resides in a way of using language, and its distinctiveness consists in recognizably distinct rhetorical set invoked by that use... If fictionality consists in a distinct way of using language, it is not explained by attaching its distinctiveness to some quarantine mechanism conceived precisely to maintain its conformity with non-fictional usage, at the cost of detaching it, in one way or another, from its actual communicative context (p. 15).

As Walsh argues throughout his work, the qualities of fiction cannot be fully described formally because they are intrinsically built into the reality of the language that conveys the fiction. If anything, the most enduring fictional worlds like Tolkien's Middle Earth are appealing because they draw so heavily on established cultural texts and contexts (Northrup 2004). Juul's assertion that games are made of "real rules and fictional worlds" (Juul 2005, p. 1) hides the fact that both game rules and the representation of fiction are designed constructs, neither of which carries or denies a claim to reality.

## 6.4 The Experiential Dimension

More problematically, the concept of the magic circle has also been applied to the experiential dimension of gameplay. Within game studies it is often taken as a given that gameplay involves entering a particular experiential mode that was described by Bernard Suits (1978) as the "lusory attitude" (p. 52). The lusory attitude is closely tied to the notion of the magic circle because it is similarly built on the assumption that players voluntarily step into an attitude which is apart from ordinary life; an experiential mode that occurs only during game playing:

> The attitude of the game player must be an element in game playing because there has to be an explanation of that curious state of affairs wherein one adopts rules which require one to employ worse rather than better means to reach an end (p. 52).

The voluntary decision to follow an inefficient course of action in order to play by the rules only applies to the socially negotiated aspect of digital games. But the majority of actions possible are programmed into the game system and cannot be changed. I cannot decide to not adhere to the game rules in *World of Warcraft* (Blizzard Entertainment 2004) and have my character run at twice the speed. If there is an item, ability, or spell that allows me to do so, it lies within the structure of the game rules and its use is thus in adherence to them.

But a more serious problem with Suits' notion of the lusory attitude is that it is formulated as a defining element of games. This creates a problematically circular argument that essentially claims games are activities that require a lusory attitude and that the lusory attitude is an experience that occurs when playing a game. Ifwe had to follow Suits' logic, the inability in a number of digital games, particularly

single-player ones, to voluntarily adopt inefficient means in playing them means that we cannot enter into a lusory attitude, and thus such activities are not games.

As Malaby (2007) points out, we cannot logically use play to refer to both a mode of human experience and a form of activity. In other words, we cannot say that when we engage with a game we are entering a particular experiential mode (the lusory attitude, for example) determined by the very act of engaging with the game. As Taylor argues, these forms of experientially deterministic arguments simplify the complexity of game engagement:

> While the notion of a magic circle can be a powerful tool for understanding some aspects of gaming, the language can hide (and even mystify) the much messier relationship that exists between spheres – especially in the realm of MMOGs. . . It often sounds as if for play to have any authenticity, meaning, freedom, or pleasure, it must be cordoned off from real life. In this regard, MMOG (and more generally, game) studies has much to learn from past scholarship. Thinking of either game or nongame-space as contained misses the flexibility of both (Taylor 2006, p. 152).

The objection to the magic circle as a form of experiential bracketing has been particularly strong from researchers conducting qualitative studies with players. Ethnographic work by Taylor (2006), Malaby (2007), Copier (2007), and Pargman and Jakobsson (2006) indicates that such a separation is not found in the situated study of gamers:

> Problems with using the concept of the magic circle as an analytical tool have made themselves known now and again. These problems become especially clear when the researcher in question has actual empirical material at hand that he or she without much success tries to understand by applying the dominant paradigm of the separateness of play (Pargman and Jakobsson 2006, p. 18).

An attempt to create a clean demarcation between the game experience and the experience of the world (supposedly) external to it will be severely challenged to explain how the players' personal and social histories can be excluded from the game activity. It is hardly possible for the "game space" to block out the complexity of social and personal relations. The lived experience of the players invariably informs, to different degrees depending on circumstance, the experience of the game and vice-versa.

The experiential separation of play becomes even more problematic when contemporary developments in digital games, like Massively Multiplayer Online Games (hereafter referred to as MMOGs), are considered. Activities like planning and coordinating 40 man raids in *World of Warcraft* (Blizzard Entertainment 2004), which include several hours of tedious "farming"[i] of items that will be needed to ensure the success of the raid, are often viewed as boring chores rather than pleasurable play. Yee has collected a wealth of quantitative data on MMOG players and in a recent paper published in *Games and Culture* he observes how MMOG "playing" can often feel like a second job:

> The average MMORPG[ii] player spends 22 hours a week playing the game. And these are not only teenagers playing. The average MMORPG gamer is in fact 26 years old. About half of these players have a full time job. Every day, many of them go to work and perform an assortment of clerical tasks, logistical planning and management in their offices, then

> they come home and do those very same things in MMORPGs. Many players in fact characterize their game-play as a second job: "It became a chore to play. I became defacto leader of a guild and it was too much. I wanted to get away from real life and politics and social etiquette followed me in (Yee 2006, p. 69).

Further examples of the inadequacy of the magic circle to account for the experience of digital gameplay come in a host of other forms: companies employing people to farm in-world gold and sell it on e-Bay or offer character levelling services, social and cultural issues that crop up whenever you have masses of people interact in persistent environments, virtual worlds which require real money expenditure for the acquisition of virtual goods, such as *Second Life* (Linden Lab 2003) or *Project Entropia* (MindArk 2003) and more. Dibbell (2006) has written a compelling account of his forays in the trade of virtual assets and gold. In order to investigate the phenomenon often referred to as "real money trade" or the exchange of virtual world items for widely accepted currency, Dibbell embarked upon a year long stint buying and selling property, goods and gold in the popular *Ultima Online* (Origin Systems 1997) MMOG. Dibbell's *Play Money* is a self-reflexive meditation on the wide spectrum of experiences that MMOGs enable and the profound impact these experiences can have on a person's life. Dibbell describes how his engagement with *Ultima Online* transformed from a form of entertainment to a full time job. He uses his experiences to foreground the inadequacy of the magic circle and the application of the work/play binary to MMOGs.

But aside from such obvious examples, it is generally difficult to bracket off an aspect of experience that expresses a specific mindset entered into during gameplay. This is particularly evident in digital games since the upholding of the game rules is, for the most part, upheld by the machine code. It would be incredibly misleading to label all forms of interactions in virtual environments with ludic properties as having a specific experiential disposition by the very virtue of engagement therein. We are better served by furthering our understanding of game engagement un-burdened by such normative assumptions.

Before concluding the paper I will briefly discuss why the magic circle did not figure in my research with player involvement and immersion in digital games. Its inclusion would have misrepresented the phenomenon under scrutiny, creating a boundary where none existed.

## 6.5 Contexts

My doctoral dissertation analyzes factors that influence player involvement in digital games. An important part of the argument is a model that describes the different forms of involvement that games can potentially engage players with. The model plots the different forms of involvement along a temporal scale ranging from general motivation to play games to the situated instance of gameplay. If I had taken the notion of the magic circle on board when building my model, I would have needed to signal a point where players "entered" the magic circle; a point in

time where activities undertaken are tinged with a playful attitude (Suits 1978; Salen and Zimmerman 2003). Although research participants discussed various attitudes towards the game along with a host of aspects that clearly engaged them, there was no mention of such a shift into a specific attitude that coloured all others. If anything, a number of players expressed how games became subsumed as part of their everyday lives and, vice-versa, how everyday life became infused with discussions and thoughts surrounding games. By placing into question the validity of a clear line of demarcation between game and non-game we open up the analysis of game involvement beyond the formal parameters of the game. This requires a perspective on involvement that extends along a continuum of attentional intensity ranging from a general motivation to participate in digital games to a focused deep involvement and finally the incorporation[1] of the represented space into a habitable and immediately accessible domain for exerting agency.

A dichotomous boundary view of player involvement tells us very little about the nature of the experience, and more importantly it hides the fact that game experiences vary hugely among different games, different players of those games and each specific sitting. By leaving behind an either/or perspective and focusing on the specificities of the individual engagement, we open up our inquiry to a richer understanding of the feedback loop between player and game that is not normatively pre-determined by simplistic binaries.

This thinking extends to notions of immersion and presence. The depth of engagement the terms describe tends to similarly be expressed in terms of either/or relationships: present or not. These assumptions are pronounced in the metaphor of the submergence of the participant *into* the virtual environment, a subjective cogito poured into a containing vessel:

> The experience of being transported to an elaborately simulated place is pleasurable in itself, regardless of the fantasy content. Immersion is a metaphorical term derived from the physical experience of being submerged in water. We seek the same feeling from a psychologically immersive experience that we do from a plunge in the ocean or swimming pool: the sensation of being surrounded by a completely other reality, as different as water is from air that takes over all our attention our whole perceptual apparatus (Murray 1998, p. 98).

Presence has similar connotations, but its application is focused more by what I will argue is one of the two simultaneously occurring, defining aspects of the phenomenon: the anchoring of participants to a specific location within the virtual environment that objects and entities within it react to. Up to this point the metaphor works. But it also typically refers to the placing of the participant's subjectivity inside the environment in the same way as immersion does. Both metaphors imply a uni-directional process that disguises the most potent elements of the phenomenon in the context of virtual environments. As has been discussed in depth elsewhere (Calleja 2007), the potency of experience lies in the increasing ease and immediacy with which we can extend multiple dimensions of our lived

[1] For a more detailed discussion of the phenomenon of incorporation see *In-Game: From Immersion to Incorporation* available from MIT Press as of Spring 2011.

experience to contemporary virtual environments, particularly in the case of digital games. As the complexity and sophistication of these digital media increase, the metaphor of everyday life becomes more easily adaptable to experiences within them. By everyday life I am here referring to the composite nature of contemporary being in its social and media-saturated cultural dimensions. The appeal of otherness that these environments promise becomes organized by the same structuring principles of the everyday social world. Herein lies the power of the composite phenomenon that presence and immersion allude to: a process of internalization and experiential structuring that is compelling precisely because it draws on our fundamental social learning. Lakoff and Johnson (2003) emphasize this dynamic of transference between experiential gestalts as the core of their experientialist ontology:

> The nature of our bodies and our physical and cultural environment imposes a structure on our experience, in terms of natural dimensions of the sort we have discussed. Recurrent experience leads to the formation of categories, which are experiential gestalts with those natural dimensions. Such gestalts define coherence in our experience. We understand our experience directly when we see it as being structured coherently in terms of gestalts that have emerged directly from interaction with and in our environment. We understand experience metaphorically when we use a gestalt from one domain of experience to structure experience in another domain (Lakoff and Johnson 2003, p. 226).

Because of the accumulated definitional and disciplinary issues associated with the use of "presence" and "immersion" I have elsewhere argued that a new term is necessary to permit effective inquiry into the distinctive qualities of virtual environments that moves beyond the dichotomous perspective implied by the current literature on "presence" and "immersion". I have used the metaphor of "incorporation" to signify an internalization of the digital environment that makes it present to the participant's consciousness as a domain for exerting agency *while simultaneously* being present to others within it through the figure of the avatar. The logic behind the displacement of the immersion and presence terms was necessary precisely because the binary they imply becomes detrimental, as a conceptual foundation, to a theory that seeks to explain an intensely subjective and sub-conscious form of experience.

## 6.6 Conclusion

As game studies researchers we have the opportunity to adopt existing theoretical frameworks, models and concepts from other disciplines, or to shape our own. Existing academic work in related fields can yield rich perspectives on our research interests, but we need to be particularly cautious when selecting the foundational concepts and metaphors that pervade our work. Starting an analysis of games, or any other cultural artefact or activity, as surrounded by a boundary, no-matter how fuzzy or permeable, presents the immediate challenge of articulating what lies outside of that boundary. Whether it's the "real", "ordinary" or "everyday", notions

of boundaries require our object of inquiry to be contrasted and measured against a stable reality external to it. But as scholars in a variety of fields that have contended with this problem have argued, the thing we are analysing is a manifestation of the reality we seek to cordon it off from. Of course, Huizinga and Caillois were writing at a time when such ontological partitioning had not yet been challenged by the critical lens of post-structuralism. Writing in the twenty-first century, we do have the luxury of such an argument and cannot just bury our heads in the proverbial sand and take on such terms uncritically.

Why work with a metaphor that is laden with such problematic implications when there are far better perspectives in various fields that represent the phenomenon in question? Pargmann and Jakobsson (2006) as well as Crawford (2009), for example, have advocated the use of Goffman's (1986) frame analysis to understand the interpretation of social conventions that game-rules ultimately are. This takes a body of research that is specifically aimed at explaining the complexity of interpreting social situations and the related structures (such as rules) involved. Of course, there are other frameworks we can draw from, but let us settle on concepts that are analytically productive not problematically reductive. It seems as though we have adopted an overly simplistic concept from Huizinga merely because he represents an early engagement with the study of play (and partially games). There are a number of interesting observations Huizinga has made about the role of play in culture, but the concept of the magic circle, and his overall perspective on culture simply do not live up to contemporary scrutiny.

On a related note, as Crawford (2009) and Liebe (2008) have argued, the media specificities of digital games require an altogether different consideration of social and experiential dimensions than physical and board games do. On top of this, the particular media configuration found in digital games makes the magic circle particularly unproductive, if not outright misleading. It is high time that we abandon the concept of the magic circle altogether, (along with modifications thereof), in favour of more nuanced and analytically productive concepts specifically adopted for the particular focus we are taking on the complex and varied phenomenon that is digital gameplay.

## Endnote

i. Farming refers to the activity of mechanical harvesting resources or repeatedly killing mobs that are known to drop items, materials or gold as a goal in itself.

ii. MMORPG stands for Massively Multiplayer Online Role Playing Game. This term is sometimes used interchangeably with MMOG or Massively Multiplayer Online Game. The former is a subset of the latter which includes other MMO genres such as MMOFPS or Massively Multiplayer Online First Person Shooter and MMORTS, Massively Multiplayer Online Real Time Strategy. I will be using the term MMOG to refer to all these genres of online games.

## References


Anchor, R. 1978. History and play: Johan Huizinga and his critics. *History and Theory* 17(1): 63–93.

Blizzard Entertainment. 2004. World of warcraft. PC: Vivendi Universal.

Bryce, J., and J. Rutter. 2006. *Understanding digital games*. London: Sage.

Caillois, R. 1962. *Man, play and games*. London: Thames and Hudson.

Calleja, G. 2007. Digital games as designed experience: Reframing the concept of immersion. Unpublished doctoral thesis, Victoria University of Wellington, Wellington.

Castronova, E. 2005. *Synthetic worlds: The business and culture of online games*. Chicago: University of Chicago Press.

Copier, M. 2007. Beyond the magic circle: A network perspective on role-play in online games. Unpublished doctoral, Utrecht University.

Crawford, G. 2009. Forget the magic circle (or towards a sociology of games). *Paper presented at the Under the Mask 2*. University of Bedfordshire.

Dibbell, J. 2006. *Play money: Or, how I quit my day job and made millions trading virtual loot*. New York: Basic.

Digital Illusions CE. 2002. Battlefield 1942. PC: Digital Illusions CE.

Dovey, J., and H.W. Kennedy. 2006. *Game cultures: Computer games as new media*. Berkshire: Open University Press.

EA Sports. 2008. FIFA 2009. XBOX 360: EA Sports.

Ehrmann, J. 1968. Homo Ludens revisited. *Yale French Studies* 41: 31–57.

Fink, E. 1968. The oasis of happiness: Toward an ontology of play. *Yale French Studies* 41: 19–30.

Goffman, E. 1986. *Frame analysis: An essay on the organization of experience*. Boston: Northeastern University Press.

Huizinga, J. 1954. *The waning of the middle ages; a study of the forms of life, thought, and art in France and the Netherlands in the XIVth and XVth centuries*. New York: Doubleday: Anchor.

Huizinga, J. 1955. *Homo ludens; A study of the play-element in culture*. Boston: Beacon.

Huizinga, J., and J.H. Huizinga. 1936. *In the shadow of tomorrow*. New York: W. W. Norton & Company.

Juul, J. 2005. *Half-real: Video games between real rules and fictional worlds*. Cambridge, MA: MIT Press.

Juul, J. 2008. The magic circle and the puzzle piece. Paper presented at the Philosophy of Computer Games 2008, Potsdam.

Lakoff, G., and M. Johnson. 2003. *Metaphors we live by*. Chicago: University of Chicago.

Lammes, S. 2006. Spatial regimes of the digital playground. Paper presented at the Gaming Realities: A Challenge for Digital Culture, Athens.

Liebe, M. 2008. There is no magic circle. Paper presented at the Philosophy of Computer Games 2008, Potsdam University, Germany.

Linden Lab. 2003. Second life. PC: Linden Lab.

Malaby, T. 2007. Beyond play: A new approach to games. *Games and Culture* 2(2): 95–113.

MindArk. 2003. Project Entropia. PC: MindArk.

Murray, J.H. 1998. *Hamlet on the holodeck: The future of narrative in cyberspace*. Cambridge, MA: MIT Press.

Northrup, C. 2004. The qualities of a Tolkienian fairy story. *Modern Fictional Studies* 50(4).

Origin Systems. 1997. Ultima Online. PC: Electronic Arts.

Pargman, D., and P. Jakobsson. 2006. The magic is gone: A critical analysis of the gaming situation. Paper presented at the Gaming Realities: A Challenge for Digital Culture, Athens.

Salen, K., and E. Zimmerman. 2003. *Rules of play: Game design fundamentals*. Cambridge, MA: MIT Press.

Suits, B.H. 1978. *The grasshopper: Games, life, and Utopia*. Toronto/Buffalo: University of Toronto Press.

Taylor, T.L. 2006. *Play between worlds: Exploring online game culture*. Cambridge, MA/London: MIT Press.
Walsh, R. 2007. *The rhetoric of fictionality: Narrative theory and the idea of fiction*. Columbus: Ohio State University Press.
Yee, N. 2006. The labour of fun. *Games and Culture* 1(1): 68–71.

# Part II
# Ethics and Play

# Chapter 7
# Introduction to Part II: Ethics and Play

**Hallvard Fossheim**

Every sort of human activity and invention is of interest to ethics. Normative theory is the part of ethics which tries to flesh out considerations and arguments about why one should act in a certain way rather than another. And such investigations encounter fresh challenges when faced with the plethora of computer gaming entities and events. Often and to a great extent, this is more broadly due to the fact that applying old regimes to new domains, or old tools to new machines, always requires some effort. But it may also be partly because there is something in the encountered phenomenon which is substantially new and not quite like anything we have faced before. In such cases, the consequences can still be anything from small scale tinkering to something like an intellectual revolution.

At present, there is no unanimity on how computer games fare on such a newness scale. But two dimensions of computer games in particular stand out when it comes to investigating their status vis-à-vis more traditional applications of ethical thought: agency and identity. The two are tightly interlinked. Identity concerns what it takes to be a person, and how far various features or aspects should be seen as parts of that person. And this question normally becomes important in the context of an act being performed, either on the part of the person, or on the part of someone else who through their act affected him or her. (Actions might also include omissions.) The issue of personhood and agency in this context is normally about one's status as a morally responsible agent or as a patient (in a wide sense meaning 'sufferer' or 'recipient') with moral worth.

Correspondingly, the field of ethics is especially interesting to computer games. It is also an important one, and we have already seen examples of putatively criminal activities in online gaming. Among the various strands of normative theory that might be deemed relevant to understanding and evaluating the practices and acts of gaming, virtue theories and rights theories in particular stand out.

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Virtue ethics has during the last half century emerged as a leading form of normative theory. The term 'virtue ethics' is normally reserved for ethical theories that base their moral analysis on characterizations in terms of virtues and vices, while 'virtue theory' includes more broadly any ethical theory that has talk of virtues and/or vices as a marked component. For present purposes, the nitty-gritty of these vocabularies is not important, but the distinction does serve to remind us that analyses in terms of virtues and vices can form a highly fruitful aspect of gaming theory without tying the theoretician to specific views of the basis of ethical thought and action. At any rate, one of the things that makes virtue theory so promising, is its quality of constituting an ethical theory with a specifically human face. Actions and agents are analyzed in terms that also have a place in everyday, non-philosophical discourse, such as being courageous and cowardly, just or unjust, smart or dumb, even-tempered or rash. As we shall see in this part, virtue theory thus offers a means of ethical evaluation of play that is at the same time the beginning of a psychological analysis of players. (For an excellent compilation of central contributions within contemporary virtue ethics, cf. Crisp and Slote 1997.)

Fruitful and promising as it is, however, virtue theory should certainly not monopolize the study of these phenomena. One aspect of the practical sphere that is hard to cash out in terms of virtue and vice is the notion of rights. Talk of rights stems primarily from the deontological strand in normative theory, which has Immanuel Kant as one of its grand old men (cf., e.g., Kant 1997). A right is something you have at least partly through your own status, whether we think of that status in terms of rationality or in terms of humanity, or even our animal nature. According to the first option, our rational nature makes us all not only appreciative of, but participants in, a complex structure of rights in our interactions with others. According to the broader way of construing the basis of rights, it is not least our nature as fragile beings, capable of suffering, that ensures us a status as holders of rights. Either way, there is an interesting mirroring of rights and duties. Often, one person's right is another person's duty. To my right not to be stolen from corresponds your duty not to steal from me. But how far, and into which domains, do our rights and duties extend? The present part will provide arguments for considering entities and acts inside the gameworld as eligible in both respects.

One insight which has been spawned in various guises from all the intellectual traditions mentioned, is the importance of considering the level of the community and of the expectations that prevail among the community's participants. Although both character, rights, and experience have a main focus on the individual, they all also recognize and address the interactions and practices that arise between individuals and are upheld by communities reducible to no one single individual. We can thus reasonably speak of the virtues of a given community's practices, of rights as generated partly by what in the relevant community is perceived as reasonable expectations, and of a social world as the object of phenomenological analysis. In the present part you will encounter examples of each such approach. And again, it should be pointed out how crucial this is to the believability of any theoretical approach to computer games. Gaming sets up social worlds. Among the related phenomena breached in this part is thus the fact of trust as a defining feature

(and indeed as a precondition) of our interaction, online as well as offline; the complexity of being affected, morally as well as competence-wise, through one's game activity; and, the ethical implications of the fact that gameworlds are entirely man-made or fabricated, and so constitute constructs to an extent few other entities in our surroundings do.

In his "Digital Games as Ethical Technologies" game researcher Miguel Sicart focuses primarily on the part played by design. His main objects of analysis are *Bioshock* and *Grand Theft Auto IV*. After providing a brief design vocabulary, Sicart goes on to argue that the specifically ethical aspect is constituted by choices made by the gamer. The point that computer games are ethical technologies is brought home by reminding us that games are products of human invention that at the same time offer experiences, and as such are never neutral, but set up the player's world in a particular way, opening for particular choices and alternatives. Given these premises, it is reasonable that the phenomenological tradition, which offers a variety of tools for the philosophical analysis of experience, should play a prominent role in further analyses. As computer games are also systems of information, Sicart advocates the use of Information Ethics as a higher-level investigative tool. Sicart's contribution thus also points the way towards further ethical explorations of games as clusters of technologies – that is, as all-encompassing artefacts. What may be the further implications when it comes to being responsible for designing certain kinds of choices for the players, for instance? And what are the closest analogies to this state of affairs outside the gameworlds, if such exist? Sicart's suggestions may help pave the way for further detailed analysis along these axes. On a practical level, his discussion suggests a method for analyzing particular design decisions as generators of ethical experiences.

Philosopher Edward Spence's "Virtual Rape, Real Dignity: Meta-Ethics for Virtual Worlds" puts forth the provocative and interesting claim that ethical relations apply to avatars. He argues that virtual worlds of playing and chatting do not provide a "magic circle" that render them non-moral, robbing players (extended through their avatars) of their moral rights or duties. Avatarial agency is still purposive agency, and does not insulate the agent from the moral dimensions of interaction. Furthermore, in cases where the traditional, out of game identity of the player is unavailable to those he or she interacts with, the epistemic access settles the issue of moral status as being correctly attributed to the avatar. The activities in question, whether playing or chatting, remain the actions of purposive agents, and as such stay within the purview of morality and of the rights of agents. Spence's arguments force us to make some hard choices concerning both agency and responsibility in computer gaming. In a fast and loose sense, players' ways of describing their activities support the intuition that we are indeed agents in that mode as well. If we furthermore broaden the issue from that of avatars to that of less direct forms of agency in the game setting, it becomes a real question whether or to what extent moral responsibility rests also on those who allow vicious acts to occur, either by passively observing them or by providing a design that facilitates them. These practical implications, it might be added, can be seen not only as moral conundrums, but also as judicial challenges.

A different defence of a similar position concerning responsible agency is found in the essay "Ethics and Practice in Virtual Worlds" by philosopher Ren Reynolds. He argues that, contrary to what some have thought, acts in MMOs do form objects of moral evaluation. He does this by considering three dimensions of MOO action and interaction. First, they normally do not constitute fragmented forays into a purely Hobbesian world, but trade on trust. Second, there is usually a level of identification between gamers and avatars. And third, what is crucial for a correct evaluation is an appreciation of what can be considered reasonable expectations in the virtual world in question. Reynolds sharpens his case by arguing that acts occurring in MMOs have moral content to the extent that they meet a specific set of criteria. A vital requirement is that the acts occur within the context of an identifiable community of practice. Reynolds brings to the fore the importance of the level of community as an object of analysis and evaluation. Both trust and shared expectations arise in and partly take shape from local practice, but bear witness to much broader requirements for human interaction. Indirectly, Reynolds thus also provokes the large and hitherto largely uninvestigated question of the relative autonomy of any given gameworld, or of gameworlds taken together as a sphere of action and experience. To what extent could they be said to constitute a source of normativity, and to what extent are these features of the gameworld necessarily shadows of requirements stemming from outside the game? If we can determine the nature and extent of the relevant values, Reynolds' discussion can help us towards developing a tool for understanding the practical basis of our lives as they are increasingly played out in virtual spaces.

In "The Ethics of Computer Games: A Character Approach" philosopher Adam Briggle discusses ways in which computer games may be said to affect how we see and interact with the world. Gameplay, Briggle argues, can come to alter us in terms of not least technical propensities and abilities, as well as in ways that are more directly related to ethical outlook and practice. Some of these alterations of our agency are willed, while others are nonvoluntary. Not least, some of them might be of relevance to us as ethical beings by relating to our character: complex traits and features that help define us morally. A plethora of phenomena, from mild emotional after-effects to more deep-seated habits of valuation and general outlook, are potentially malleable by the individual's own active engagement with computer games, even without the awareness of the player. Briggle presents us with a broad array of ways in which gameplay can come to affect us. Among the wider questions his efforts provoke, is not least the issue of how ethical character relates to non-ethical aspects of human agency. Gameplaying makes obvious what is true of all human activity: on one level, it requires skills. Shooting someone normally requires sight, but is seeing thus an ethical activity? Performing an action in today's computer games may require dexterity when it comes to the manipulation of a joystick or keyboard, but how do these forms of manipulative competence relate to the ethical level of action? Some technical competences may be inherently morally imbued or even tainted. But in most cases, we will need to work out how the technical level or levels relate to the avowedly ethical level in the case at hand, in order properly to evaluate the technical level. Here too, there is further work to be

done in the budding field of computer game philosophy. In design, Briggle's insights can thus be elaborated towards guiding the production of games that develop valuable skills and to red-flag situations where devaluations may occur; while for parents and consumers, they help articulate intuitions about which games are worthwhile endeavours, which are suspect, and why.

## References

Crisp, Roger, and Michael Slote (eds.). 1997. *Virtue ethics*. Oxford: Oxford University Press.
Kant, Immanuel. 1997. *Groundwork of the metaphysics of morals*. Cambridge: Cambridge University Press.

## Suggestions for Further Reading

Balkin, Jack M., and Beth S. Noveck (eds.). 2006. *The state of play: Law, games, and virtual worlds*. New York: New York University Press.
Bartle, Richard. 2003. *Designing virtual worlds*. Indianapolis: New Riders.
Borgmann, Albert. 1984. *Technology and the character of contemporary life*. Chicago: University of Chicago Press.
Chatfield, Tom. 2011. *Fun Inc.: Why games are the 21st century's most serious business*. London: Virgin Books.
Consalvo, Mia. 2005. Rule sets, cheating, and magic circles: Studying games and ethics. *IRIE* 3 (06/2005): 7–12.
Copier, Marinka. 2005. Connecting worlds: Fantasy role-playing games, ritual acts and the magic circle. In *Proceedings of Digital Research Association (DiGRA) 2005 Conference: Changing Views-Worlds in Play,* Canada, June 16–20, 2005. Vancouver: University of Vancouver.
Dibbell, Julian. 1999. *My tiny life: Crime and passion in a virtual world*. New edition. London: Fourth Estate.
Fairfield, Joshua. 2009. The magic circle. *Vanderbilt Journal of Entertainment and Technology Law* 11(4): 823–840.
Floridi, Luciano. 2010. *The philosophy of information*. Oxford: Oxford University Press.
Huizinga, Johan. 1955. *A study of play element in culture*. Boston: Beacon.
Ihde, Don. 1990. *Technology and the lifeworld. From garden to earth*. Indiana: Indiana University Press.
McIntyre, Alasdair. 1984. *After virtue*, 2nd ed. Notre Dame: University of Notre Dame Press.
Montola, Markus. 2005. Exploring the edge of the magic circle: Defining pervasive games. In *Proceedings of Digital Arts and Culture*, December 2–4, 2005, 1–4. Copenhagen: IT University in Copenhagen. http://users.tkk.fi/~mmontola/exploringtheedge.pdf. Accessed 7 June 2010.
Muggleton, David. 2000. *Inside subculture: The postmodern meaning of style*. Illustrated edition. Oxford: Berg.
Sicart, Miguel. 2009. *The ethics of computer games*. Cambridge: The MIT Press.
Spence, Edward. 2006. *Ethics within reason: A neo-gewirthian approach*. Maryland: Lexington Books.
Spence, Edward. 2007. Positive rights and the cosmopolitan community: A right-centred foundations for global ethics. *Journal of Global Ethics* 3(2): 181–202. July/August 2007.
Verbeek, Peter Paul. 2005. *What things do. Philosophical reflections on technology, agency, and design*. University Park: Penn State University Press.

# Chapter 8
# Digital Games as Ethical Technologies

**Miguel Sicart**

## 8.1 Introduction

What are the values of an object? How can philosophy illuminate the inherent rhetorical, social, political and moral meanings inscribed in any designed technology? And how can we do this without falling in the intentional fallacy, ascribing all responsibility to the designer? Because, as design researcher Nigel Cross has stated, "design is rhetorical [. . .] in the sense that the designer, in constructing a design proposal, constructs a particular kind of argument, in which a final conclusion is developed and evaluated as it develops against both known goals and previously unsuspected implications" (Cross 2007, p. 51). In this chapter I will look at game design and how it is used to create ethical experiences, only I will not start from the perspective of the designer, but of the finished product as experienced by a user. In this sense, I am extending the rhetorical analysis of design proposed by Cross, and suggesting a way of understanding the ways in which design conveys meaning.

My focus will be ethics, or the way in which game design can be used to create experiences in which moral thinking is central to the ludic activity. By doing so, I will argue that digital games are ethical technologies, capable of embodying values and projecting them into the user experience. The relation between computer games and ethics has been approached from a variety of academic perspectives. There is a large body of work on the alleged effects of violent computer games (Bushman and Huesman 2000; Anderson and Dill 2000; Anderson and Bushman 2001; Funk et al. 2004; Endresen and Olweus 2005). These studies use psychological methods to evaluate the impact of violent games in their users, deriving their ethical conclusions from the interpretation of those results. These are not studies on the ethics of computer games, but on the psychology and physiology of computer game players.

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Other research has focused on issues of cheating (Consalvo 2005), the ethical interpretation of playing violent computer games (McCormick 2001), and the political and moral nature of serious games and simulations (Penny 2004). There are also popular press reflections on the ethical nature of computer games (Takahashi 2004), and introductions to the ethical analysis of computer games targeted to a game developer audience (Reynolds 2002). Most of these works are focused on the act of playing games, or on the audiovisual elements of computer games, without any focus on the actual design of computer games.

This chapter is focused, then, on design. I will investigate what the relation between ethics and game design is, with the intention of describing games as ethical technologies that can be experienced as challenges, or exercises on moral thinking. I will analyze these types of experiences using a postphenomenological framework. The results of this analysis will then be formalized into an ethical interpretation using Information Ethics. My goal is to provide a convincing framework for the study of game design from an ethics perspective.

The examples that illustrate this analyses are taken from the Xbox 360 versions of *Bioshock* (2KBoston/2KAustralia 2007) and *Grand Theft Auto IV* (Rockstar North 2008). The analysis of these games as designed systems for interaction is based on design (Norman 2002) and game design theory (Salen and Zimmerman 2003; Rouse 2005; Rollings and Adams 2003), as well as game research (Juul 2005; Järvinen 2008). As previously stated, the philosophical framework is double: the analysis of games as technologies will use Ihde's postphenomenology (Ihde 1990; Verbeek 2005); the ethical analysis will apply an Information Ethics perspective (Floridi 2003a, 2003b). These two approaches are complementary: postphenomenology allows for a low-level analysis of the design of a game; Information Ethics contextualizes the findings of postphenomenology in a high-level theory encompassing systems, agents, and their relations.

This article is divided in six sections: the first section briefly introduces a design vocabulary. The second section presents and discusses the philosophical theories that will be used in the analysis of games. Section 3 presents the case studies. Section 4 performs a postphenomenological analysis of the case studies, while Sect. 5 provides an Information Ethics interpretation of the experience analysis. The paper is closed with a short reflection on the scope and future of this research.

## 8.2 A Brief Design Vocabulary

To analyze the elements of a game design, it is necessary to use a formal, abstract, precise design vocabulary. Designers (Church 2006) and theorists (Bateman and Boon 2006; Järvinen 2008) have addressed the need for a design vocabulary. This article requires concepts that can be easily translated to the philosophical analysis of games. The vocabulary I propose here translates from the actual analysis of a digital game design, to the interpretation of design elements by both postphenomenology and Information Ethics.

From a high-level perspective, a game is a system designed for the interaction of agents with an environment and with each other. These agents intend to achieve

predefined goals by means of interaction methods allowed by the system. Unlike other definitions of games (Suits 1978; Salen and Zimmerman 2003; Juul 2005), I am not taking into consideration player motivation, psychology, or emotions. While games are designed for players, my interest here is to have concepts that allow for the precise description of the game system.

A game system can be described as a state machine (Turing 1937; Audi 1999, pp. 933–934): 'Briefly stated, a state machine is a machine that has an *initial state*, accepts a specific amount of *input events*, changes state in response to inputs using a *state transition function* (i.e., rules), and produces specific outputs using an *output function*' (Juul 2005, p. 61). This vocabulary is based on this premise.

A game has a number of different states, two of which are always present: the initial state, prior to any agent interaction, and the end state, when the game halts. It is important to distinguish the end state of a game from the winning condition: a game like *Grand Theft Auto IV* has a number of winning conditions, but no apparent end state. The player can keep interacting with the system also after all the goals proposed by the game are achieved. The end state is only reached when the player exits the game. In most games, the end state is determined by the winning condition: when we win or lose, the game is over. But some other games decouple winning from ending the game, which leads to ethical and political interpretations: *September 12th* (Newsgaming 2003) bases its moral discourse on the absence of a winning condition.

The game system has a number of properties and attributes that define the different states, as well as the modes of interaction, the winning and losing conditions, and the instructions to change these properties and attributes. These are the rules of the game. A rule determines properties of a state, or any game object, and how it will react to input. Rules can be translated to algorithms (for example, *if (player_life = 0) {player.death()}*), or to constants, variables, and other properties of a state (for example, *player_life = 100*).

In computer games, agency is designed: users interact with the system in predetermined, sanctioned ways. This interaction is mediated through game mechanics, defined as methods for interaction by the agent with the game system. Methods should be understood as an Object Oriented Programming concept: objects have behaviors, which "are contained in *methods,* and you invoke a method by sending a *message* to it" (Weisfeld 2000, p. 13). Methods can be described as verbs (Järvinen 2008, pp. 263), for instance "shoot", or "die".

Playing a game is interacting with a rule-bound, rule-determined system by means of a number of game mechanics. Game designers create these systems, the rules, and the mechanics for interaction. These elements constitute the procedural level of a game (Murray 1998; Bogost 2006, 2007), the elements of the system that describe the computational input and output processes.

Computer games also present what I shall define as a semiotic level (Eco 1979). Game systems, rules and mechanics are communicated to players by means of an audiovisual construct, a game world or, as Juul (2005) defined it, a fiction. It is not my intention here to discuss the ontology of fiction or simulation. By semiotic level I am referring to those elements of the procedural level experienced by the player.

The semiotic level comprises fiction and simulation (Aarseth 2005), as well as metaphors of the procedural level. For instance, a health bar is a visual metaphor of the health property.

When players experience a game, they do so mediated by the semiotic level, but conditioned by the procedural level. Gameplay, or the experience of a game, is the phenomenological process of an epistemic agent interacting with a formal system. Players are epistemic agents because they relate and interpret their experience of the game by using their previous experience as players (Juul 2005, pp. 95–97), and their cultural, ethical, embodied being.[1] A player will play within rules, by game mechanics, in a game world. Game design is the craft of creating interesting procedural levels and communicating them through the semiotics of the game.

## 8.3 What I Talk About When I Talk About Ethics

The goal of this chapter is to formulate a number of questions regarding the relations between morality, ludic experiences, and game design, as well as to provide a philosophical framework that can explain those instances of play in which morality plays a key role.

Let's start with the assumptions. In this chapter I assume that some games can create what I have called an "ethical gameplay experience". With this terminology I am referring to those instances of play in which an agent will take a decision crucial to her progression in the game based on heuristics derived from a moral evaluation of said instance of play. Ethical gameplay should be read here as opposed to instrumental gameplay, or the rational, game-economic decision-making heuristics that can inform many play experiences.[2] I have chosen to define this type of experience as ethical gameplay because, as I will argue, those heuristics can be described from an ethical point of view, leading to potential normative and meta-ethical arguments. That is not, however, the goal of this chapter.

In this chapter I assume that some agents, on particular instances of play, take decisions based on ethical thinking, that is, with a clear idea that a certain choice is *right* or *wrong* not for game-economic purposes (optimization of results) but for moral reasons. Given this assumption, I want to investigate how the design of a

[1] The Method of Abstraction provides a precise approach to this epistemic process: 'In the simulation relation, the epistemic agent is coupling the state evolution of two systems by observing these two systems at two Levels of Abstraction. This means that an epistemic agent tries to construct an equivalence relation between the two systems, seeking to understand at what Level of Abstraction those systems could be considered congruent' (Greco et al. 2005).

[2] Instrumental gameplay should be read here as closely related to the concept of instrumental rationality as understood by the Frankfurt School (Horkheimer and Adorno 1997). Also, this type of instrumental thinking is present in both economic theory and AI research. Simon's work (Simon 1981) provides a classic example of the combination of both. It is not my intention, however, to finely discuss the implications of instrumental rationality in gameplay or in game design.

game can foster this particular types of experiences. Since games are designed technologies, created to engage agents in the activity of play. Games are technologies for the creation of a particular designed experience. Play is not, however, a unified experience – play consists of a complex interrelation of needs, emotions, rational thinking and moral thinking. The question is, how is that experience created by the game understood as designed technology?

First, some terminology needs to be explained. In this chapter, I will often be referring to ethical experiences, ethical technologies, and ethical gameplay. The use of the term "ethical" to modify each of this substantives needs to be explained in detail. By ethical gameplay I am referring to the experience of a game by an agent that takes choices based on moral principles, rather than instrumental ones. In playing games, agents are often encouraged by the design of the game to take choices based on optimization, creating the best strategies that will allow them to reach their goals (by means of in-game rewards, for example). It is in this sense I refer to instrumental gameplay: that experience which is led by the logical, goal-driven and goal-oriented heuristics for decision making. Classic economic game theory was focused on this kind of instrumental play (Heide Smith 2006). Ethical gameplay, on the other hand, substitutes the heuristics of the decision making process from goal-oriented to ethically-oriented ones. Players will take choices based on their morality, and philosophers can understand play as a moral activity by looking at the ethics that justify those actions. For instance, ethical gameplay could be informed, and analyzed, by a number of different values, and therefore Virtue Ethics could be used to understand the experience of play. Or, in other cases, consequentialism can be applied to the understanding of particular solutions to particular dilemmas by computer game players. All those gameplay experiences in which players take choices based on moral assumptions, ideas or values, are examples of ethical gameplay, and are usually identifiable in the way players communicate their experiences in fora, interviews, or game reviews. The gameplay instances I will describe in later sections of this chapter are all designed to create these type of experiences.

In this chapter I will also argue that digital games can be defined as ethical technologies. Again, this wording can be problematic in the context of philosophy of technology – what is it meant by games as technologies? Without going too deep into a discussion that is external to this paper, games as technologies should be understood as the objects created by humans in order to create, explore and experience the activity of play. In this sense, games are technologies of play, designed to foster the playful activity and the experiences central or peripheral to them, from Callois' vertigo (Caillois 2001) to DeKoven's lusory attitude (DeKoven 2002). This interpretation of games as technologies will allow an analysis from traditions closely connected and/or central to the discipline of the philosophy of technology.

The claim that games can be ethical technologies is substantiated on the assumption that no technology is neutral, and that design is not only a way of creating new objects for particular, concrete purposes, but also to inscribe values, politics and behavioral patterns in the very structure of the object. A game, like any

other technology, can embody a moral discourse in its being a technology. A game, as an ethical technology, both embodies values in its design, as affordances, and in the type of experience it pretends to create in the player. The former is exemplified by the design of rules, rewards and other formal subsystems of the game: rules that reward particular sportsmanship, for instance, could be analyzed from a virtue ethics perspective as the reasons why a game can contribute to fostering the good life. The latter is present in games that present players with moral choices, which are then evaluated in terms of either the games' systems (quantized in points, for example), or in the ways the community of players relate to a particular choice.

In summary, computer games, like any games, can be understood as ethical technologies since they are objects designed for aiding and fostering the play activity, and like all technologies, they are non-neutral. The outcome of the play experience as mediated by a game can be of moral nature if the choices taken by the player are based not on an instrumental analysis of the conditions of the dilemma, but on an ethical evaluation of the morality of the potential choices presented by the game. In this sense, then, a game can be considered technology that can create ethical experiences.

## 8.4 (Post)Phenomenology and Computer Games

It is precisely this focus on experiences what makes phenomenology the initial entry point for the investigation carried out in this chapter. While it is not my intention to discuss what phenomenology is, I believe some argumentations as to why phenomenology need to be in place.

Phenomenology is essentially concerned with experiences, or, to put it in a more Heideggerian way, ontology is only possible if understood from the experiences of a being in the world. Even though much work has gone into phenomenology since the early Husserlian days, experience remains a central focus of any phenomenological analysis. What phenomenology does, then, is a "science of the experience": it approaches systematically ontological questions using a method that starts from the being in the world and the perception of that world, and through phenomenological reductions concludes valid arguments about the ontology of said experience (Heidegger 1988; Merleau-Ponty 2002).

The reason why phenomenology is an interesting starting point for the study of the morality of computer game design is its methodology. Phenomenology allows for the analysis of a experience, in this case one in which moral reasoning is triggered by certain game design decisions, and from that analysis it is possible to extract valid knowledge about the nature of the object that created that experience. Furthermore, in more contemporary works, phenomenology has been understood as a multidisciplinary approach, one that can help understand the interconnections between philosophy, the natural and the social sciences, and other domains of knowledge and science. In this sense, it is worth noticing that computer games are complex objects that create experiences, but are also technologically bound to

the limits of computation, as well as to the social context(s) in which play occurs. Only an analysis that can potentially take into consideration the technical and the social aspects of games, as well as their nature as systems for creating play, can be useful. This also implies that for studying computer games it should be a requirement to at least understand the fundamental technical basis of computing.

Phenomenology is then an interesting entry point because it allows the thinker to make ontological claims starting from experiences. The experience of a particular technology, then, can give us insights on the nature of that technology. Phenomenology's interest in technology can be traced back at least to Heidegger's reflections on "modern technology" (Heidegger 1977). Artifacts demand the attention of phenomenology since they mediate the experience of the world. Phenomenology "resembles an empirical science. It is 'empirical' in the sense that is observational in the first instance; it is 'scientific' in that its interest is in the structure of a given phenomenon; and it is 'psychological' in that its primary field is which occurs within experience".

Ihde's contribution to phenomenology, defined as "postphenomenology", is his focus on the specific relations between humans and technologies, and how those configure the experience of the world. Even though much of Ihde's work is based on Heidegger's take, his reading of Heidegger (Ihde 1993) provides not only an appropriate critique of Heidegger's work, but also a way of phenomenologically approaching technologies in a more productive way. Ihde's postphenomenology is a systematic approach to technologies and the different types of relations that are established with humans, therefore bringing technology to focus together with humans, as part of their experience of the world.

Essentially, the focus on understanding the relations between human and world, and the technologies that mediate, facilitate or impede them, allow postphenomenology to move beyond the classic dichotomy between realism and idealism. Ihde's contribution is the claim that subject and object, human and world (and technology) constitute each other. The limiting element with regards to this article's goal in Ihde's classical works has been the exclusive focus on the human, leaving aside how a *designed* object should also be closely looked at. In other words, Ihde ignores the role of design as a discipline in the way the technologies shape the relation of humans and the world. Therefore, Peter-Paul Verbeek's interpretation of postphenomenology, still very much based on Ihde's work, yet significantly focused on the design of the object, is much more appropriate for the understanding of computer games.

Verbeek's postphenomenology builds on many of the concepts of Ihde, and as such it is clearly a disciple's extension of the theory. What makes it particularly relevant for this chapter is the way Verbeek appropriates the concept of technological intentionality (objects are not neutral, they have "an inclination or trajectory that shapes the ways in which they are used" (Verbeek 2005, p. 114)) with the practices of design. Verbeek traces, though not explores, a certain archeology of design, a process of tying together the experience created through an object with the actual practices and goals of designing that object. In this chapter I will appropriate postphenomenology in order to develop a certain approach to understanding how

games create ethical experiences, and how those experiences can be tied to elements in the design. But, for that, I need to locate games in the context of phenomenology.

Computer games can "be understood phenomenologically, i.e., as belonging in different ways to our experience and use of technologies, as a human-technology relation, rather than abstractly conceiving of them as mere objects" (Ihde 1993, p. 34). Playing is experiencing through the technology of computer games. Games are tools for play: "when somebody uses a tool or piece of equipment, a referential structure comes about in which the object produced, the material out of which it is made, the future user, and the environment in which it has a place are related to each other" (Verbeek 2005, p. 79). In this article, I focus on what Verbeek calls the "material", the way the game is designed for interaction, and how that design predicts a type of experience. It is precisely this focus on the *material* what allows for a connection with design practices and experiences, and therefore postphenomenology is the most relevant take on the philosophy of technology for those of us interested in understanding how design creates experiences in users.

To understand this connection between design and experience, Verbeek's application of the postphenomenological method to industrial design practices (Verbeek 2005), becomes a relevant framework. It is so because it emphasizes "that subject and object *constitute* each other. Not only are they intertwined, but they coshape one another" (Verbeek 2005, p. 112). When playing a game, we become players, agents whose actions are conditioned by the procedural level of the game and the interpretation of the semiotic level. Even though classic economics would argue otherwise, recent relevant studies (Smith 2006) show that players take choices for other reasons than optimizing results. There is a certain beauty in play, as well as a level of morality and ethical thinking. Playing is a co-creative experience. Players actively participate in the configuration of the ludic experience, based on the formal framework provided by the game, which is appropriated in the particular contexts of the play situation. The design of the game crafts the procedural and semiotic levels into processes that would optimally create an intended[3] array of experiences. In other words: the design of a game could be used to encourage the creation of situations in which ethical gameplay, or ethical experiences, are a reasonable foreseen outcome.

The analysis of *computer games* in terms of their ethical design is possible because "designers engage in 'ethics by other means'; that is, their products codetermine the outcome of moral considerations, which in turn determine human action (...)" (Verbeek 2005, p. 212). Any such analysis will make use of postphenomenology's classifications of the relations between human beings and artifacts.[4] These human-technology relations are the basis for the analysis of how games are ethical technologies, since designed products play a mediating role in the

[3] In fact, Ihde and Verbeek describe the mediation of artifacts "in terms of (...) *technological intentionality*" (Verbeek 2005, p. 114).

[4] See Verbeek (2005, pp. 122–128).

moral considerations of people, and [. . .] the design process can involve moral choices with reference to this mediating roles (Verbeek 2005, p. 217). My analysis will focus on the latter, mapping specific game design decisions to an ethical stance projected to the player experience. The goal with this move is to backtrack from the experience of a game a number of design elements that can be ascribed the role of primary generators of a particular, situated type of ludic experience, an ethical gameplay experience. This experience is situated because it takes place in the context of a particular play session by a particular agent. These design elements will be described using postphenomenology's account for the different relations between humans and technologies. This move will disclose (Brey 2000a, b) the design of a game as a moral technology.

A postphenomenological analysis of the experience of the world through technology has to be understood in relational terms, that is, typifying the different modalities of mediation and experience created by technologies as experiences (Ihde 1990, p. 25). These relations are classified in three major types: relations of mediation, in which "we are not directly related to the world but only are so via an artifact (. . .)"; relations of alterity, "a relation not via an artifact to the world, but to an artifact itself (. . .)"; and background relations, "in which technological artifacts shape our relation to reality but do so by remaining in the background" (Verbeek 2005, p. 123). Games as technologies present different types of modalities of mediation, depending on the design's intention. In these examples, game design uses its technological resources (mechanics, rules and semiotics) to create different types of experiences.

As much as (post)phenomenology is a valid analytic tool for understanding the ethical implications of games as designed technologies, it is not a theory powerful enough to overcome some controversial shortcomings. Phenomenology does not have, for instance, a strong model of the human agent as moral being. In order to have a more complete understanding of how game design models experiences we also need a better understanding of players as moral agents. Phenomenology does not provide this insights. This implies too that it is not always possible to apply ethical theories, such as virtue ethics, to phenomenological approaches, since these theories require a moral agent. It is possible, though, to start the analysis from a certain ethical theory, and provide evidence through the phenomenological method. In this chapter, however, I have opted for a different model.

The initial analysis of any design structure in a game and its possible ethical implications has to be derived from a moral reading of the experience of the game. By applying a postphenomenological understanding of the relations of the player with the technological device, it is possible to establish the way in which this experience is created or, in other words, from which elements of the design the experience comes from. In other words: play is understood here as an experience that can be described, systematized and analyzed by means of the postphenomenological theory. This approach will give the research insights on what play may mean, and, more importantly, how a particular technology, in this case the computer game, focuses, constraints and affords the experience of play. Postphenomenology will

not take the analysis further than the relation between a experience and the technology that shapes it, but for an understanding of play as an ethical experience from a design perspective, this philosophical theory provides the arguments needed to access play as the starting point of the philosophical analysis of game design.

This initial analysis needs to be complemented with a high-level theory that incorporates these observations in an ontology and ethics that allow both for the understanding of the specificities of technology and its design and how they affect morality and ethical theory, and a solid moral anthropology that can be used to explain the morality of computer game players. This high-level theory is the Philosophy of Information.

## 8.5 Computer Games and the Philosophy of Information

Computer games are complex technologies due to their dual procedural/semiotic nature. I have suggested that the postphenomenological method can help understand how computer games as designed artifacts create experiences with ethical content. However, this approach only explains how game design operates. Nevertheless, postphenomenology only provides an understanding of the relations between objects, design, and users. It allows us to formalize the intentions of design with plausible user experiences, yet it does not provide an ethical framework.[5] Postphenomenology is a low-level approach to the basic question of ethics and game design. We understand how games operate, but we lack an overview on how games *are* ethical technologies.

Information Ethics will provide that overview, adopting the formal design vocabulary, and the result of the postphenomenological analysis, translating it into more general principles that account for the ontology of the game as system and the player as epistemic agent. In other words: through phenomenology we understand play and its relation with technology in particular instances; with Information Ethics we are able of formulating a comprehensive theoretical framework that situates the ethics of designed game systems in the larger context of ontological and ethical theories. Postphenomenology provides the description of the event, Information Ethics provides the general framework in which that event can be systematized and analyzed.

Information Ethics, as defined by Floridi, is based on the Philosophy of Information. In Floridi's terms, the Philosophy of Information is "the philosophical field concerned with (a) the critical investigation of the conceptual nature and basic principles of information, including its dynamics, utilisation, and sciences, and (b) the evaluation and application of information-theoretic and computational

[5] Verbeek (2000, pp. 212–219) provides a critical overview of ethics and postphenomenology.

methodologies to philosophical problems". This focus on information (Wiener 1965) provides the Philosophy of Information with "one of the most powerful conceptual vocabularies ever devised in philosophy (...) because we can rely on information concepts whenever a complete understanding of some series of events is unavailable or unnecessary for providing an explanation. In philosophy, this means that virtual any issue can be rephrased in informational terms".

This informational ontology is explained through two fundamental concepts, and a method. The first concept is infosphere, understood as "the environment constituted by the totality of information entities – including all agents- processes, their properties and mutual relations" (Both Floridi 2003a, 2003b). Floridi argues that 'infosphere' can be used to describe the totality of Being from an informational perspective. As such, it is the cornerstone of his Philosophy of Information.

The infosphere should be understood as an environment of informational agents, patients, and their mutual relations. Infosphere delimits an ecosystem composed by informational agents, threaded by the methods with which they relate to each other – not only communicating, but also constituting each other. This co-constitution is similar to those relations between objects and humans described by postphenomenology. For example, a server is an infosphere, but also *Liberty City* in *GTA IV*, as well as New York City understood as the model from which Liberty City is created. All of those are infospheres. However, the Philosophy of Information will argue that the infosphere is the whole of existence, since the being is information. What these other infosphere are could be understood as mere instantiations of particular informational environments where it is not the totality of being which is being invoked, but only a partiality of it. In other words, a game is a limited, enclosed infosphere, within the larger infosphere of the world. The important element of this affirmation, for a philosophy of design, is that it allows an analysis of the design from an informational perspective, looking at the elements that connect both infospheres: what is kept, what is left out, and how agents relate within both ontological contexts.

The second key concept is informational agency, extended beyond anthropo-and-bio-centric approaches, and including any type of relevant agent in the infosphere, defining agent as "an *interactive*, *autonomous* and *adaptable transition system*". This definition of agency allows for the inclusion of artificial agents in the ontological domain, including software like virus or adaptive software systems (Floridi and Sanders 2004).

Both the infosphere concept and the notion of informational agency can be used to overcome the analytical problems of a (post)phenomenological reading of computer games. By having a clear agency model, and a way of systematizing design analysis through the notion of infosphere, it is possible to qualify the research on the computer game as designed object within the philosophical domain of technology studies, and particularly within the Philosophy of Information. However, in order to validate the interpretation of the (post)phenomenological results of a certain analysis of a game experience, a method is required. The Philosophy of Information provides such a method.

The method of the Philosophy of Information, the Method of Abstraction, is based on Object-Oriented Programming concepts.[6] To understand the ontology of information, agents and patients should be treated as informational objects with methods, properties, and interactions (Floridi and Sanders 2004). In terms of analysis, the infosphere has to be approached from a certain Level of Abstraction. This term, originally defined by computer science, is understood as a finite but non-empty set of observables. No order is assigned to the observables, which are expected to be the building blocks in a theory characterized by their very definition (Floridi and Sanders 2004, p. 10). In more approachable terms, the postphenomenological analysis operates within a Level of Abstraction. A postphenomenological analysis consists on selecting some elements form the game, both structural (formal) and agentive, and their relations. This selection provides an initial insight into how the game operates as an ethical technology. It is then that the results from the postphenomenological analysis should be modeled using Information Ethics methods, so it is possible to describe their informational being and configuration.[7]

The most relevant outcome of this informational approach has been the formalization of an Information Ethics, an "*ontocentric*, *patient-oriented*, *ecological* macroethics". Since it is based on the informational ontology of the Philosophy of Information, "the ethical discourse now comes to concern information as such, that is not just all persons, their cultivation, well-being and social interactions, not just animals, plants and their proper natural life, but also anything that exists, from paintings and books to stars and stones; anything that may or will exists, like future generations; and anything that was but is no more, like our ancestors" (Floridi 1999, p. 43). Also, Information Ethics takes a clear constructivist approach: "ethics is not only a question of dealing morally well with a given world. It is also a question of constructing the world, improving its nature and shaping its development in the right way" (Floridi and Sanders 2005, p. 2).

Information Ethics is a very abstract and somewhat verbose ethical theory. It's main strengths lie on the strong methodology that allows for the ethical scrutiny of agents, technologies and patients in the context of information systems. However, it can be complicated to understand how this method can be applied. Let's illustrate it with an example: a virtual world game like *World of Warcraft* is a highly complex human-technology construct. The game itself can be understood as an infosphere, and any approach to analysis will require to delimit a gradient of abstractions. For instance, studying player vs. player games would set a gradient of abstraction within the infosphere of the game. Within that gradient, in order to answer a particular question, the information ethicist needs to delimit a level of abstraction.

[6] Weisfeld (2000) is an approachable introduction to the basic concepts and arguments of Object Oriented Programming.

[7] "Models are the outcome of the analysis of a system, developed at some LoA(s) for some purpose. An important contribution of these ideas is to make precise the commitment to a LoA (. . .) before further elaborating a theory. We call this the *method of abstraction*" (Floridi and Sanders 2004, p. 17).

For instance, analyzing the honor system would require to set a Level of Abstraction in which players are a part of the analysis, while artificial agents are not. That Level of Abstraction can also include technical elements: studying player vs. player games played over the internet can benefit from incorporating some material analysis to the reflection, for instance the server-client structure or the ways in which designers cope with the inevitable latency between actions. So, the particular Level of Abstraction in which the honor system can be analyzed from a philosophical perspective consists of human agents, the network code that facilitates the exchange of information, and the designed game mechanics that mediate the interaction between players in the particular context of a player vs. player battle. In sum, a level of abstraction should be understood as the particular elements of a larger, complex construct that have to be taken into consideration to analyze a particular question – and it's theoretical power comes from the capacity for including, in the same level of abstraction, human and non-human agents, as well as technical elements.

Summarizing, the relevance of Information Ethics for the purpose of this article stems from its object oriented ontology,[8] and its constructivist nature. Since the basic methodology and terminology are based in Object Oriented Programming, it can be directly applied to an analysis of design as rules, mechanics and systems designed to create specific experiences in agents. It is possible, then, to adapt the postphenomenological analysis to an Information Ethics framework.

Information Ethics offers a strong model of agency, one that not only includes software agents as morally relevant (an approach I will not take in this article), but also defines the ethical duties of these agents. Using the concept of *homo poieticus*, understood as the agent that "concentrates not merely on the final result, but on the dynamic, on-going process through which the result is achieved" (Floridi and Sanders 2005, p. 18), I will define the role of players as agents that experience a design intended to create a number of ethical experiences. Players are agents that have the responsibility of engaging ethically in their experience of the game as infosphere.[9]

From an Information Ethics perspective, then, two elements determine the nature of computer games as ethical technologies: (a) the design of the system, understood as the properties and methods for agent interaction within and with the game as infosphere; and (b) the possibilities for players' creative stewardship to be applied in the context of the game experience, as determined by the methods available to agents and how these are interpreted. Information Ethics focuses on the design of the infosphere and the afforded capacities of the player as epistemic agent.

[8] "Instead of limiting the analysis to (veridical) semiotic contents (. . .) an ecological approach to Information Ethics looks at information from an object-oriented perspective and treats it as entity. In other words, we move from a (broadly constructed) epistemological conception of Information Ethics to one which is typically ontological".

[9] "Like demiurges, we have 'ecopoietic' responsibilities towards the whole infosphere. Information Ethics is an ethics addressed not just to 'users' of the world but also to producers who are 'divinely' responsible for its creation and well-being. It is an ethics of *creative stewardship* (. . .)".

The application of Information Ethics to the analysis of game design defines some aspects of games as ethical technologies: computer games are informational systems where agents interact by means of a procedural system which is communicated to them (or embedded) in a semiotic system. Agents interact by means of creating Levels of Abstraction for their experience, usually encapsulating the procedural in the semiotic. Games as ethical technologies can use this process to develop interesting ethical experiences. Conventional game design and software usability theories claim that it is required for players/users to have as much unambiguous information about the system's operational procedures as possible. However, in games that would translate to the creation of semiotic elements that translate directly the ethical evaluation of a situation that is hardcoded in the procedural level of the game. If a design does so, it is effectively reducing the role of the player as moral agent, since the player will not need to use her own moral skills to navigate the ethical dilemma. Any decision regarding the potential ethical outcome of a particular design decision should always have in mind that players are moral agents, and that this agency needs to be respected by the very design of the system, but also of the semiotic elements used to translate that system into a coherent set of metaphors that players can understand in order to interact with the game in an autonomous way.

Information Ethics also provides a framework for the understanding of players as ethical agents. Game design is the art of translating the skills and interests of players into original, accessible challenges. The concepts of epistemic agent and creative stewardship suggest how to design ethical experiences with computer games. The *homo poieticus* described by Floridi and Sanders is a powerful anthropology that overcomes Huizinga's *homo ludens*,[10] and places ethical responsibility and capacities as part of the players skills.

Finally, Information Ethics describes those instances in which game design can create unethical experiences. When a computer game is designed with rules that evaluate values, and that evaluation is not directly communicated to players, then the game design is unethical. A computer game must always inform players of their state according to those rules. Otherwise, players are partially deprived of their creative stewardship, of what makes them ethical players.

Computer games as ethical technologies should be defined according to how the game system, understood as a procedural and semiotic informational object, relates and engages agents in value-based gameplay. These values can be afforded by players, but can also be an outcome of the different configurations of rules and methods in the game world. Game systems can, and ought to incorporate in their design the idea of an ethical epistemic agent that will interpret the actions, both in the procedural and in the semiotic Level of Abstraction, as ethical experiences. Playing is engaging in a creative experiential process with a system that can be designed to challenge ethical skills.

[10] See for a brief comparison between both anthropologies.

## 8.6 Playing Values: *Bioshock* and *Grand Theft Auto IV*

Given the design vocabulary and philosophical framework I have described, I will now analyze two games, focusing on how their designs create ethical experiences. I focus on specific design decisions that illustrate why games can be described as ethical technologies. *Bioshock* illustrates the relation between game design and player ethical agency. *Grand Theft Auto IV* exemplifies how players as reflective, epistemic agents, can be challenged by means of design.

In *Bioshock*, a First Person Shooter game, players control a character named 'Jack', who survived a plane crash in the middle of the ocean only to find the entry to a strange underwater city, Rapture. It is fair to say that Rapture and its denizes are the true protagonists of *Bioshock*: founded by the objectivist engineer Andrew Ryan, Rapture is a marvel of technology and free market, the promised land for those chosen by Ryan as examples of humanity's finest.

Utopias don't last long: soon social differences and clashes began. A powerful network of smugglers commanded by Frank Fontaine, challenged Ryan until he ordered the death of Fontaine. Fontaine's death is coincidental with the rise of Atlas, a mysterious character who commanded the lower classes to a war against Ryan and his elite. Rapture is torn by a civil war and misguided genetic experiments that turned its population into psychopaths. This is the "dream" Jack encounters.

Atlas soon contacts Jack, encouraging him to destroy Ryan's defenses, and kill him. While the player explores Rapture following Atlas' instructions, more and more information about the actual reasons behind this conflict are exposed: there are no innocents, but maybe Ryan does not deserve death. Yet, when confronted with Ryan, the plot unfolds: Jack is a puppet controlled by Atlas/Fontaine. Jack is Fontaine's secret weapon: he implanted a behavioral conditioning pattern in Jack that makes him follow any order Atlas gives. Throughout the game, Jack has been controlled by Fontaine/Atlas. In a dramatic sequence, the player loses direct control over the character and we are forced to see how Jack kills Ryan. This plot twist exemplifies the use of game design to create ethical experiences.

The other element has to do with the alleged ethical gameplay design of the game. Genetic modification in Rapture is based on a type of stem cells called ADAM. These cells are harvested by little girls, who are hosts of a type of slug that enables them to recollect of ADAM from the dead at the expense of becoming zombies. Since these cells are a valuable resource in the war-driven rapture, the Little Sisters are escorted by Big Daddies, huge biomechanical beings, once human, now beasts that will protect the Little Sisters.

Soon after accessing Rapture, Jack begins using ADAM. But ADAM is only available from Little Sisters. Jack will be encouraged to kill the Big Daddy, and face a moral decision: will he let the Little Sister live, extract the slug, and free her, or will he kill her and harvest the ADAM? If he does the former, a character that protects the Little Sisters will eventually reward him with ADAM. Choosing to kill only one Little Sister will lead to a different ending sequence to the game.

Let's analyze these two gameplay situations from a design perspective. In the case of the Little Sisters ethical dilemma, players are confronted with a direct choice. This choice is presented with an onscreen message: the button X means harvesting (the ADAM, killing the Little Sister), while pressing Y will rescue her. In formal terms, the player has two different mechanics, harvest and rescue. These two methods send different messages to the rule system: if the player harvests, then she will be rewarded with x amount of ADAM, and the ending sequence will be tragic. If the player rescues, then she will not receive any ADAM. But, if the player has rescued some Little Sisters on a row, then some ADAM will be deployed in a nearby location. Additionally, a rule evaluates the number of Little Sisters rescued: if the player does not harvest any Little Sister, then the end sequence will be positive.

From a purely formal perspective, the Little Sisters ethical dilemma consists of two basic methods that have impact on player agency. From a semiotic point of view, players are faced with harmless little girls who are scared of the player. Yet, the narrative of the game has portrayed Little Sisters as zombified hosts for a slug. Besides, ADAM is necessary to progress and survive in Rapture. The player will take decisions based both on her understanding of the procedural elements of the game, and on her interpretation of the semiotic level.

In the case of the mind control sequence, players are devoid of any direct control over their actions. From a formal perspective, the player does not have any methods available. From a semiotic perspective, players will realize how all their actions have been guided by the same mind control. The semiotic level is suggesting players to revisit their previous interaction with the game in light of their current disempowerment. The mind control sequence operates in hindsight, contextualizing the semiotics of the otherwise rather conventional procedural level of the game.[11]

*Grand Theft Auto IV* has succumbed too to the inclusion of ethical decision making in the game design: one of the earliest missions faces the player with a life or death choice. The outcome of that mission will influence the evolution of the narrative. This design element is similar to that of the Little Sisters in *Bioshock*. *Grand Theft Auto IV* is ethically interesting for a different design choice, one that brings to scene the meaning of actions and characters in the game world.

Niko Bellic, a serbian expatriate, army veteran and seasoned criminal, arrives to Liberty City in search of the American Dream. Niko wants to leave his past behind, and enjoy the promises of hard earned success that his cousin, a long time US resident, has narrated to him. As players, we soon gain control over Niko. Shortly after, we discover that there is no American Dream, and that our trip to Liberty City will be the return of Niko to the underworld.

*Grand Theft Auto IV* pays special attention to both character design and game world design. Niko is an ambiguous character. He traveled to Liberty City to begin anew, but also with the faint hope of finding someone for revenge. Niko does not like his sudden involvement with the criminal life of Liberty City: he may be losing his soul where he expects to find it.

[11] I deem the design as conventional, since it does not innovate any element of the First Person Shooters genre.

*Grand Theft Auto IV* creates a duality between gameplay progression and character progression. When playing the game, there are two gameplay modalities: following the story line, completing missions that open up new branches of the narrative; or freely exploring the game world. From a design perspective, players use the same mechanics on both modalities, and only the semiotic level that varies. In more formal terms: Liberty City is a game world with rules; within that game world it is possible to engage in different activities, following different mechanics, that have specific rules.

What makes *Grand Theft Auto IV* interesting is the tension between Niko's character and the actions the gameplay forces on players. Niko dislikes the man he is becoming in Liberty City. But as players, we have to guide him in the downward spiral of crime if we want to make the narrative progress. *Grand Theft Auto IV* places the player in the role of driving a character, against his wishes, to the darkest areas of his soul.

If we want to play the game and enjoy the narrative and the game world, we have to fulfill Niko's destiny by character, and commit crimes, offenses not only against society, but also against himself.

*Bioshock* and *Grand Theft Auto IV* provide good examples for understanding computer games as ethical technologies. Games are systems designed for player interaction, with the intention of creating a ludic experience. To understand the implications of games as ethical technologies, and to analyze the ways these design systems operate, we need to understand how games mediate values in their design. In the next section, the first step of this process will be conducted by applying postphenomenology to the analysis of *Bioshock* and *Grand Theft Auto IV*.

## 8.7 Ethics by Ludic Means

In the cases I have presented in the previous section, games as technologies present different types of modalities of mediation, depending on the design's intention. In these examples, game design uses its technological resources (mechanics, rules and semiotics) to create different types of experiences.

Let's start with the Little Sisters from *Bioshock*. From a formal perspective, we have a choice between two basic mechanics, harvesting and rescuing. This choice is then evaluated by the game rules, producing different outcomes depending on the player's choices. The game is designed to interpret the values of the player, and react to them: rules calculate the values of the players, and react accordingly, modifying the semiotic level of the game (in this case, affecting the narrative). In postphenomenological terms, this is a hermeneutic relation, in which the artifact "provides a *representation* of the world, which requires interpretation in order to import something to us about it (. . .) the artifact must be 'read'" (Verbeek 2005, p. 126). The mechanics are evaluated, i.e. interpreted by the game rules, modifying the game world. Hermeneutic relations are schematized as follows (*ibid*):

I → (technology-world)

Or, in game design terms:

Player → (methods/rules-game world)

This relation implies a dominance of the procedural over the configuration of the semiotic: rules determine how methods change the meaning of the game world. Hermeneutic relations are popular in the design of ethical dilemmas: they can be found in games like *Knights of the Old Republic* (Bioware 2003) or *Fable* (Lionhead Studios 2004). This type of ethical design is characterized by affording mechanics to players that will change the configuration of the game world. From a design perspective, the choice of a mechanic is evaluated by a set of rules, which modify the state of the game world.

A different relation is established in *Bioshock*'s mind-control sequence. Instead of affording mechanics for players to take choices, this sequence deprives players of direct agency. The game forces players to spectate while the system, using the same mechanics available to the player, dramatically interacts with the game world. In this sequence, the game as artifact controls the player agency to interact with the world, in an example of an embodiment relation (Verbeek 2005, p. 125).

My interpretation of the embodiment relation, though, is different from classic postphenomenology, where technology expanded agency. I look at embodiment relations from an agency perspective, regardless of the outcome of that relation. That is, I understand that an embodiment relation unifies agency and artifact in the interaction with the world. That unification does not need to expand agency. Embodiment relations are schematized as follows:

(I – technology) → world

Or, in game design terms,

(player – game system/game character design) → game world[12]

Many games use this type of relation: for instance, cutscenes or cinematic sequences with a plotted set of events coherent with the previous use of game mechanics, in which players do not have the possibility of modifying the predetermined outcome of that sequence. Another, more subtle use of this embodiment relation, forces players into empathizing with the values of a character they are in disagreement with. This is a technique present in *Grand Theft Auto IV* as well.

Niko Bellic, the main character in *Grand Theft Auto IV*, is introduced as a tormented soul trying to avoid his own destiny. By using the conventions of the embodiment relation, the game presents Niko as a character with values, wisdom, and personality. In many computer games, the connection between events that use

[12] By game character design I am referring here to those elements of the semiotic level that describe the personality of the character the player will command.

embodiment relations, and the rest of the game experience, are often coherent: the character is reinforced by game mechanics (what we do) and game rules (being rewarded for acting as we are supposed to do). This match constitutes the fabric of interactive heroism in computer games.

*Grand Theft Auto IV* modifies this match. When players interact with the game, they are forced to do what Niko, the character, despises. There is a tension between the semiotic and the procedural: actions contradict the volition of the artificial agent, and players are cued to reflect upon these processes. The tension is created by the design of the mechanics afforded to the player and the rules that evaluate them.

Niko regrets violence and crime, yet the actions we have to take in the game, if we want to progress, are criminal. Most of the mechanics concern crime, and there are strict rules that remind us that these are crimes: for example, carjacking is a mechanic that, if invoked close to a police car, will trigger the system to send police agents to arrest us. Postphenomenology defines these type of relations as alterity relations, in which "technology (...) appears as quasi-other" (Verbeek 2005, p. 127), and schematizes them as follows (*ibid*):

I → technology (-world)

Which translates in game design terms to:

Player → game mechanics/rules (-game world)

How does this relation operate in *Grand Theft Auto IV*, in connection with the embodiment relation? In alterity relations, artifacts abstract the world, and users experience directly the technology. In my game design interpretation, alterity relations imply the abstraction of the semiotic level so players experience the procedural level as dominant. In *Grand Theft Auto IV*, the semiotic level states that Niko dislikes the man he was, his past crimes. But when playing the game, that level is abstracted in favor of the procedural: missions have to be accomplished by interacting with the game system using the afforded mechanics. A relevant part of the semiotics of the game world is abstracted to create a tension between action and reflection. In other words, the cutscenes suggest an embodiment relation, but the actual gameplay primes alterity relations.

Niko is a man whose character becomes his destiny. This prophecy is fulfilled, in terms of game design, by juxtaposing two different postphenomenological relations. The embodiment relation prioritizes the semiotic level of the game, while the alterity relation focuses on the procedures to play the game. It will be the player who has to reflect about the ethics of actions in the game world. Niko, as a Dionysian character, is a tragic hero because his will is beyond his control. Only now it is we, players, the controlling divinities.

Postphenomenology is a valid approach for identifying how specific design decisions create particular experiential relations with players. However, once this relations are identified, a better ethical theory is needed in order to understand how these design decisions project morality-based experiences in the users. Information Ethics will provide such an explanation.

## 8.8 Games Are a Matter of Information (Ethics)

When applying Information Ethics to the postphenomenological description of game design, we can provide some notions on the ethics of game design and, by extension, of games as ethical technologies.

In the case of *Grand Theft Auto IV*, players are placed in a tension between the game world and their agency. When playing, we often resolve to some notion of Level of Abstraction in order to make sense of the gameplay experience (Juul 2007). *Grand Theft Auto IV* uses this technique to construct a game system in which the player's goals are different from those stated by the main character, when that character retains agency. As spectators of *Grand Theft Auto IV*, players in a Level of Abstraction devoid of any procedural agency (non-interactive cutscenes), that nevertheless modifies their perception of the semiotic level, their understanding of the game world and its characters. When players get to know Niko Bellic, the dominant Level of Abstraction is semiotic. But when playing, that is, when players are granted access to the procedural system, they are operating in a Level of Abstraction in which they can interact with the world. This interaction, as afforded by the game rules and mechanics, establishes a contradiction with our previous experience of Niko. The system is designed to juxtapose the semiotic and the procedural layers: Niko does not want violence, but as players, our only methods for the story to progress are violence and crime. In this tension, *Grand Theft Auto IV* is constructed as an ethical game design.

In more general terms, a game can create an ethical experience by modifying the Levels of Abstraction through which the player engages in gameplay. The procedural level takes care of rules and mechanics, the meaning of which is provided by the semiotic level. Oftentimes, both are deeply and logically interconnected: the semiotics show the player how to play, and what the state of the game is. But if the design creates an ethical tension between them, then the game will configure itself as a moral experience, where the player as *homo poieticus* will be challenged to complete the meaning of the game and interact with it.

*Bioshock*'s mental control sequence appeals to the player as epistemic agent not by means of the methods for agency in the game world, but actually by depriving the player of any agency, and forcing her to reflect about the gameplay sequence thus far. When players are deprived of control over their avatar in the game, they are temporarily forced out of their creative stewardship: they cannot influence their presence in the game world by means of mechanics. Yet, players are forced to reflect on the meaning of their actions by the narrative of the game.

In any other type of software system, depriving agents of their capacities within the system can create ethical harm, according to Information Ethics. But in computer games, this technique can be a trope. Players are agents capable of relating to the meaning and value of their actions. In *Bioshock*, this capacity is put to test when we are first deprived of our agency, of what makes us players, only to be told that all of our past actions were a lie. In fact, all of our actions were contrary to the values inspired by the semiotic level. This trope shows how games, by means of design, involve players in the creation of an experience with ethical meaning.

Nevertheless, Information Ethics also shows that there are risks in the inclusion of ethics in the design of a game infosphere. That is the case of the Little Sisters dilemmas in *Bioshock*. In the previous examples, the procedural and semiotic layers were meant to interact with an epistemic agent. Ultimately, the ethical interpretation of the game experience lies in that agent, the player. But in the case of the Little Sisters, it is the system that carries the ethical reasoning, effectively turning the game design into a system for evaluating the values of the player. If the player consistently chooses the "rescue" method, then the system will output a "positive" ending, while choosing the "harvest" mechanic will output the opposite ending. The game has rules for ethical values.

Returning to postphenomenological terminology, this type of relation was defined as a hermeneutic relation: the game system is designed to interpret the players' values and change states accordingly. These types of designs, from an Information Ethics perspective, could be defined as unethical. The player is deprived of her epistemic capacities, which are incorporated in the game system. It is not the agent's ethical capacities what measures the values of the game experience, but a set of properties designed to evaluate the messages sent by the players in order to change the game state. This change is triggered by the values the player wants to incorporate to her experience, but the evaluation is placed in the rules, which determine the values of that choice. In this way, players are deprived of their moral agency, understood as the capacity to develop a moral sense of what is right and wrong. If players cannot become and act as ethical agents, then this design choice ought to be defined as an unethical design.

Hermeneutical relations are not necessarily unethical. As long as it is the agent who has to apply ethical thinking to interpret the game experience, then choices can be designed as hermeneutic relations. If the procedural level of the game is going to evaluate the players' actions based on predetermined understanding of values, then the semiotic level should communicate to players their ethical state according to those properties. In *Bioshock*, the game world does not change depending on the choices of the player, until the end of the game. Like K in Kafka's *The Process*, we have been judged and convicted, yet we don't know what our crime actually is.

Information Ethics, thanks to its formalized method and conceptual architecture, allows for the understanding of different design structures as morally relevant, provided the experiential analysis of postphenomenology. Starting from a clear description of how games attempt to create particular types of experiences, Information Ethics can be applied to those experiences in order to make an ethical analysis of the design elements that constitute them, while respecting both the moral agency of players, and the nature of digital games as informational systems.

## 8.9 Conclusions

In this article I have introduced a philosophical approach to digital games understood as ethical technologies. I have analyzed several popular, commercial games from a dual perspective: postphenomenology offered a low-level approach to the

actual design of a game as experienced by an (ideal) player; while Information Ethics interpreted these analysis from a high-level perspective.

With this article, I have:

- Provided a framework for analyzing game design from both an experiential and an ethical perspective, allowing for the reflection on particular design/technological decisions as origins of potential player experiences.
- Argued for the application of two distinct philosophical theories to the study of game design.
- Justified why computer games could be considered ethical technologies, therefore opening the possibility of studying the design of games from a moral theory angle.

This article is an introduction to the study of the ethics of game design. This work could ideally allow for a better understanding of the expressive potential of computer games. In this article, I have barely introduced this perspective. Yet, there are sufficient arguments to consider digital games capable of creating complex, engaging, challenging ethical experiences. It is now our responsibility to live up to this promise and dare to play ethically.

## References – Literature

Aarseth, Espen. 2005. Doors and perception: Fiction vs. simulation in games. Paper presented at the Digital Arts and Culture, IT University of Copenhagen, Copenhagen.

Anderson, Craig A., and Brad J. Bushman. 2001. Effects of violent video games on aggressive behavior, aggressive cognition, aggressive affect, psychological arousal, and prosocial behavior: A meta-analytic review of the scientific literature. *Psychological Science* 12(5): 353–359.

Anderson, Craig A., and Karen E. Dill. 2000. Video games and aggressive thoughts, feelings and behavior in the laboratory and in life. *Journal of Personality and Social Psychology* 78(4): 772–790.

Audi, Robert (ed.). 1999. *The Cambridge dictionary of philosophy*, 2nd ed. Cambridge: University of Cambridge Press.

Bateman, Chris, and Richard Boon. 2006. *XXI century game design*. Hingham: Charles River Media.

Bogost, Ian. 2006. *Unit operations. An approach to videogame criticism*. Cambridge, MA: The MIT Press.

Bogost, Ian. 2007. *Persuasive games*. Cambridge, MA: The MIT Press.

Brey, Philip. 2000a. Method in computer ethics: Towards a multi-level interdisciplinary approach. *Ethics and Information Technology* 2(3): 1–5.

Brey, Philip. 2000b. Disclosive computer ethics. *Computers and Society* 30(4): 10–16.

Bushman, Brad J., and L.Rowell Huesman. 2000. Effects of televised violence on aggression. In *Handbook of children and the media*, ed. Dorothy G. Singer and Jerome L. Singer. Newbury park: Sage.

Caillois, Roger. 2001. *Man, play and games*. Urbana: University of Illinois Press.

Church, Doug. 2006. Formal abstract design tools. In *The game design reader. A rules of play anthology*, ed. Katie Salen and Eric Zimmerman, 366–380. Cambridge, MA: The MIT Press.

Consalvo, Mia. 2005. Rule sets, cheating, and magic circles: Studying games and ethics. *International Review of Information Ethics* 4: 7–12.

Cross, Nigel. 2007. *Designerly ways of knowing*. Berlin: Birkhäuser Verlag.

DeKoven, Bernie. 2002. *The well-played game. A playful path to wholeness*. San Jose: Writer's Club Press.
Eco, Umberto. 1979. *A theory of semiotics*. Bloomington, Indiana: Indiana University Press.
Endresen, Inger M., and Dan Olweus. 2005. Participation in power sports and antisocial involvement in preadolescent and adolescent boys. *Journal of Child Psychology and Psychiatry* 46(5): 468–478.
Floridi, Luciano. 1999. Information ethics: On the philosophical foundation of computer ethics. *Ethics an Information Technology* 1: 37–56.
Floridi, Luciano. 2003a. On the intrinsic value of information objects and the infosphere. *Ethics and Information Technology* 4(4): 287–304.
Floridi, Luciano. 2003b. Two approaches to the philosophy of information. *Minds and Machines* 13: 459–469.
Floridi, Luciano. 2004. The method of abstraction. In *Yearbook of the artificial: Nature, culture and technology*, vol. II, 177–220. Bern: Peter Lang.
Floridi, Luciano, and Jeff Sanders. 2004. Levellism and the method of abstraction. In *Information ethics group research report*. Available at http://web2.comlab.ox.ac.uk/oucl/research/areas/ieg/research_reports/ieg_rr221104.pdf. Accessed 26 Mar 2008.
Floridi, Luciano, and Jeff W. Sanders. 2005. Internet ethics: The constructionist values of homo poieticus. In *The impact of the internet in our moral lives*, ed. R. Cavalier. New York: SUNY.
Funk, Jeanne B., Heidi B. Baldacci, Tracie Pasold, and Jennifer Baumgardner. 2004. Violence exposure in real-life, video games, television, movies, and the Internet: Is there desensitization? *Journal of Adolescence* 27: 23–49.
Greco, Gian Maria, Gianluca Paronitti, Matteo Turilli, and Luciano Floridi. 2005. The philosophy of information – A methodological point of view. In *WM2005: Professional knowledge management, experiences and visions*, ed. Klaus-Dieter Althoff, Andreas Dengel, Ralph Bergmann, Markus Nick, and Thomas Roth-Berghofer, 563–570. Kaiserlautern: DFKI GmbH. Available online at http://www.philosophyofinformation.net/pdf/tpoiampov.pdf..
Heide Smith, Jonas. 2006. *Plans and purposes. How videogame goals shape player behavior*. IT University of Copenhagen, Decemeber 7, 2006. Available at http://jonassmith.dk/weblog/wp-content/dissertation1-0.pdf. Accessed 9 Dec 2010.
Heidegger, Martin. 1977. *The question concerning technology and other essays*. Trans. William Lovitt. London: Harper Collins.
Heidegger, Martin. 1988. *The basic problems of phenomenology*. Bloomington/Indianapolis: Indiana University Press.
Horkheimer, Max, and Theodor Adorno. 1997. *Dialectic of enlightenment*. New York: Verso.
Ihde, Don. 1990. *Technology and the lifeworld. From garden to earth*. Bloomington/Indianapolis: Indiana University Press.
Ihde, Don. 1993. *Postphenomenology. Essays in the postmodern context*. Evanston: NorthWestern University Press.
Järvinen, Aki. 2008. *Games without frontiers: Theories and methods for game studies and design*. Tampere: Tampere University Press. Available at http://acta.uta.fi/english/teos.phtml?11046. Accessed 26 Mar 2008.
Juul, Jesper. 2005. *Half real. Videogames between real rules and fictional worlds*. Cambridge, MA: The MIT Press.
Juul, Jesper. 2007. A certain level of abstraction. In Conference paper at the third Digital Games Research Association Conference, Tokyo, Japan. Available at http://www.jesperjuul.net/text/acertainlevel/.
McCormick, Matt. 2001. Is it wrong to play violent video games? *Ethics an Information Technology* 3: 277–287.
Merleau-Ponty, Maurice. 2002. *Phenomenology of perception*. London: Routledge.
Murray, Janet. 1998. *Hamlet on the holodeck: The future of narrative in cyberspace*. Cambridge, MA: The MIT Press.
Norman, Donald. 2002. *The design of everyday things*. New York: Basic Books/Perseus.

Penny, Simon. 2004. Representation, enaction, and the ethics of simulation. In *First person new media as story, performance, and game*, ed. Noah Wardrip-Fruin and Pat Harrigan, 73–84. Cambridge, MA: The MIT Press.
Reynolds, Ren. 2002. Playing a "Good" game: A philosophical approach to understanding the morality of games. Available from http://www.igda.org/articles/rreynoldsethics.php.
Rollings, Andrew, and Ernst Adams. 2003. *On game design*. Indianapolis: New Riders.
Rouse III, Richard. 2005. *Game design theory and practice*. Plano: Wordware Publishing Inc.
Salen, Katie, and Eric Zimmerman. 2003. *Rules of play – Game design fundamentals*. Cambridge, MA: The MIT Press.
Simon, Herbert A. 1981. *The sciences of the artificial*. Cambridge: The MIT Press.
Suits, Bernard. 1978. *The grasshopper. Games, life and Utopia*. Toronto: University of Toronto Press.
Takahashi, Dean. 2004. Ethics of game design. *Game Developer's Magazine*, December 2004.
Turing, A.M., 1936-1937. On Computable Numbers, with an Application to the Entscheidungs problem. *Proceedings of the London Mathematical Society* s2-42: 230–265; correction *ibid*., s2-43 (1936): 544–546 (1937).
Verbeek, Peter-Paul. 2005. *What things do*. University Park: The Pennsylvania State University Press.
Weisfeld, Matt. 2000. *The object oriented thought process*. Indianapolis: Sams.
Wiener, Norbert. 1965. *Cybernetics: Or control and communication in the animal and the machine*. Cambridge, MA: The MIT Press.

## References – Games

2K Boston/2K Australia. 2007. *Bioshock*. 2K Games.
Bioware. 2003. *Knights of the Old Republic*. LucasArts.
Lionhead Studios. 2004. *Fable*. Microsoft Game Studios.
Newsgaming.com. 2003. *September 12$^{th}$*. Newsgaming.com.
Rockstar North. 2008. *Grand Theft Auto IV*. Take-Two Interactive.

# Chapter 9
# Virtual Rape, Real Dignity: Meta-Ethics for Virtual Worlds

**Edward H. Spence**

## 9.1 Introduction

> They say he raped them that night. They say he did it with a cunning little doll, fashioned in their image and imbued with the power to make them do whatever he desired. They say that by manipulating the doll he forced them to have sex with him, and with each other, and to do horrible, brutal things to their own bodies. And though I wasn't there that night, I think I can assure you that what they say is true, because it all happened right in the living room—right there amid the well-stocked bookcases and the sofas and the fireplace—of a house I came later to think of as my second home (from chapter 1 of Julian Dibbell's *My Tiny Life*, 1998, first published in *Village Voice*, December 1993).

If virtual worlds are merely "virtual" and thus not real, why should we care about what happens in those worlds, let alone care about what the ethics of virtual worlds are or ought to be? A simple and straightforward answer to this question is that insofar as ethics concerns the inter-relations that people have with one another and insofar as such inter-relations can and do take place within the boundaries of virtual worlds, then clearly ethics is relevant to virtual worlds. If people of their own free will and with informed consent decide to engage with each other in commercial or any other types of social transactions within the boundaries of a virtual world, as they often do for example in the virtual world of *Second Life*, then those transactions ought to be bound by similar ethical standards as those applicable in the real world.

Banks such as ABN Amro, computer companies such as IBM, Universities such as the University of Oxford, famous fashion houses such Armani, to name but a few, all have business venues within Second Life. Thus, insofar as the *virtual*

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transactions that take place between people and these corporate institutions within the boundaries of virtual worlds involve inter-relationships between real persons, more precisely their virtual representations, then those virtual transactions, like transactions in the real world, ought to be bound by ethical norms and standards. By parity of argument, all inter-relationships formed between persons or more precisely their virtual representations in virtual worlds, ought to be bound by ethical standards, just as they are in the real world. So for example, if an inter-transaction between two individuals that involves one individual (A) cheating another individual (B) in a way that results in an injustice to individual (B), that inter-transaction is no less unethical with regard to the specific act of cheating merely because the cheating took place within the confines of a virtual world. The same general consideration applies to other forms of unethical acts that take place in virtual worlds and result in some form of harm or injustice caused by one individual or group of individuals to another individual or group of individuals.

The primary objective of this chapter is to demonstrate that the moral boundaries between a virtual world (VW) and the real world (RW) are porous and continuous. There is therefore no *magic circle* that surrounds VWs and renders them non-moral and immune or exempt from moral appraisal. On the contrary, the chapter will show that VWs just like the real world are worlds where ethics plays or at least ought to play a central role. To illustrate the argument in support of this position, the paper will refer to a central case in the history and development of virtual worlds and computer games more generally, namely, that of a virtual rape incident that took place in LamdaMOO, a multi-user dimension world or MUD. Known as the *Bungle Affair*, the case was reported and discussed at length by Julian Dibbell in a chapter in his book *My Tiny Life*, titled "A Rape in Cyberspace" (1999).

## 9.2 Overall Argument of the Paper in Summary

For the purpose of this chapter I shall define virtual worlds as "persistent, computer-mediated environments in which a plurality of players can interact with the world and each other" (Richard Bartle 2006: 31). *Second Life* and *EverQuest*, among others, are such virtual worlds. Do players of virtual worlds and their avatar representatives in those worlds have rights? In this chapter I shall argue that they do. Taking my cue from Ralph Koster's "declaration of the rights of avatars" (Koster 2006: 55–56) I shall base my claim on Alan Gewirth's argument for the Principle of Generic Consistency (PGC) which demonstrates that all purposive agents have *generic rights* to freedom and wellbeing (Gewirth 1978). I shall adopt that argument to demonstrate that insofar as avatars can be viewed as the virtual representations of the persons that instantiate them in the real world, and these persons have goals or purposes which they seek to fulfil within the environments of virtual worlds through their avatars, then they and by extension their avatars are acting purposively and as such, have rights to freedom and wellbeing. These rights, being only prima facie implies that they cannot be used by agents or their avatars to violate the legitimate rights of other purposive agents or those of their avatars.

I wish to make it abundantly clear at the outset that the terms "virtual representations" or "virtual modes of presentations" or "virtual extensions" used to refer to the avatars of players in this chapter are merely interchangeable semantic terms with no metaphysical meaning or weight attached to them. As such, I am not making any metaphysical claim concerning what the identity relationship of the player-avatar is or what it might be. That is not the present concern of this chapter. What the present concern of this chapter is, is simply to show, in line with Gewirth's argument for the Principle of Generic Consistency, that purposive agency establishes rights-claims for agents who engage in purposive actions in virtual worlds *through their avatars*. Hence, those virtual purposive actions give rise to rights *within* the virtual worlds in which those actions take place. This point is further elaborated and clarified in Sects. 9.4.1.1 and 9.4.1.2 of the chapter. The primary point this chapter seeks to make is not what the identity relationship of players to their avatars is but rather the ethical rights and obligations to which the purposive actions of players in virtual worlds through their avatars give rise. This chapter is topic-neutral on the question concerning the metaphysical explanation of the identity relationship between players and their avatars. The same ethical commitments argued for in this chapter will still exist no matter how that relationship is conceived metaphysically.

I argue, moreover, that although only prima facie with regard to agency, rights to freedom and wellbeing become absolute and inalienable when they refer to the dignity of persons (Spence 2006: chapter 4). Thus although an agent's avatar could be justified in violating (I shall refer to a justified violation of rights as an *infringement*) the generic rights of another agent's avatar by killing them in a duel or combat let us say, especially when the code of the virtual world and the end-user license agreement (EULA) allows for that to happen or at least does not disallow it, no agent is ever justified in violating the rights of another agent by undermining their dignity or self-respect by some widely recognized act of degradation such as racial vilification, or rape, for example. Insofar as rape can take place in a virtual world (in some specified sense that renders it at least equivalent to real rape with regard to the degradation suffered by the victim), the victim of such virtual rape may be psychologically and emotionally harmed by being made to feel degraded.

I argue that in general, the code of a virtual world (VW) together with its EULA may allow or at least not disallow virtual "crimes" such as theft or killing that infringe an avatars' rights, provided those virtual crimes are in keeping with the accepted rules of the game played in that virtual world in accordance with the VW's code and EULA. However, a code or EULA should never allow and must always disallow virtual crimes in a virtual world or other acts that degrade or can potentially degrade the dignity of an avatar's person, such as virtual rape for example, even if this is intended as merely part of a game within a virtual world. With regard to absolute rights that a person has to one's dignity, morality both in the real world and within a virtual world is always permeable and porous, although it may be less so in the case of crimes that although may infringe an avatar's generic rights in a virtual world, such as theft and killing, do not violate but maintain respect for the avatar's absolute rights to their dignity as a person.

Thus contrary to Edward Castronova (2006: 79) I argue that morally speaking, virtual worlds can never be "closed" with regard to what affects or could potentially affect the personal dignity of avatars and their persons (the persons who instantiate them in the real world). There is, in other words, no moral *magic circle* separating virtual worlds from the real world, specifically with regard to the absolute rights that agents have to their dignity as persons, both within and without the boundaries of virtual worlds. With regard to morality but not always with regard to the law, there is an ethical continuum that runs between virtual worlds and the real world. An insult that causes offence can be just as hurtful within a virtual world as it can in a real world. An insult can potentially be morally *real* in both worlds.

I am thus in agreement with Jack Balkin that "the boundaries between the game space and real space are permeable" (Balkin 2006: 91). However, adopting a middle position between Edward Castronova and Jack Balkin, I claim that virtual worlds can, under appropriate *interration laws* (Castronova 2006) as instantiated by the virtual world's code and EULA, allow for some closure that renders avatars that steal from or kill other avatars, immune from both moral culpability and legal sanction, especially if such actions are accepted by the avatars themselves as being part of the game space and game plan of the VW.

In exercising their right to free association and the right to freedom to play in virtual worlds that in their view enhances both their sense of freedom and wellbeing, avatars may choose to waive their prima facie rights to freedom and wellbeing that in the real world would preclude others from stealing from them and even killing them. Within a virtual world such actions may be permitted as being part of the "game" and thus morally acceptable within the *role morality* (see Sect. 9.3.3) of the VW. However, nothing within a virtual world that in some way degrades the personal dignity of an avatar may be permitted, even when it is in accordance with the role morality of the VW as instantiated by the VW's code and EULA.

An overriding proviso that needs to be emphasized, therefore, is that the code and EULA of a virtual world must always be consistent with and not contravene the requirements of the Principle of Generic Consistency (PGC), especially as they apply to respect for the absolute rights to freedom and wellbeing that all avatars have by virtue of their dignity as persons.

## 9.3 The Meta-ethical Framework Informing the Argument

### *9.3.1 The Rights of Agents: Alan Gewirth's Argument for the Principle of Generic Consistency*

Due to constraints of space, I am unable to present a full exposition and detailed justification for Alan Gewirth's argument for the Principle of Generic Consistency (PGC) in this paper. This is provided in *Ethics Within Reason: A Neo-Gewirthian*

*Approach* (Spence 2006). As such, I will only provide a summarized exposition and Gewirth's argument for the PGC in outline only.

Gewirth's main thesis is that every rational agent, in virtue of engaging in action, is logically committed to accept a supreme moral principle, the Principle of Generic Consistency. The basis of his thesis is found in his doctrine that action has a normative structure, and because of this structure every rational agent, just in virtue of being an agent, is committed to certain necessary prudential and moral constraints.

Gewirth undertakes to prove his claim that every agent, *qua* agent, is committed to certain prudential and moral constraints in virtue of the normative structure of action in three main stages. First, he undertakes to show that by virtue of engaging in voluntary and purposive action, every agent makes certain implicitly evaluative judgments about the goodness of their purposes, and hence about the necessary goodness of their freedom and wellbeing, which are the necessary conditions for the fulfilment of their purposes. Secondly, he undertakes to show that by virtue of the necessary goodness which an agent attaches to his freedom and wellbeing, the agent implicitly claims that they have rights to these. These natural rights being, at this stage of the argument, only self-regarding are merely *prudential rights*. Thirdly, Gewirth undertakes to show that every agent must claim these rights in virtue of the sufficient reason that they are a *prospective purposive agent* (PPA) who have purposes they want to fulfil. Furthermore, every agent must accept that, since they have rights to their freedom and wellbeing for the sufficient reason that they are a PPA, they are logically committed, on pain of self-contradiction, to also accept the rational generalization that all PPAs have rights to freedom and wellbeing (Gewirth 1978: 48–128). At this stage of the argument these rights being also other-regarding, now become *moral rights*. The conclusion of Gewirth's argument for the PGC is in fact a generalized statement for the PGC, namely, that all PPAs have rights to their freedom and wellbeing.

## *9.3.2 The Absolute Right to Dignity*

### 9.3.2.1 A Reconstruction of Gewirth's Argument for the PGC

Gewirth's argument for the PGC reveals that a person has rights to his freedom and wellbeing in virtue of being a prospective purposive agent (PPA). My analysis of the concept of "self-respect" (Spence 2006: chapter 4) reveals that a person needs to have the property or quality of self-respect in order to function fully as a person. But to have the property or quality of self-respect, which is essential and fundamental to being a person, an agent must have freedom and wellbeing, since, according to my analysis, freedom and wellbeing are the essential and fundamental constituents of a person's self-respect. Thus an agent must not only claim rights to his freedom and wellbeing on the basis that these are the necessary conditions for all his purposive actions, but he must also claim rights to his freedom and wellbeing because these are the essential and fundamental constituents of his self-respect.

In sum, an agent must consider that he has rights to his freedom and wellbeing not only because he is the sort of being who engages in voluntary and purposive action—that is to say, a being who is a *PPA*—but also because he is the sort of being who needs self-respect—that is to say, a being who is a *person*. To be sure, by being a person an agent is also a PPA. However, my analysis is meant to highlight what I consider to be another important and fundamental aspect of being a person, apart from merely being a PPA who engages in voluntary and purposive action. Although Gewirth's argument for the PGC does not explicitly refer to or focus on an agent's sense of self-respect, the notion of self-respect is implicit in Gewirth's argument because it is a notion which is implied by Gewirth's notions of both freedom and wellbeing, especially the latter. Gewirth himself refers to the concept of "self-esteem" as an example of one of the goods belonging to his notion of "additive wellbeing", which is one of three components which comprise an agent's total wellbeing.

Gewirth's argument, starting from what any person *does* (that is, engage in voluntary and purposive action), reveals that any PPA must accept that he and all other PPAs have rights to freedom and wellbeing. By making explicit what is already implicit in Gewirth's argument, my reconstruction of it around the concept of self-respect reveals that every agent must accept that he has rights to his freedom and wellbeing because of what he *is*, namely, a being who needs self-respect—in other words, a person. Gewirth's explicit argument reveals what rights an agent has by virtue of the necessary conditions attaching to his purposive *actions as* an agent. My analysis of what is only implicit in Gewirth's argument, that is, the concept of self-esteem, reveals what rights an agent has by virtue of those conditions being constitutive of his self-respect as a person.

#### 9.3.2.2 The Agent's Double Standpoint

My reconstruction of Gewirth's argument, with regard to the role that self-respect plays in the argument, is Kantian in spirit, and accords with what Kant himself says about personhood in the *Grounding for the Metaphysics of Morals*:

> Rational beings are called *persons* inasmuch as their nature already marks them out as ends in themselves, i.e., as something which is not to be used merely as means and hence there is imposed thereby *a limit* on all arbitrary use of such beings, which are thus, *objects of respect*. Persons are, therefore, not merely subjective ends, whose existence as an effect of our actions has a value for us; but such beings are *objective ends,* i.e., *exist as ends in themselves* [emphases added] (Kant 1981: 36).

It is to emphasize this very crucial point, namely, that agents as persons should be treated as ends in themselves, that I believe the *personal* and *expressive* standpoint of an agent should be added to the agent's *instrumental* and *purposive* standpoint in Gewirth's argument. My reconstruction of Gewirth's argument with regard to adding the *personal-expressive* standpoint of an agent to the agent's *instrumental-purposive* standpoint is intended to demonstrate that agents not only

have a necessary *instrumental* and *agentive* interest in claiming rights to their freedom and wellbeing, but also, and more importantly, have a necessary *constitutive* or intrinsic and *personal* interest for claiming those rights. Interference with their freedom and wellbeing with regard to the former will frustrate their purposive actions and thus directly harm them as agents; in addition, interference with their freedom and wellbeing with regard to the latter will harm the agents as persons by removing or diminishing the necessary conditions sufficient for preserving and maintaining their self-respect. In the first instance, they will be harmed as *agents*; in the second instance, they will be harmed as *persons*.

This way of understanding Gewirth's argument, as one that requires an agent to regard and value his freedom and wellbeing both instrumentally and constitutively or intrinsically (that is, both as necessary means for achieving any of his chosen purposes, and as necessary goods which an agent values as ends in themselves in virtue of those necessary goods being constitutive of the agent's self-respect), accords well with Kant's claim that an agent or a person:

> Has *two standpoints* [emphasis added] from which he can regard himself and know laws of the use of his powers and hence of all his actions: first, insofar as he belongs to the world of sense subject to laws of nature (heteronomy); secondly, insofar as he belongs to the intelligible world subject to laws which, independent of nature, are not empirical but are founded only on reason (Kant 1981: 53).

#### 9.3.2.3 The Concept of Absolute Rights

We can now see that to some degree at least, a person has the generic rights we have established above, namely freedom and wellbeing, in virtue of being a person irrespective of what he does or omits to do as an agent. For every person, no matter what they do or fail to do, need their self-respect. Because all persons need their self-respect equally in virtue of being persons, each person will need a certain degree of freedom and wellbeing, especially the latter, in order to preserve and maintain a minimal degree of self-respect so as to preserve and maintain their personhood. Thus, a criminal needs their self-respect as much as a law-abiding citizen. In this sense, they must both have sufficient freedom and wellbeing to allow them to preserve and maintain their self-respect. To the extent that a person has a right to have enough freedom and wellbeing in order to maintain their self-respect, that right is absolute. The right to minimal freedom and wellbeing, sufficient for a person to preserve and maintain their self-respect, cannot, at the limit, be removed without at the same time removing the very conditions necessary for an agent's personhood.

According to Gewirth,

> a right is absolute when it cannot be overridden in any circumstances, so that it can never be justifiably infringed and it must be fulfilled without any exceptions (Gewirth 1982: 219).

The distinction between being an agent and being a person can be clearly demonstrated in terms of the harm that a person may suffer as an *agent* and the

harm he may suffer as a *person*. We can clearly conceive of a person suffering a certain harm as a result of his freedom and wellbeing being interfered with by others, with regard to the agent's purposive actions, with no loss of self-respect, and we can also clearly conceive of a person suffering a loss of self-respect as a result of being degraded by others in some way, without any hindrance to the performance of any of the agent's purposive actions. In the first instance, the agent would suffer, as an agent, an *instrumental* harm by virtue of not being able to perform some of his purposive actions. In the second instance, the agent would suffer, as a person, a *personal* harm by virtue of suffering a loss of self-respect. Of course, there are cases where an agent could also suffer a loss of self-respect if the planned performance of some of his purposive actions was frustrated by the interference of others. However, even in these mixed cases, where an agent suffers a personal harm as a result of, or in addition to, an instrumental harm, we can still make the conceptual distinction between the two harms. In fact these mixed cases, where an agent suffers a personal harm as a result of, or in addition to, an instrumental harm, are nicely captured by the commonplace colloquial saying "add insult to injury", where the "insult" is a personal harm and the "injury" an instrumental harm.

I have been trying to emphasize through my reconstruction of Gewirth's argument that a PPA must recognize and accept that he has rights to his freedom and wellbeing as the necessary means of all his purposive actions, as well as recognizing and accepting that he has rights to his freedom and wellbeing as the essential and fundamental constituents of his self-respect and personhood. The former rights are only prima facie and conditional on the kind of purposive actions that the agent engages in. The latter are absolute and unconditional because they are rights the agent has to his dignity, which he has not only as an agent engaging in purposive action, but also as a person who is capable of reflecting upon himself as a person worthy of respect. The agent owes the same two-fold conditional and unconditional respect to all other agents in their double capacity as agents and persons. As Gewirth correctly states, freedom and wellbeing are very important for the "personal dignity" of an agent because "without rights to these objects, the individual's personal dignity as an agent who can justifiably claim these goods on his own behalf is seriously threatened" (1986: 343). It is because of this "serious threat" to an agent's personal dignity that the violation of an agent's rights to his freedom and wellbeing might not only result in the interference and frustration of the agent's purposive actions; also and more importantly, such a violation might result in a terrible harm to his dignity and personhood. Consider, for example, a rape victim. The violation of her generic rights, in particular the violation of her substantive right to her wellbeing, is not merely an interference with and frustration of her purposive actions, but more seriously a violation of her dignity as a person. That is to say, the violation of her generic rights does not merely result in a loss with regard to her agency—a loss, that is, with regard to her not being able to perform certain actions and achieve certain goals—but far more seriously, the violation of her generic rights constitutes a loss to her dignity as a person. It is, in other words, not merely an *instrumental purposive loss*, an interference with the instrumental conditions necessary for the performance of certain purposive

actions, but an *intrinsic personal loss*, a loss of dignity which harms her not only instrumentally as an agent but personally as a self-respecting person.

It is also possible, of course, that a woman who has been raped might not suffer any instrumental loss as a result, at least not a loss that can be directly attributed to her rape. That is to say, the violation of her generic rights as a result of being raped might not interfere with any of her purposive actions or the accomplishment of any of her goals. Nevertheless, the woman would undoubtedly suffer a loss to her dignity, assuming, of course, that she sees her rape as a violation of her generic rights; especially, a violation of her wellbeing. This example serves to illustrate, once again, the conceptual distinction between agenthood and personhood that I mentioned above.

### *9.3.3 Role Morality and Universal Public Morality*

Every practice, profession or institution has its own internal *role morality***;** a morality determined by the specific overarching role of a particular practice, profession, or institution. Thus, the role of a police officer is to uphold law and order and to provide assistance in the criminal and judicial process; the role of a journalist is to inform the public truthfully and fairly on matters of public interest. The role morality of a particular practice, profession or institution sets in turn its own internal rules and codes of conduct for the ethical regulation of that practice, profession, or institution. Thus, typically, the code of ethics for a particular profession, industry or institution, would reflect and be constitutive of the role morality of that profession, industry or institution.

In contrast to role morality, I shall refer collectively to the moral requirement of equal respect of the rights to freedom and wellbeing of all purposive agents, in their dual capacity as agents and persons, established on the basis of the argument for the Principle of Generic Consistency, as *universal public morality*.

Sometimes the role morality of a particular institution or profession may come into conflict with universal public morality. For example, a journalist might in the hope of getting a scoop for his media organisation violate a person's right to privacy. When that happens, universal public morality will always take precedence over role morality for the simple reason that universal public morality being foundational is overriding as it applies equally to everyone irrespective of the particular personal, professional, and institutional interests or other commitments, including those required by the role morality of a particular institution or profession.

Ultimately, the role morality of every institution and profession is answerable to the principles and hence the requirements of universal public morality because it is universal public morality that provides the foundational justification of any particular role morality. For it would be self-defeating to allow role morality to override the very principles of universal public morality that provide the initial and foundational moral justification of institutional or professional role morality.

## 9.4 The Meta-ethical Framework Applied to the Ethics of Virtual Worlds

I have provided in Sect. 9.3 a meta-ethical framework, which includes a summarized account of the essential features of Gewirth's argument for the Principle of Generic Consistency as the supreme and universal principle of morality, the reconstruction of the argument for the PGC around the concept of dignity, as well as a distinction between universal public morality and role morality. With the meta-ethical framework now in place, I can now outline the significance and consequences of the application of that meta-ethical framework for the ethics of virtual worlds. This is required for providing a rational foundation and justification for the introductory claims I made earlier in my overall argument for this paper in Sect. 9.2.

### *9.4.1 The Rights of Virtual Agents*

In this section I will attempt to demonstrate that insofar as avatars can be viewed as virtual representations, or virtual extensions, of purposive agents in the real world, avatars, who just like their players in the real world, act and think purposively in virtual worlds (as virtual representations of their players) have rights to freedom and wellbeing. They have these rights on the basis of their virtual purposive agency. Strictly as agents who engage in purposive action they have these rights prima facie. However, as persons and specifically with regard to their self-respect or dignity, they have those rights absolutely. These rights of course extend to the designers and administrators of the virtual worlds, since they too are purposive agents and thus entitled to the same generic rights to freedom and wellbeing as the players and their avatars.

Insofar as purposive agency is the sufficient condition for having moral rights and insofar as the virtual agency of avatars can be viewed as an extension of the agency of the persons who instantiate them in the real world, it makes no difference, in principle at least, whether the purposive agency is that of real persons or that of avatars. Virtual purposive agency is as sufficient for establishing the rights of avatars as it is for establishing the rights of real persons. In a sense, avatars (as the virtual representations of their players) are real persons that just happen to inhabit a virtual environment.

Given that avatars, with regard to their personal and communal dignity, hold their generic rights absolutely, codes and EULAs of virtual worlds are never morally justified in allowing the violation of those rights. Insofar as virtual rape can take place in a virtual world (I leave the matter open whether it can or it cannot) that would constitute a violation of an avatar's absolute rights and would thus be morally objectionable even if rape was somehow allowed by the code or EULA of the virtual world in question.

However, with regard to the avatars' prima facie rights to freedom and wellbeing, avatars may choose to waive their generic rights not to be killed or have their virtual property stolen, if the code and EULA of a particular virtual world allow such activities as part of a game.

#### 9.4.1.1 Objection 1: Only Real Agents Can Have Rights

An objection that could be raised against my argument so far is as follows: Can avatars be viewed in any meaningful way as *purposive agents (PAs)*? Only players are PAs. Avatars as mere virtual extensions of their players, cannot be PAs and hence do not have rights.

To answer the above objection we must first briefly explore the question of who suffers moral harm. Is it the player or their avatar? This in turn leads to another question. What is the identity relationship of player and avatar? Is an avatar merely a player's different mode of presentation? Does the avatar constitute a different identity-sense (or mode of presentation) but same identity-reference to that of player, suggested perhaps by Gottlob Frege's distinction between sense and reference? Frege (1984).To summarise: When moral harm occurs, whose rights are infringed or violated, those of the player or the avatar? If the player's, then avatars don't have rights and hence cannot suffer moral harm by violation of those rights.

#### 9.4.1.2 Response to Objection 1: Room for Rights

Rights require a claimant and a respondent and a *world-space* in which rights can be actioned. Let us consider that a moral harm in a virtual world (VW) is a harm done by avatar A/Player X (AX -respondent) to avatar B/Player Y (BY-claimant). Lets us also assume that the respective identities of players Y and X are opaque: Y and X are unknown to each other in both the real world (RW) and the virtual world (VW). In most cases, that would be the default position, for it is only optional that avatars choose (or not) to reveal their player-identities to each other. So in our example, players X and Y are in RW whereas their avatars A and B are in VW. Due to the opacity of world spaces (OWS), Claimant-BY can only seek moral redress against Respondent-AX for the moral harm done to him in VW but not in RW. Hence, Avatar B as Player Y's *virtual representative (claimant)* can seek moral redress from Avatar A as Player X's virtual representative (respondent) for the moral harm done to him in VW since he cannot do so in RW. And since rights to freedom and wellbeing are universal, the VWs' End-User Licensing Agreement (EULA) and Code must allow for actionable moral redress in rights violations within a VW.

The general ethical principle therefore is that due to the OWS, avatars in all VWs, as virtual extensions of their players in the RW have rights and corresponding obligations as both claimants and respondents in those VWs. Hence, avatars as virtual representatives of players have rights to freedom and

wellbeing, prima facie as agents and absolute as persons, and those rights are actionable in VWs.

You will note that the above response to the objection raised in Sect. 9.4.1.1 relies only and is facilitated by a very minimal account of the identity-relationship between avatar and player. In other words, the response to that objection does not rely on any controversial or problematic metaphysical account of the identity-relationship of avatar and player. Indeed, the *virtual representation*, or *mode of presentation* or *virtual extension* of *players* account I have used for the avatar and player relationship in my argument effectively bypasses any commitment to an independent or quasi-independent identity status for the avatar. But by being metaphysically silent or topic-neutral it is neither incompatible with such a position. I merely choose not to rely on any metaphysical identity theory for avatars in granting them rights, since none is required.

#### 9.4.1.3 Objection 2: How Does the Opacity Argument Establish Rights for Avatars?

A possible objection against my argument from the opacity of world spaces (OWS) could be the following: The opacity argument seems only to establish that people have rights when they engage in activities through their avatars and not that avatars have rights. It is therefore not clear how the opacity argument secures the conclusion that avatars have rights. How then does epistemic opaqueness establish that avataric actions always entail rights? (I owe with gratitude this objection to one of the reviewers of this chapter).

#### 9.4.1.4 Response to Objection 2

The simple answer to this objection, which follows directly from my reply to objection (1) above, is that epistemic opaqueness does not establish rights in virtual worlds. What establishes rights in virtual worlds is the purposive agency of the players engaged in purposive virtual actions in virtual worlds through their avatars. What epistemic opaqueness establishes is *where* (the location) those rights can be claimed. As they can't be claimed in the real world since players only know each other through their avatars, rights emanating from avataric purposive action can only be claimed within the VWs in which the actions took place and in which both the claimants and the respondents to those claims are situated, that is, the VWs. That is what the Argument from Room for Rights seeks to show in Sect. 9.4.1.2. Simply, that since avataric actions give rise to rights and corresponding obligations in VWs those rights should be claimed and be responded to in the VWs in which they take place.

#### 9.4.1.5 Objection 3: How Can Rights Arise in a World of Make-Believe?

Yet another objection to avatars having rights might be the following: If the avataric sphere is one of "make-believe", how can a world of "make-believe" give rise to rights? (I owe with gratitude this objection to the reviewers of this chapter).

#### 9.4.1.6 Response to Objection 3

The answer to this objection, based on the argument made throughout this chapter, is that if the basis of rights as per Gewirth is purposive agency then rights can arise in virtual worlds just as they can in the real world. My main point in this chapter is that with regard to ethics Virtual Worlds (VWs) are ethically speaking just as real and relevant as the natural world, given that what makes both ethically relevant is purposive agency. If persons can act purposively in VWs, as they obviously do via their avatars, then their actions give rise to rights claims in those VWs.

### *9.4.2 Virtual Rape: The Bungle Affair*

Having examined and defended the argument for generally granting avatars rights to freedom and wellbeing in respect of their dual capacity as agents and persons (in line with the agent's double standpoint discussed in Sect. 9.3.2.2) I will in this section illustrate the argument by applying it to the Mr Bungle case. The facts of the case as reported by Julian Dibbell (1999 and 1993) in summary are these: Mr Bungle visited the living room of LambdaMOO (a VW for our purposes) and using a voodoo doll forced exu (the name of another virtual character in LambdaMOO) of indeterminate gender and one of the room's occupants to engage with him in various sexual activities. He then turned his attention to Moondreamer a female character in the room and forced her to engage in unwanted and involuntary liaisons with other individuals present in the room, among them exu, whom he made to eat his/her own pubic hair. He then forced Moondreamer to sexually violate herself using a piece of kitchen cutlery. Mr Bungle only stopped his sexual attacks on the two characters exu and Moondreamer when Iggy, another character present in the room intervened and finally disempowered Mr Bungle by neutralising his voodoo doll's powers.

The incident described by Dibbell of course only took place in the virtual environment, the living room of LambdaMOO and not in the real world. As Dibbell points out (1999, 1993),

> To the extent that Mr. Bungle's assault happened in real life at all, it happened as a sort of Punch-and-Judy show, in which the puppets and the scenery were made of nothing more substantial than digital code and snippets of creative writing. The puppeteer behind Bungle that night, as it happened, was a young man logging in to the MOO from a New York University computer. He could have been Al Gore's mother-in-law for all any of the others

> knew, however, and he could have written Bungle's script that night any way he chose. He could have sent a command to print the message Mr. Bungle, smiling a saintly smile, floats angelic near the ceiling of the living room, showering joy and candy kisses down upon the heads of all below—and everyone then receiving output from the database's subprogram #17 (a/k/a the "living room") would have seen that sentence on their screens.
>
> Instead, he entered sadistic fantasies into the "voodoo doll," a subprogram that served the not-exactly kosher purpose of attributing actions to other characters that their users did not actually write. And thus a woman in Haverford, Pennsylvania, whose account on the MOO attached her to a character she called Moondreamer, was given the unasked-for opportunity to read the words. As if against her will, Moondreamer jabs a steak knife up her ass, causing immense joy. You hear Mr. Bungle laughing evilly in the distance. And thus the woman in Seattle who had written herself the character called exu, with a view perhaps to tasting in imagination a deity's freedom from the burdens of the gendered flesh, got to read similarly constructed sentences in which exu, messenger of the gods, lord of crossroads and communications, suffered a brand of degradation all-too-customarily reserved for the embodied female (from chapter 1 of Julian Dibbell's *My Tiny Life*, 1998, first published in *Village Voice*, December 1993).

As a result of the sexual assault on exu and Moondreamer and after much painstaking debate and consultation among the regular residents of LambdaMOO and its technician-wizards over many days, Mr Bungle was in VW language "toaded" and banished from LambdaMOO by having his character eliminated (his LambdaMOO account cancelled)—the closest thing to capital punishment in a VW.

Dibbell who talked to the real person behind exu's character, a woman in Seattle, reports that she had confided in him that whilst posting her strong criticism on the social issues forum in LambdaMOO concerning Mr Bungle's sexual attack on her avatar exu, post-traumatic tears were streaming down her face. This, according to Dibbell, was "a real-life fact that should suffice to prove that the words' emotional content was no mere fiction" (1998, 1993). He goes on to say,

> Where virtual reality and its conventions would have us believe that exu and Moondreamer were brutally raped in their own living room, here was the victim exu scolding Mr. Bungle for a breach of "civility." Where real life, on the other hand, insists the incident was only an episode in a free-form version of Dungeons and Dragons, confined to the realm of the symbolic and at no point threatening any player's life, limb, or material well-being, here now was the player exu issuing aggrieved and heartfelt calls for Mr. Bungle's dismemberment. Ludicrously excessive by RL's [RW's] lights, woefully understated by VR's [VW's], the tone of exu's response made sense only in the buzzing, dissonant gap between them (from chapter 1 of Julian Dibbell's *My Tiny Life*, 1998, first published in *Village Voice*, December 1993).

This is a poignant passage, which now allows us the opportunity to examine this case in terms of the ethics of dignity within the meta-ethical framework outlined above. Exu's scolding of Mr Bungle of a breach of "civility" as referred to in the quoted passage, is in fact the appropriate and correct ethical response. Exu's and Moondreamer's sexual violation was indeed a breach of civility just because civility and more generally human civilisation whether in the real world or in a virtual world such as LambdaMOO, for example, is based on the inalienable right that persons have to their dignity, both as individuals and as members of their respective communities, and in the case of exu and Moondreamer, the LambdaMOO

community. Whereas Dibbell suggests that exu's response was perhaps "*ludicrously excessive by RL's [RW's] lights, [and] woefully understated by VR's [VW's], [its] . . . tone. . .[making] sense only in the buzzing, dissonant gap between them*" I want to claim that exu's response makes perfect sense in both the real world and a virtual world precisely because there is no *moral* gap between virtual worlds and the real world. At least, there ought not to be.

As discussed in Sect. 9.4.1.2, rights require a claimant and a respondent and a *world-space* in which those rights can be exercised and actioned. In the Mr Bungle case, the claimants are exu and Moondreamer and the respondent, albeit reluctant respondent is Mr Bungle. If we accept that (a) exu and Moondreamer felt, justifiably, degraded and hurt as a result of Mr Bungle's sexually oriented actions against them, then (b) given that those actions took place in the world-space of LambdaMOO and in addition (c) due to the opacity of world spaces (OWS) those rights cannot be claimed or responded to in the real world but only in the virtual world in which those actions took place and in which both claimants and respondent are present and known to each other, then we can conclude that (d) exu (player–avatar) and Moondreamer (player–avatar) have rights to their freedom and wellbeing and that (e) those rights, as they specifically relate to their dignity as persons worthy of minimal absolute respect, have been violated by Mr Bungle.

As a result of that violation, Mr Bungle was punished by being "toaded" or banished from LambdaMOO. I won't discuss here whether the punishment meted out to Mr Bungle was excessive or not, as this goes well beyond the present scope of the paper, which is simply to illustrate the main argument in the paper, namely, that avatars in virtual worlds just as much as their players in the real world have rights to their freedom and wellbeing with regard to both their agency and their personhood and those rights are actionable in the world-spaces of VWs. Suffice to say that significantly and providing at least rhetorical support for the argument advanced in this paper, Dibbell states that Mr Bungle "had committed a MOO crime and his punishment, if any, would be meted out via the MOO" (Dibbell 1999, 1993). He goes on to poignantly make the following remark, which also seems to lend further rhetorical support to my analysis of the Mr Bungle case above:

> Where before I'd found it hard to take virtual rape seriously, I now was finding it difficult to remember how I could ever *not* have taken it seriously (1998, 1993).

## 9.5 Some Final Remarks

### *9.5.1 Virtual Role Morality and Universal Public Morality*

An important and overriding proviso is that the code and EULA of a virtual world must always be consistent with and not contravene the requirements of the Principle of Generic Consistency (PGC), especially as they apply to the absolute rights to freedom and wellbeing that all avatars/players have, by virtue of their dignity as

persons. Thus a virtual world's Code or EULA is never justified in creating a *role morality* for itself that contravenes the universal morality supported by the PGC. The latter, because universal and foundational, being based on the PGC as the supreme principle of morality, will always take moral priority and override the *role morality* of any virtual world that allows for example, virtual rape or racial vilification, even though this might be allowed by the interration laws that are instantiated by the virtual world's Code and EULA. In other words, the interration laws of a virtual world must themselves be consistent with and not contravene the PGC.

### *9.5.2 Virtual Rights Are Universal Rights*

The rights of avatars in virtual worlds like the rights of their counterpart players in the real world are universal rights that apply always and everywhere. Thus an avatar and his counterpart player in the real world have the same universal rights to freedom and wellbeing irrespective of whether they reside in China, Kenya, Saudi Arabia, Iraq, Europe, America, Australia or anywhere else in the world or in cyberspace. Of course how those rights are used or applied to pursue individual and collective goals may vary from place to place from person to person. However, as Gewirth's argument for the PGC and my reconstruction of it around the notion of dignity clearly demonstrates, since freedom and wellbeing are the necessary features of all action, they form the basis of universal rights to those necessary goods for all purposive agents, both real and virtual, for without them no purposive action would be possible, either in the universe or the metaverse.

## 9.6 Conclusion

The following is the conclusion of the paper in outline:

- Avatars have Rights to freedom and wellbeing, at least minimally, as Virtual Representatives or Virtual Modes of Presentation of their Players.
- Due to the Opacity of Worlds those rights are actionable in Virtual Worlds (VWs) since they cannot be actionable in the Real World (RW).
- Hence, RW and VWs are Morally Porous and Continuous—there's no *Moral Magic Circle* between RW and VWs.
- Virtual Rights (the rights of avatars) are Universal Rights and thus Global.
- Those rights are Prima-Facie with regard to purposive agency and Absolute with regard to personal dignity in both RW and VWs.
- Universal Public Morality—UPM (a universal morality based on the PGC) is applicable in both RW and VWs, and always overrides the Role Morality of any VW and those in RW when those two types of moralities come into conflict.

- Hence, the EULAs and Codes of Virtual Worlds must always adhere to UPM, particularly with regard to the absolute rights that avatars/players have to their dignity both personally and communally.

## Endnote

1. The term *magic circle* as applied in games generally and computer games specifically, was introduced by Johan Huizinga in his well known work *Home Ludens* (1955). The application of the concept of *magic circle* to computer games has been widely discussed by several computer-game scholars. See in particular, Castronova (2006), Copier (2005), Montola (2005), Fairfield (2009) and Consalvo (2005) among others.
2. A full and detailed defence of the argument for the PGC against all the major objections raised against it by various philosophers can be found in Spence (2006: Chapters 1–3), Beyleveld (1991) and Gewirth (1978).
3. I use the terms *self-respect* and *dignity* interchangeably and with the intention that the terms be understood to apply both with regard to the individual person and to the community/ies to which that individual person belongs. Thus a degradation say to one's race, nation or gender, would also be degradation to the individual persons that comprise that race, nation or gender, if it were perceived as such by those individual persons.
4. The choice by avatars to waive their prima facie rights with regard to certain activities in virtual worlds, such as being killed, for example, occurs also in the natural world. Soldiers, for instance, engaged in war, consent by their very engagement in war to waive their prima facie right not to be killed, just as avatars do in some virtual worlds. This comparison clearly indicates at the very least that the distinction between the real and the virtual, especially as concerns ethics, is not substantive and supports the main claim of this chapter that there are no relevant boundaries between the real and the virtual with regard to ethics. I owe this comment with gratitude to one of the reviewers of this chapter.
5. Peter Ludlow has conveyed to me in conversation his view that an avatar is no more than a different mode of presentation of the player, suggesting that an avatar does not in any sense hold a separate, albeit related, identity to that of their player.
6. I use the term *actionable* here and throughout this chapter to mean specifically *morally actionable*, although I do not exclude the more general and technical meaning of the term *actionable*, which typically means *legally actionable*. However, the question whether an actionable moral wrong committed in a virtual environment as defined in this chapter is also an actionable legal wrong, is not a question I consider or pursue in this chapter. Indeed, certain moral wrongs such as virtual rape might not be actionable in law. Nevertheless, this does not make virtual rape any less of a moral wrong, as this chapter demonstrates.
7. *Rapelay*, a Japanese computer game by *Illusion* that features rape as its main theme caused so much controversy around the world when it was first released that Amazon.com withdrew the game after its initial appearance on its site. The almost universal condemnation of the game worldwide would suggest that most people find rape whether actual or virtual a morally reprehensible and condemnable moral wrong. This lends further support to the central thesis of this chapter that virtual rape as a violation of a person's dignity is unethical and should be prohibited by the EULAs and Codes of Virtual Worlds and those of Computer Games. For more information of Rapelay and its widespread condemnation see http://en.wikipedia.org/wiki/RapeLay. Accessed 7 June 2010. I owe this observation with gratitude to one of the reviewers of this chapter.

## References

Balkin, M.J. 2006. Law and liberty in virtual worlds. In *The state of play: Law, games, and virtual worlds*, ed. M.Jack Balkin and Noveck S. Beth. New York: New York University Press.

Bartle, R.A. 2006. Virtual worldliness. In *The state of play: Law, games, and virtual worlds*, ed. M.Jack Balkin and Noveck S. Beth. New York: New York University Press.

Beyleveld, Deryck. 1991. *The dialectical necessity of morality: An analysis and defense of Alan Gewirth's argument to the principle of generic consistency*. Chicago: University of Chicago Press.

Castronova, E. 2006. The right to play. In *The state of play: Law, games, and virtual worlds*, ed. M.Jack Balkin and Noveck S. Beth. New York: New York University Press.

Consalvo, Mia. 2005. Rule sets, cheating, and magic circles: Studying games and ethics. *International Review of Information Ethics* 3(06/2005): 7–12.

Copier, Marinka. 2005. Connecting worlds: Fantasy role-playing games, ritual acts and the magic circle. In *Proceedings of Digital Research Association (DiGRA) 2005 Conference: Changing Views-Worlds in Play*, Canada, June 16–20, 2005. Vancouver: University of Vancouver.

Dibbell, Julian. 1993. *My tiny life*. Owl Books, Chapter 1, pp. 1–16. C:\Documents and Settings\Administrator\My Documents\Edward\Computer Games\JULIANDIBBELL.mht. Accessed 4 June 2010.

Dibbell, Julian. 1999. *My tiny life*. Owl Books, Chapter 1, pp. 1–16. C:\Documents and Settings\Administrator\My Documents\Edward\Computer Games\JULIANDIBBELL.mht. Accessed 4 June 2010.

Fairfield, Joshua. 2009. The magic circle. *Vanderbilt Journal of Entertainment and Technology Law* 11(4): 823–840.

Frege, Gottlob. 1984. On sense and meaning. Trans. M. Black. In *Collected papers on mathematics, logic and philosophy*, ed. B. McGuiness, 157–177. Oxford: Basil Blackwell.

Gewirth, Alan. 1978. *Reason and morality*. Chicago: University of Chicago Press.

Gewirth, Alan. 1982. *Human rights: Essays on justification and applications*. Chicago: University of Chicago Press.

Huizinga, Johan. 1955. *A study of play element in culture*. Boston: Beacon.

Kant, Immanuel. 1981. *Grounding for the metaphysics of morals*. Indianapolis: Hackett Publishing Company.

Koster, R. 2006. Declaring the rights of players. In *The state of play: Law, games, and virtual worlds*, ed. M.Jack Balkin and Noveck S. Beth. New York: New York University Press.

Montola, Markus. 2005. Exploring the edge of the magic circle: Defining pervasive games. In *Proceedings of Digital Arts and Culture*, December 2–4, 2005, 1–4. Copenhagen: IT University in Copenhagen. http://users.tkk.fi/~mmontola/exploringtheedge.pdf. Accessed 7 June 2010.

Spence, Edward H. 2006. *Ethics within reason: A neo-Gewirthian approach*. Lanham: Lexington Books (an imprint of Rowman and Littlefield).

# Chapter 10
# Ethics and Practice in Virtual Worlds

**Ren Reynolds**

## 10.1 Introduction

This paper argues that acts that occur in virtual world games that only have meaning in the context of that game can have moral content. The paper examines arguments that have been made against virtual acts in general having moral content, and specifically against virtual game acts having said content. Focusing on T. M. Powers's arguments from *Real Wrongs in Virtual Communities* (2003), which support acts in social worlds such as *LambaMOO* having content but deny that virtual game worlds meet the necessary criteria, the paper will show how these arguments are too restrictive, and how a refined set of criteria are met by some acts that occur in virtual game worlds.

### *10.1.1 Skepticism of the Virtual*

There is often doubt that what occurs in computer games generally and virtual worlds specifically has ethical content. There are those who would argue that nothing (or nothing 'real') is actually occurring within them (Johnson 1997). This doubt can be summed up in the oft-heard expression 'it's just a game'. This rhetorical trivialization (Southern 2001; Consalvo 2003) seems to have three related roots. First, virtual worlds are non-physical, at least at the level of abstraction that is under examination here. This is often conflated with being not 'real', hence outside the consideration of normative ethics. Second, there are elements of fantasy and role play both in the setting of the game and in the type of play that some people engage in when interacting with and via the virtual world. This is taken as separating act from

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actor in a way that is akin to theatrical actor's moral responsibility for the actions of a character in a play. Third, some virtual worlds are games, and the idea of game seems to some to entail acts that have less moral weight than supposedly more serious activities. This last point follows from a general notion that games seem to be set in opposition to traditional norms, allowing actors to lie, use physical violence, etc., with no fear of censure. Across each of these concerns run threads related to anonymity or pseudonymity and disembodiment which are further supposed to render acts hollow of moral content.

### *10.1.2 Virtual Games*

Before examining whether a case can be made against this rhetoric of trivialization and the underling philosophical issues that it suggests, it is worth defining the scope of context and act with which this paper is chiefly concerned. The paper focuses on a type of virtual world commonly known as MMORPG (Massively Multiplayer Online Role Play Game) or MMO for short. Examples include *World of Warcraft*, *EverQuest*, *EvE Online*, *City of Heroes*, *Final Fantasy XI*, and *Anarchy Online*.

For those unfamiliar with the genre, MMOs are computer games played by multiple people who simultaneously share the same virtual space. This type of game is highly complex. Typically, people will be engaged in the same game for 10 or more hours a week sometimes over many years. The games have highly sophisticated rule systems. Acts within the game are limited by a number of factors including the affordances of the technology. For example, in some MMOs it is not possible to fly within the game space; walls may bound where a character may go, etc. Within these technical limits there is wide latitude of possible action. In practice, what limit the acts of the players are factors such as what is needed to meet the game goals; the written rules; unwritten socially defined rules; and self imposed norms.

It should be noted that there are also so-called social worlds such as *Second Life*, *There* and *LambdaMOO*. These are technically very like MMOs, however are not ostensibly created for game play. In other words, they tend to have rules of conduct but do not have explicit goals or game mechanics such as character levels.

A detailed examination of the ethics of acts occurring in social worlds is outside the scope of this paper – however some scholarship devoted to their ethics will be introduced where pertinent, e.g., general notions of a virtual act. A theme that will run through the paper is that a number of writers support a case for the ethics of virtual acts but place limits on these that typically exclude MMOs.

### *10.1.3 In-game Acts*

In terms of the scope of act that this paper focuses on, it is chiefly concerned with acts that can be said to occur within MMOs. That is, while recognizing issues that

come to light from an external view of virtual worlds such as representation of gender and race, and issues of addiction, these are taken to be, at least on face value, a different class of moral issue from acts that derive their meaning primarily from the context of the virtual world itself.

The class of act that this paper focuses on includes in-world altruistic acts such as gift-giving and a range of acts that are variously termed *Griefing* and/or *Cheating*. Specifically this includes most of what is defined under Foo and Koivisto's Taxonomy of Grief Play (Foo and Koivisto 2004): *Harassment*; *Power Imposition*; *Greed Play;* and *Scamming* (though scamming is on the border of the focus of this paper as typically it will have external financial consequences). Also included as in-world acts of interest are: *Kill-stealing*; *Trains*; *Camping*; *Begging*; *Twinking*; *Power Leveling*; (Pargman and Erissson 2005; Smith 2004); such acts are variously termed *Ganking* and *Ninja Looting*.

Those unfamiliar with MMOs should read the following brief explanation of acts that illustrate the kind of behavior examined in this paper. The terms used here (and above) are those typically used by players to describe acts:

*Ninja Looting* is the situation where one player works with a group to achieve a set of rewards and then takes one of more of those rewards in a way that breaks an agreement explicitly or implicitly set by that group. That is, a group of players (typically from 5 to 25) will work together on a task (known as a Raid, Instance or Pick-up Group) taking between 30 min and several hours. The task is generally something that is not possible for any players to complete individually and may be so difficult that the group might not achieve it in a single attempt. Such tasks often have rewards that have high worth within the game, but these rewards are not always provided and there might only be one reward per group. Hence there are various social systems for agreeing who gets which reward. In *Ninja Looting* a player will take rewards that the group has not allocated to them and then will often do something like leave the group or log out of the game.

*Ganking* is the killing of a lower level player by a higher level one where there is no question of a contest (where the level of a player denotes how much relative power they have in the game; for example, in *World of Warcraft* player levels currently range from 1 to 80). Sometimes this act is repeated over and over stopping the lower level player from doing anything else in the game and occasionally leaving them with little option other than to stop playing until the other player (e.g., the ganker) goes away. Many MMOs split their servers between PvP (Player vs Player – where players can 'kill' each other's characters), PvE (Player vs Environment – where players cannot generally kill each other) and RP (Role Play – where one might expect people to engage in taking on characters e.g. an elf with a back story, and adopting a specific language e.g. Elvish (for those particularly dedicated) as part of their play). By joining a PvP server there is an explicit acceptance that one's avatar might be 'killed'; however *Ganking* is taken to be 'killing' that is unfair due to the lack of contest and asymmetry of power. It generally (though not always) serves no purpose in terms of game progression and is often done to annoy another player.

## 10.2 Virtuality, Fantasy, and Gameness

As noted above, researchers and academics typically raise three objections to taking MMOs seriously. These are: virtuality, fantasy and gameness. Here we will look at each of these issues in turn and whether they present any solid grounds on which to base the supposition that acts in MMOs are devoid of moral content.

### *10.2.1 Virtuality*

Put simply, the issue of virtuality is the popular rhetorical stance that things that happen in virtual worlds are not 'real'; hence they have no moral content.

A number of writers have challenged the idea that the virtual, in the context of virtual worlds, can be equated with being devoid of moral content. Floridi and Sanders (2001) support the differential treatment of the virtual and the inability of conventional normative ethics to gain a purchase. However, they suggest this is a limitation of theory and not the scope of moral content. To this end Floridi and Sanders add to the ontology of moral acts, coining the term *Artificial Evil* to capture the specific type of harm that can occur virtually.

Brey (1999) suggests two arguments to animate moral content in virtual acts. First he argues that disrespect to 'virtual characters' may lead to a tendency to be disrespectful to humans. This is a position that is close to the so-called Media Effects argument that, according to many writers, is weak both theoretically and empirically (Consalvo 2005). Brey does concede the empirical point. Second, Brey argues that virtual acts have moral content in virtue of the potential for psychological harm that people may suffer from the knowledge that representations of things for which they care are not treated with respect. This reliance on representation also seems a weak argument given the variety of artifact that we might encounter in virtual worlds. However, if we drop the need for identification (a point that is argued for below) and focus on the value that we might place on virtual objects, the argument seems to have some merit.

Huff et al. (2003) distinguish between physical harms and virtual harms that can be created using a virtual world, stressing that both are harms that affect a human being. However, they add that we might also need to consider moral harm between virtual entities.

Sicart (2006) takes a mixed ethical stance to computer games in general, stressing factors such as the phenomenology of the play experience, the intentional stances of actors in respect of it, and the affordances of the game itself as a moral object. That is, the act of playing is a process of making moral choices in a specific context: a process of 'ludic phronesis'.

Other writers have proposed various solutions that rest on some form of denial of any central ontological shift. As a general matter of language and metaphysics Ludlow (2006) suggests that propositions concerning virtual worlds are

metaphysically no different from those about the physical world; they simply have a particular domain over which they are true. Horner (2001) and Powers (2003) both look to convention and language to base their critique.

Powers's (2003) detailed analysis suggests that there are causal links between agent and effect. Powers states that the 'meanings and moral boundaries of behavior [. . .] are constructed from within the practice' (Powers 2003: 195). Here Powers is specifically invoking Rawls (1995) where he defines practice as

> [. . .]a sort of technical term meaning any form of activity specified by a system of rules which defines offices, roles, moves, penalties, defenses, and so on, and which gives the activity its structure. As examples one may think of games and rituals, trials and parliaments (Rawls 1955, fn1).

I believe we should look to MacIntyre (1984) as an alternative source of normativity in practice. Powers (2003) also employs Austin's (1962) concept of speech acts to give metaphysical grounding to virtual acts and their moral content. This analysis however is restricted to social worlds, with *LambdaMOO* and Dibbell's *Rape in Cyberspace* being the cases in question. What's more, Powers (2003) explicitly excludes MMOs for reasons that include the fantasy and game issues we have touched on. In the sections below we will look at why Powers's (2003) exclusion of MMO is unfounded, even on the terms that he defines.

### *10.2.2 Fantasy*

The fantasy elements of MMOs suggest a logic that is internal to some underpinning narrative. We might liken the relation of this fantasy element to ethics, to the situations that pertain when acting. For example, when someone acting as Hamlet kills Polonious on stage, we do not assume that an evil act has occurred, and the actor is not arrested. In our evaluation of the situation, there is a separation between person, character, and text.

Virtual worlds, however, are not quite like this. They are much more akin to having a basic plot structure and improvising within that structure. Read as a text, virtual worlds are what Aarseth (1997) terms *Ergodic*; that is, they are texts that necessitate an active or non-trivial reading. Users of virtual worlds are not subservient to the fantasy element, and to assume that they do not know the difference would, in Consavlo's (2005: 10) words, be an 'infantilization' of the space. As Sicart (2006) notes, this active negotiation of the virtual world is one replete with moral choices – a point to which we will return.

Powers (2003) casts the person/character/space relationship in terms of speech acts, proposing that in the context of social worlds, these speech acts come in two types: transitive performative or t-performative, and reflexive performative or r-performative. T-performative speech acts are ones whereby the characters in the social world are mediating technologies through which a community of practice is built. That is, the virtual world is little more than a communication device through which a community is formed, though no doubt the particular affordances of the

technology have some impact on the way the community is shaped. A t-performative speech act may be something like, 'I've got to go pick the kids up', or a norming act such as 'You should not do that!' (Powers 2003: 196).

R-performative speech acts, on the other hand, are those that are directed at the person (in Powers's (2003) terms, 'controller') as well as other characters. These speech acts come into play when the character is not simply a mediating technology but in some sense a persona, even one that might be a different gender or temperament from the person. For example saying something like, 'She sits down on her throne and gazes at her subjects' would be r-performative in the case that act and objects (e.g., the throne) were virtual. It might also be the case the 'controller' was male and the character was female (indeed the character may not even be human).

Powers states that t-performances establish the 'boundaries and expectations' (Powers 2003: 196) of the community, and r-performances connect the player with the character; this provides a nexus between person and practice. Added to this Rawls's (1955) concept of practices, Powers (2003) provides a justification for virtual acts having moral content even when there is an element of fiction in the characters that people create and interact with. That is, Powers (2003: 195) states:

> we could describe the relationship between implicit rules, expectations, and practices in the following way. When individuals are engaged in a practice, the meanings and moral boundaries of behaviors, understood by them as expectations and implicit rules, are constructed from within the practice.

The argument continues, quoting Rawls (1955), 'In that context, an action like a punishing or a promising "is a performative utterance which presupposes the stage-setting of the practice and the proprieties defined by it' (ibid).

However, in structuring this argument Powers (2003) makes certain assumptions that become criteria for acts having the potential of moral content. These are:

- Acts trade on trust;
- A strong identification with character; and
- Reasonable expectation of behavior.

Turning his analysis to MMOs (as opposed to social worlds such as *LambdaMOO* that are the focus of his analysis), Powers (2003) asserts that none of these conditions are met. This appears to be chiefly in virtue of MMOs' gameness. Not only does Powers deny that the identification condition is met, he states, 'we can only hope that participants of the MMORPG do not increasingly identify with their avatars' (Powers 2003: 198). Thus if we grant Powers's (2003) argument for the moral content of acts in virtual worlds in general, to apply this to MMOs specifically, we then need to show that each of Powers's criteria are met in spite of his own assertions to the contrary.

### *10.2.3 Gameness*

The ostensible purpose of an MMO is game play. The ethics of games is a notoriously difficult area. As noted previously, games are often associated with

the trivial, or at least the non-serious. The aims of any given game seem utterly contingent: getting a counter round a board, getting a ball through one net and not another, delivering a virtual item from one part of a virtual world to another, etc. What's more, games often appear to stand in relation to social norms: poker relies on deception, boxing on hurting an opponent.

As we have noted, Powers (2003) believes that there can be moral content in acts that occur in social worlds, but not in MMOs. In respect of MMOs and moral conduct he states that they '*feature* kinds of deviance' (Powers 2003: 197; emphasis in the original). He goes on to say, 'Role-playing games seem only to share features with a bizarre Hobbesian world, and hence must lack moral relations' (Powers 2003: 198).

It is a mistake to think of MMOs and games in general as utterly contingent or as social spaces where anything goes – this is like confusing boxing with a brawl. Similarly, it is a mistake to think of games as not serious or having purely hedonistic goals (Malaby 2006). At an intuitive level we can see from the fact that any multi-player game that even occurs suggests that there is at the very least some common assumption between the participants as to what the goals and rules of the game are. The fact that people are accused of cheating suggests that at least some people have expectations of adherence to these rules and make normative assumptions about conduct in relation to them. While this is hardly grounds to mount a defense of ethics in games, it is grounds to give the matter serious examination.

In some senses the gameness of MMOs is much like the fantasy element, which we might think of as a form of play. That is, those engaged in game play are not passive. Indeed, players are required for there to be a game; the formal rules and artifacts are not sufficient nor determinative of what the game experience is. The content of an MMO with which people interact to create the experience of the game is polysemic (Consalvo 2005); that is, the encoding of meaning is necessarily incomplete. As Sicart (2006) puts it, players through their acts create meaning and moral content in the phenomenology of game play through the interaction of three elements: the ethics of game design, the game as experience and the player as moral actor. To put this another way, the act of playing a game is a set of moral choices.

I want to suggest further that we can give those acts that seem to be internal to the values of the game appropriate moral weight by understanding them in terms of a practice community (cf. Community of Practice) in a specific socio-cultural context. While games contain contingency, not all aspects of gameness is contingent. The fact that games exist seems common across human cultures. What's more, the types of games that exist in a given culture at a given time, and the bounds and meanings of game acts, seem strongly linked with the culture in which they exist (see, for example: Struna (1989) and Allison (1980) on class and sport; Brailford 1985 on the emerging ethics of pugilism and boxing). As Midgley (1974) points out, society is not indifferent to the differences between games: we cannot simply substitute 'lawn tennis for football'; and as Consalvo (2005) notes, games have a role in the context of the life of the individual. Moreover, MacIntyre (1984) cited games such as football and chess as archetypal of norm generating practices.

In summary, although games appear to be contingent and removed from social context, conduct within the practice of a game is both generative of, and subject to, moral evaluation.

## 10.3 Trust, Identification, and Reasonable Expectations

Given the general defense of games as sites where moral acts can occur (outlined above), I believe that we cannot rule out acts in MMOs as putative moral acts because they occur in a game. What remains then is to look at each of Powers's (2003) criteria and ask if they do pertain to MMOs despite Powers's (2003) reservations. To revise, Powers (2003) suggested that virtual acts could have moral content only in the case that three criteria were met: acts trade on trust, there is a strong identification with character and there is a reasonable expectation of behavior.

### *10.3.1 Trading on Trust*

Powers's (2003) comments on MMOs discussed above suggest that trust is absent. Looking online in general one might make three levels of argument to suggest that the relevant morally motivating trust is absent from MMOs:

1. That virtual environments in general are not spaces where there can be trust;
2. That MMOs in particular are places where there cannot be trust (Powers's (2003) argument); and
3. That the kinds of trust generated in MMOs are not relevant to our analysis; i.e., they do not motivate ethics in the virtual acts under consideration.

### *10.3.2 Can We Trust Online?*

A number of writers have suggested that genuine trust cannot be generated through interactions that occur, and only occur, virtually. The argument generally is that the virtual lacks one or more elements essential to the generation of trust. Nussenbaum (2001) suggests three such elements: lack of identity; lack of personal characteristics; and inscrutable social setting and clear roles (see also Pettit 1995, 2004).

De Laat (2005) has directly challenged these assertions. Focusing on trading communities and 'non task' groups, de Laat (2005) shows that situations of primary trust (where acts make clear that they rely on others and signal expectation that this should motivate behavior on the part of others) and situations of secondary trust (where a group is used reflexively for feedback – seeking respect, admiration etc.) both can and do exist in online communities between 'pure virtuals' (individuals

that have only interacted online). Moreover, there is nothing to suggest that such situations of dynamic reliance should not occur online. However, de Laat (2005) excluded virtual worlds from his analysis due to their use of constructed 'persona'. Thus having established that there can be genuine trust on-line, we need to establish whether it can and does occur in MMOs.

### *10.3.3 Trust in MMOs*

As we have seen above, Powers (2003) and others argue that persona *per se* is not an argument against the construction of trust relations online. De Laat (2005) and to some degree Powers (2003) seem to give too much credit to the degree of identity construction that occurs in the context of MMOs. Indeed, if we look at the work that people put into identity in MMOs as opposed to social worlds like LambdaMOO, there seems to be much less effort put into identity construction. Typically MMO characters are stock types that allow for little customization (though games such as *Star Wars Galaxies* have pioneered character customization). What's more, while early analysis of virtual worlds suggested a rather idealized idea of identity construction (Trukle 1995), more recent work has shown that the bounds of identity construction are much more limited than the initial utopian ideas of cyberspace took into account (see, for example Paasonen 2002; Krzywinska 2005) i.e. one cannot simply take on any identity in a convincing way as many unconscious identity indicators tend to be communicated and perceived online what ever we may consciously try to do.

However, all this theorizing of persona seems to ignore the practice of MMO use. As noted previously, MMOs are ostensibly multiplayer games; and games are, to borrow de Laat's (2005) phrasing, dynamic interactive situations of reliance, i.e., situations that engender trust for successful outcomes. Thus, if we look at how people use MMOs, we can and do see trust relations (Smith 2003). What's more, social structures created by users of MMOs (for example guilds) act to establish and regulate local norms (Jakobsson and Taylor 2003), and peer groups act to constantly create and reinforce local norms (Stromer-Galley and Mikeal 2003), thus institutionalizing trust relations between peers.

### *10.3.4 The Right Kind of Trust?*

In respect of an act having ethical content, I am not sure there can be a wrong kind of trust. We have already discounted the notion of virtual or ludic acts as not being morally relevant. We have also found that trust and situations of mutual reliance are core to the MMO experience. Thus I suggest the trust that we see in MMOs is just that form of trust that Powers (2003) necessitated as a component of the moral composition of virtual acts.

### *10.3.5 Identification*

Powers (2003) uses identification to forge an ethical link between player, persona and acts that occur between these personae. Brey (1999) also sees identification (in this case in terms of representation) as key to virtual ethics. As noted above, the relative degree of identity construction that occurs in MMOs seems, on the face of it, to be lower than that in social worlds.

Here I want to argue three things in respect of MMOs and identification with characters. First, there is a degree of identification with the characters which are created in an MMO. Second, this identification is not only through the reflexive process of persona creation but occurs through the act of engaging with the virtual world via a character. Third, there is an attachment to the internal values of the MMO as a game, and hence as a practice. This is sufficient to make the ethical link that Powers (2003) identifies.

Powers (2003) seems to argue that people identify with their avatar by virtue of reflexive speech acts that have meaning within a community of practice, both for the community and for the individual. Wolfendale (2006), arguing directly against Powers, suggests that not only does this situation pertain in MMOs but that the attachment is morally significant even in those that facilitate PvP (player vs player combat).

Here I think it is useful to look beyond the idea of identification as simply seeing an avatar as oneself. It has been previously argued that people have psychological motivations for using virtual worlds. For example, Bartle (2003) suggests that people use virtual worlds as an exploration of self (see also Joinson (2003) on the use of the Internet an 'identity workshop'; and De Mul (2005) on ludic identity formation). Bartle also writes that there are four main vectors of behavior that users of MMOs exhibit which we can characterize as: Achievers, Socializers, Explorers and Killers (Bartle 1996, 2003). Similarly, Yee's (2002) empirical work suggests that a user's main reasons to 'play' an MMO are: Socialization, Achievement, Immersion, Escapism, and Competition; while Mulligan and Patrovsky (2003) categorize players as Barbarians, Tribesmen, and Citizens.

For further evidence of identification and attachment we might also look to ritual practices that occur in most virtual worlds, such as funerals (Koster 1998) and marriages (the *Star Wars Galaxies* web site include an official Wedding Guide[1]), and the issues that arise when these are brought into the sphere of play (Spaight 2003). Also, there is the simple fact of people's emotions when things that they consider to be outside agreed norms occur to their avatar (Wolfendale 2006). This strongly suggests that an avatar is more than just an instrument. Returning to Sicart (2006), if we suppose that the avatar is necessary to 'preserve that phenomenological experience [of the game]' then it is sufficiently attached to the user to justify an ethical link between persons and virtual practices.

[1] http://starwarsgalaxies.station.sony.com/players/guides.vm?id=80000

The conclusion I believe we can draw from this is that the relationship between user and avatar in a virtual world is more than a simple subject/object one. A cybertheory analysis of this would also be fruitful but is outside the scope of this paper (see Hayles 1999). While selection of character is highly limited in most MMOs, and the affordances of the technology together with psychological factors narrow the scope of identity performance, MMOs are used as sites to explore identity. The performance of identity and attachment with the virtual world is not simply or essentially embodied in one's character, but through every aspect of one's engagement with the virtual world.

### *10.3.6 Reasonable Expectations*

The last of Powers's criteria for virtual acts having moral content is that there should be a reasonable expectation of behavior. As a test, reasonable expectations are difficult to meet both empirically and theoretically. This is especially the case with MMOs.

In the discussions above, we have framed MMOs as games and the activities that occur within them as game-play. As we have noted, in so much as people are engaged in game-play, there must be some minimal level of trust if they mutually succeed in playing a game. We might read from this that there is thus a reasonable expectation of behavior in MMOs.

However, a game is only one way we can frame an MMO (Klastrup 2003). We might equally think of them as communities or customer service relationships or property regimes. Each frame has its merits, and each brings with it a set of assumptions about legitimate bounds of behavior.

Even within the game frame there are broad interpretations of how the game is to be played and the meaning of any given rule – indeed some see this gap between the formal description of a game and any given instance of the game as unbridgeable if it is being used to support a normative description of game practices (McFee 2004). Given this, we might argue that it is quite unreasonable to expect someone to act in certain way, especially taking into account the size of most MMOs, and the fact that we may be playing with a person we have never met before (in-game or out-of-game) and will likely never encounter again.

I believe that we can grant all this and retain our reasonable test.

Virtual worlds have existed since 1979 (Bartle 2003). During this time a range of traditions centered on virtual worlds have been established. These are passed from virtual world to virtual world by a range of actors including the creators (who originally were players of other games and now have been and still are players of other MMOs); early users of the virtual world (such as Beta testers); and players that constantly negotiate boundaries. All of these actors establish an ethos of use through interactions with the given lore and affordances of a virtual world (Bartle 2004).

These traditions form a practice of use of MMOs that encompasses frames such as game and community. The practices and elements such as the technical

affordances of the given MMO, regulatory practices of those running the virtual world, etc., mutually shape boundaries. In respect of the play elements of MMOs, it is within this bounded contingent space that players generate value, as with other, non-virtual, games.

The factor of the heterogeneity of practices across virtual worlds and within any one does not mean that there are spaces where behavior is tightly bounded and expectations are reasonable. Thus before asking if there is a reasonable expectation of behavior, we need to look at the context of the act. Key elements that we might look for are: the range of behaviors across the given MMO in that particular shard or server; whether individuals are in a random pick-up group or a guild organized raid; etc.

What these different circumstances provide are indications of the degree of signaling which has occurred that a given behavior is expected, and the degree of recognition (both implicit and explicit) that an individual has to be given to abide by the expected norms.

Guilds (i.e., self-organized groups of players typically from 10 to several hundred) can have highly prescriptive guides for conduct. So-called 'Social Guilds' such as *Alea Iacta Est* (at the time of writing possibly the world's largest guild) have a typical set of guild rules that effectively say 'be nice to each other', though being nice is detailed over a full page of the guild's web site.[2] Whereas, a so-called 'Raiding Guild' such as *Infinity* has a strict set of rules and a penalty system[3] detailing what software must be used, etc. Such guilds have adopted common practices and system such as Dragon Kill Points (DKP) as a way of distributing proceeds (see Castronova and Fairfield 2007 for a detailed discussion of DKP systems). What's more, the creation and enforcement of these local norms tends to be highly active (Mikeal and Stromer-Galley 2003); hence there are many cases where it is very clear what a local norm is, and that an individual has signalled their acceptance of that.

## 10.4 Application to MMOs

Returning to the two examples of in-game acts explained earlier, we can now see how Powers's (2003) criteria are met in the context of at least some cases of acts in MMOs.

The case of *Ninja Looting* (taking rewards that are usually the result of a group effort outside local rules explicitly or implicitly set by that group) generally

[2] http://wiki.aie-guild.org/index.php?title=Policies_and_Responsibilities

[3] http://guildinfinity.net/web/index.php?option=com_content&task=view&id=22&Itemid=27

meets all the conditions for moral content we established above. The outcome, i.e., the 'loot', has a value that is internal to an MMO; it is generally the product of a group effort where individuals have assumed a level of trust and type of behavior from others. This trust will often have been reinforced through the duration of an activity such as a raid where individuals will play their roles such as *healer* or *tank* in a co-operative fashion. There will typically be an explicit or implicit agreement on reward sharing; in current MMOs this may be facilitated by group loot setting or in-game devises such as the '/roll' command. Hence *Ninja Looting* meets all the criteria we have established and so is a valid candidate for ethical evaluation. This of course is not universal, as on a Role Play server someone playing a Thief might very well loot, which may enrich the role-play experience of all.

*Ganking* (the killing of a lower player by a higher one where there is no question of a contest), however, seems to me to be acts that do not necessarily draw moral sanction. In MMOs that are Hobbesian (to borrow Powers's (2003) term) it would seem that we might have a reasonable expectation for our characters to be randomly killed. Many MMOs split their servers between PvP (Player vs Player – where players can 'kill' each other's characters), PvE (Player vs Environment – where players cannot generally kill each other) and RP (Role Play – where one might expect people to engage in Role Play). By joining a PvP server there is an explicit acceptance that one's avatar might be 'killed'. There are arguments such as those from fair play (Loland 2002) (Butcher & Schneider 2003) to suggest that in any game, if one opponent is much stronger than the other then there is no question of the outcome of the game. Thus one of the basic definitions of game has not been met. To apply this to *Ganking* is to look too narrowly at what is occurring. Fair play applies more properly to the whole enterprise of playing an MMO, not merely a single incidence of play. The player being *Ganked* may have a high level *alt* (alternative character) that they may use to gain retribution on the other player, or they may have guild mates nearby to call on which may result in a chase across the virtual world. All of this, in some MMOs at some times, is accepted as part of the practice of engaging in a PvP MMO; indeed for some players this is the most exciting and engaging part of MMO play.

These examples demonstrate that acts in MMOs, even those that seem only to have meaning within the internal structure of the MMO, can have moral content, but do not necessarily have such content. This is as true for MMOs as it is for social worlds. The pivotal factor in determining whether a virtual act that meets the criteria established above is one that has moral content is the context in which that specific act happens, and expectations that others might reasonably have. As such, we can understand engagement with MMOs as dynamic engagement with a set of communities of practice, ranging from the practice of using virtual spaces in general to those of a tightly organized guild raid. These practices such as Ganking and Ninja Looting and the community's reactions to them variously breathe moral content into the individual decisions made by actors as they perform within a space which is given meaning and value by the mutual engagement of all participants.

## 10.5 Conclusion

In the arguments above I have modified Powers's (2003) criteria for acts in virtual worlds having moral content. The revised set can be summarized as follows:

- Acts trade on trust;
- There is a performance of identity and an attachment with aspects of the virtual world; and
- There are reasonable expectations of behavior in the context of act and circumstances under consideration.

Assuming that this is a necessary and sufficient set of criteria for moral content to obtain, it was argued, and some empirical studies were evidenced that support the proposition, that certain acts in MMOs meet these criteria and thus have genuine moral content.

## References

Aarseth, E. 1997. *Cybertext perspectives on ergodic literature*. Baltimore: Johns Hopkins.

Allen, C. 1996. What's wrong with the "Golden Rule"? Conundrums of conducting ethical research in cyberspace. *The Information Society* 12(2): 175–187.

Allison, L. 1980. Batsman and bowler: The key relation of Victorian England. *Journal of Sport History* 7(2): 5–20.

Austin, J.L. 1962. *How to do things with words*. London: Oxford University Press.

Bartle, R.A. 1996. Hearts, clubs, diamonds, spades: Players who suit MUDs. *Journal of MUD Research* 1(1), June 1996. Retrieved on December 12, 2006, from http://www.mud.co.uk/richard/hcds.htm.

Bartle, R.A. 2003. *Designing virtual worlds*. Indianapolis: New Riders.

Bartle, R.A. 2004. Managing to manage. Presentation at Community Work: Managing Multiplayer Culture, IT University of Copenhagen, Copenhagen, May 2004. Retrieved on December 12, 2006, from http://game.itu.dk/comwork/ppt/Bartle.zip.

Brailford, D. 1985. Morals and maulers: The ethics of early Pugilism. *Journal of Sport History* 12 (2): 126–142.

Brey, P. 1999. The ethics of representation and action in virtual reality. *Ethics and Information Technology* 1: 5–14. Kluwer Academic.

Butcher, R., and A. Schneider. 2003. Fair play as respect for the game. In *Sports ethics*, ed. J. Boxill. Malden: Blackwell Publishing.

Castronova, Edward, and Joshua Fairfield. 2007. Dragon kill points: A summary whitepaper, January, 2007. Available at SSRN: http://ssrn.com/abstract=958945.

Consalvo, M. 2003. 'It's no videogame': Global news media commentary and the second Gulf War. In Level Up Conference Proceedings, November, 2003.

Consalvo, M. 2005. Rule sets, cheating, and magic circles: Studying games and ethics. *International Review of Information Ethics* 1(4): 7–12.

de Laat, P.B. 2005. Trusting virtual trust. *Ethics and Information Technology* 7: 167–180.

de Mul, J. 2005. The game of life. Narrative and ludic identity formation in computer games. In *Handbook of computer games studies*, ed. J. Goldstein and J. Raessens, 251–266. Cambridge, MA: MIT Press.

Floridi, L., and J.W. Sanders. 2001. Artificial evil and the foundation of computer ethics. *Ethics and Information Technology* 3(1): 55–66.

Foo, C.Y., and E.M.I. Koivisto. 2004. Defining grief play in MMORPGs: Player and developer perceptions. In Proceedings of the Advances in Computer Entertainment Technology ACE2004, Singapore, June 3–5, 2004.

Hayles, K. 1999. *How we became posthuman: Virtual bodies in cybernetics, literature and informatics*. Chicago: University of Chicago Press.

Horner, D.S. 2001. The moral status of virtual action. In *Proceedings of the fifth international conference on the social and ethical impacts of information and communication technologies: Ethicomp, ETHICOMP 2001*, ed. T.W. Bynum et al., 226–235. Gadansk, Poland: Technical University of Gdansk.

Huff, C., D. Johnson, and K. Miller. 2003. Virtual harms and real responsibilities. *IEEE Technology and Society Magazine*, Summer 2003, IEEE.

Jakobsson, M., and T.L. Taylor. 2003. The Sopranos meets Everquest – social networking in massively multiuser networking games. *FineArt Forum* 17:8, August 2003.

Johnson, D.G. 1997. Ethics online. *Communications of the ACM, Archive* 40(1): 60–65.

Joinson, A.N. 2003. *Understanding the psychology of Internet behavior: Virtual worlds, real Lives*. New York: Palgrave.

Klastrup, L. 2003. Towards a poetics of virtual worlds: Multi-user textuality and the emergence of story. Ph.D thesis. Retrieved on December 12, 2006, from http://www.klastrup.dk/thesis.htm.

Koster, R. 1998. *A story about a tree*. Retrieved on December 12, 2006, from http://www.raphkoster.com/gaming/essay1.shtml.

Krzywinska, T. 2005. Who's world is it?: Creative play and player presence in world of warcraft. Paper Presented to DiGRA 2005, Vancouver, Canada, June 2005.

Loland, S. 2002. *Fair play in sport*. London/New York: Routledge.

Ludlow, P. 2006. From Sherlock and Buffy to Klingon and Norrathian platinum pieces: Pretence, contextalism, and the myth of fiction. *Philosophical Issues* 16(1): 162–183. Blackwell.

MacIntyre, A. 1984. *After virtue*, 2nd ed. Notre Dame: University of Notre Dame Press.

Malaby, T.M. 2006. *Beyond play: A new approach to games*. Retrieved December 12, 2006, from http://ssrn.com/abstract=922456.

McFee, G. 2004. Normativity, justification, and (MacIntyrean) practices: Some thoughts on methodology of the philosophy of sport. *Journal of the Philosophy of Sport* XXXI: 15–30.

Midgley, M. 1974. The game game. *Philosophy* 49: 231–253.

Mikeal, R.L., and J. Stromer-Galley. 2003. Simulated manners: Mechanisms of social control in an embodied on-line environment, *The Sims Online*. Presentation to AoIR Toronto 2003.

Mulligan, J., and B. Patrovsky. 2003. *Developing online games*. Indianapolis: New Riders.

Nussenbaum, H. 2001. Securing trust online: Wisdom or oxymoron? *Boston Law Review* 81: 635–664.

Paasonen, S. 2002. Gender, identity, and (the limits of) play on the Internet. In *Women & everyday uses of the Internet: Agency & identity*, ed. M. Consalvo and S. Paasonen. Bern: Peter Lang.

Pargman, D., and A. Erissson. 2005. Law, order and conflicts of interesting in massively multiplayer online games. In Proceedings of DiGRA 2005 Conference, Vancouver, Canada.

Pettit, P. 1995. The cunning of trust. *Philosophy and Public Affairs* 24(3): 202–225.

Pettit, P. 2004. Trust, reliance and the Internet. *Analyse und Kritik* 26: 108–121.

Powers, T.M. 2003. Real wrongs in virtual communities. *Ethics and Information Technology* 5: 191–198.

Rawls, J. 1955. Two concepts of rules. *Philosophical Review* 65: 3–32.

Sicart, M. 2006. Computer games players, ethics. Ph.D thesis. Retrieved December 20, 2006, from http://www1.itu.dk/graphics/ITU-library/Internet/Forskning/Phd/PhD_Defences/Dissertations/Dissertation_as_turned_in_MSV.pdf.

Smith, J.H. 2003. Avatars you can trust – A survey on the issue of trust and communication in MMORPGs, game research. Retrieved December 12, 2006, from http://www.game-research.com/art_avatars_trust.asp.

Smith, J.S. 2004. Playing dirty: Understanding conflicts in multiplayer games. Paper presented to AoIR 2004. Retrieved December 12, 2006, from http://www.itu.dk/people/smith/texts/playing_dirty.pdf – Understanding conflicts in multiplayer games, AoIR 2004.

Southern, M.2001. *The cultural study of games: More than just games*. Retrieved December 12, 2006, from http://www.igda.org/articles/msouthern_culture.php.

Spaight, T. 2003. *Who killed Miss Norway*. Retrieved December 12, 2006, from http://dir.salon.com/story/tech/feature/2003/04/14/who_killed_miss_norway/index_np.html.

Stromer-Galley, J., and R.L. Mikeal. 2003. Participant norms, Simulated manners: Mechanisms of social control in an embodied on-line environment, *The Sims Online*. AoIR, Toronto.

Struna, N.L. 1989. The formalizing of sport and the formation of an elite: The Chesapeake Gentry, 1650–1720s. *Journal of Sport History* 13(3) (Winter, 1986).

Trukle, S. 1995. *Life on the screen*. New York: Simon and Shuster.

Wolfendale, J. 2006. My avatar, my self: Virtual harm and attachment. *Ethics and Information Technology* 9: 111–119.

Yee, N. 2002. Mosiac: Stories of digital lives and identities. Accessed March 21, 2010 Mosaic. Available at: http://www.nickyee.com/mosaic/.

# Chapter 11
# The Ethics of Computer Games: A Character Approach

**Adam Briggle**

## 11.1 Introduction

Computer games are a rapidly evolving and growing aspect of contemporary culture. In 2008, U.S. retail sales of computer games topped $21.3 billion, a new industry record and well more than Hollywood's box-office receipts.[1] The upward trend in sales is due in part to growth in online gaming and the portable game market, indicating how pervasively games are becoming woven into the fabric of daily life. Playing computer games is a major activity for youth. Yet many players are adults, and the market includes once under-represented groups such as retirees. Games are becoming more culturally acceptable—changing from "geek to chic" (King and Borland 2003). This growth in gaming has sparked ethical reflection and debate from concerns about violence (see Waddington 2006) to claims that computer games can improve education (see Dostál 2009) or even aid in psychological therapy (see Brezinka and Hovestadt 2007).

In computer games, as in other forms of media, an "alternate reality" is created in which the gamer is immersed. It is comprised of actors, activities, and situations all of which are morally charged. But the most salient ethical issues do not pertain to the actors in the alternate reality. An avatar in *Mortal Kombat* is not really the sort of thing that can suffer and die. Rather, the important ethical consideration is whether and how participation in or exposure to such alternate realities influences primary reality—the world populated with living human beings for whom the stakes of life are real. This seems a particularly pressing consideration with

[1] Worldwide sales are forecast to top $44 billion in 2011. I use "computer games" to designate computer-based gaming systems. I intend this to include video games as well as online and offline computer games. I conceptualize computer games according to the classic game model outlined by Jesper Juul (2005).

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computer games due to the gamers' active involvement in the alternate reality and its increasing verisimilitude.[2]

The relevant question, then, is how best to conceive of and evaluate this traffic across worlds—how the real and the virtual interact and co-shape one another. After setting this question in terms of the "magic circle," I argue that this traffic is often best understood as influences on the character of gamers. The benefits of this approach are its intuitive appeal, wide coverage of issues, and ability to mitigate problems of causality. After offering an account of the key terms "character" and "valuation," I suggest four ways in which they apply to computer games. My aim is not to specify the details of how character and valuations are impacted by computer games. Rather, my goal is to use these terms to better articulate moral intuitions about computer games, thereby promoting improved ethical evaluations and discussions concerning their design, use, and regulation.

## 11.2 Through the Magic Circle

Johan Huizinga (1950) described games as existing outside of normal life—closed off by a "magic circle," the borders of which defined a separate time and space (see Salen and Zimmerman 2004). Game fiction projects another world and game rules carve out an area where they apply. Huizinga described games as separate and unproductive. A game is an activity that has "no material interest, and no profit can be gained from it" (1950, p. 13). To account for gambling, Roger Callois (1961) modified the basic thesis, but the disputes surrounding, for example, the sale of *EverQuest* characters for real money signify that the magic circle has even more porous borders than Callois realized.

Indeed, games pervade our personal lives, culture, and economy. There is a two-way traffic across the borders of the magic circle as game contents and forms are products of wider social dynamics, which in turn are influenced by the games themselves. Henry Jenkins (2003) pictured video games as a storytelling that inhabits a cultural ecology of beliefs, institutions, and signs. Eugene Provenzo (1991) similarly cast computer games as cultural objects that configure societal values. More recently, Miguel Sicart (2009) argued that computer games are ethical objects and computer game players are ethical agents, which means that computer games are situated in a complex network of moral responsibilities and duties.

Jesper Juul (2005) argues that "A game is characterized by the fact that it can *optionally* be assigned real-life consequences" (p. 41). Betting is an example where consequences are *pre*-negotiated. Such optionality does some work in distinguishing games from real-world activities. We cannot make the consequences of politics optional. We could model politics and use it as a basis for a game. But politics itself

[2] See Funk et al. (2004) for evidence that violent computer games may have greater impacts on empathy than other forms of violent media.

is not a game, because it has *non*-negotiable consequences. The stakes, in other words, are real.

Yet, not all consequences of games are optional or consciously pre-negotiated. One obvious example is "after effects," or the way in which the elation of winning or the depression of losing continues after the game is done. Friendships have ended over arguments about a game. We can identify with virtual characters and situations with greater strength than we may consciously admit to or desire. Sports athletes are often heralded as heroes, but not just for their performance in the game world. In fact, for two reasons it has at least as much to do with their character as human beings. First, athletes are often judged by how well they "handle themselves." They are esteemed for demonstrating grace after a loss and for showing humility after a win. Similar traits are often esteemed in computer gaming communities.

Second, cheating is detested for reasons that transcend the game itself. We judge excellence in sports not just by the outcome of games, but also by how the outcome was reached. We care about the character of the athlete, for example, his or her discipline to avoid the temptation of doping and to train everyday. And we care not just because we think it is important to maintain the game rules, but because games are opportunities to cultivate and demonstrate excellence as a whole human being. Achievement in the arena is necessarily connected to one's entire character. This is why many parents encourage their children, perhaps to an extreme, to play sports. They "learn life lessons," as the sport is a cauldron in which to mold a better person.

Juul (2005) claims that computer games retain a stronger border between gamespace and real world than physical games in which the ball can literally fly "out of play." Yet due to the allure of computers and their pervasiveness, this argument does not hold. The computer screen is not a separate reality, but one in which we pour our creative energies, receive signals from our culture, and shape our identities. Computers are entering "the inmost recesses of human existence, transforming the way we know and think and will" (Heim 1993, p. 61). They serve as "digital habitats" in which we live, structuring the way we are (Stefik 1999).[3]

## 11.3 Ethical Approaches to Computer Games

How can we best conceive of and evaluate the traffic across the magic circle? It is here that we need recourse to ethical theory. These theories provide both the evaluative language with which to highlight relevant values and the normative standards by which to judge actions. They sharpen moral vocabulary by indicating reasons why we found ourselves caring in a given situation. They develop a more critical understanding of an issue that aids in navigating dilemmas and clarifying ambiguity. Different theories may highlight different aspects of complex issues,

[3] For other, more recent elaborations of this point see (Bakardjieva 2005; Baym 2002).

and when confronting something as novel as computer games it is prudent to adopt a pluralist attitude and explore several theoretical options. Thankfully, this is happening with the ethics of computer games as ethicists have put forward analyses grounded in virtue ethics, deontology, utilitarianism, and Humean ethics (see Coleman 2001; McCormick 2001; Wonderly 2008).

In the following section, I argue that one good way to theorize the traffic across the magic circle is in terms of influence on character. This expands upon the work of Matt McCormick (2001), who argued that virtue ethics offers the best theory for understanding what is objectionable about engaging in simulated immoral acts in computer games. McCormick makes several valuable critiques of deontology and utilitarianism. But this also forces him to draw too sharp of a distinction between these theories. After all, the utilitarianism of John Stuart Mill (with its qualitative ranking of pleasures) is replete with references to the importance of character and virtue, as when he notes, for example, that it is "better to be Socrates dissatisfied than a fool satisfied" (*Util*. II). Similarly, Immanuel Kant notes that nothing can be called good without qualification except a good will, and that we may be blessed by nature with many talents "but these gifts of nature may also become extremely bad and mischievous if the will which is to make use of them, and which, therefore, constitutes what is called *character*, is not good" (*Fundamental Principles of the Metaphysics of Morals*, first section, emphasis in original).

Furthermore, Hume's moral sentimentalism readily admits of a virtue-based interpretation where the moral life is one of feeling rightly for the given situation and of training certain character traits such as empathy (see Wonderly (2008) for a reading sympathetic to this interpretation). To make the point symmetrical, although the virtue ethics of Aristotle highlights the individual moral agent, it is far from silent on matters of consequences, motivations, and principled actions toward others that are central to utilitarianism and deontology. For example, Aristotle begins with the premise that humans are political animals, and thus the development of virtues simply cannot be understood as the task of an atomistic self remote from the polis. Further, according to Aristotle a virtuous person does not just act virtuously, but does so for the right reasons.

The point of this discussion is this: we must not treat ethical theories as static and wholly distinct warring camps and declare our allegiance to one or the other. It may be more fruitful to follow a thread that runs throughout many theories and use this as the locus for ethical analysis and interpretation. In what follows, I suggest that "character" is one such thread that has much to offer by way of improved insight. In one sense or another and to varying degrees, all of these theories concern themselves with the development of human capacities.[4] These capacities are intrinsically valuable—parents wish for their children to grow into dignified, right-minded, and happy adults. And they are important for navigating social ethical situations in which rules are absent, unclear, or clash.

[4] The hedonic utilitarianism of Bentham is probably an exception to this as it takes as its object simply the maximization of pleasure without any concern for the quality of those pleasures.

## 11.4 Character and Valuation

Let us begin with the obvious kind of interaction between gameworlds and the realworld, namely, the opportunity cost involved. Even if the magic circle were airtight and permitted no cultural influences to leak back and forth between worlds, there would still be the opportunity cost of time spent within this supposedly consequence-free world that could have been spent otherwise. These opportunity costs are ethically significant, because they raise questions about the relative quality of activities. Is it better to spend one's time reading, playing a computer game, watching television, playing with friends outdoors, etc.? Is it better to play certain computer games—perhaps those that are social or require physical activity—rather than others?

Note that this question about the relative quality of activities is important in a derivative sense, because we care not about the activities themselves, but about how they affect those who engage in them. What mixture of activities is most conducive to living rightly and well? The ethics of opportunity cost, then, is really a question about how gaming fits into culture and how that shapes the character of contemporary life. Thus, we can see that "character" has two facets. It pertains both to the character of a culture—its activities and artifacts, which embody a range of values and beliefs—as well as the character of individuals who are stamped with the impress of their culture.

Indeed, it has long been folk-wisdom (now bolstered by science) that "character," understood loosely as one's personality or make-up, comes partly from nature and partly from nurture. Our environments deeply influence who we are. So too do our practices. It would be foolish, for example, to suppose that a Buddhist monk is the same person before and after all those years of training and discipline. It is common to speak of life transforming experiences. In short, there is no impervious, pre-social self. Our environment is partly constitutive of who we are. In the early twenty-first century in developed nations, a major part of that environment is computer games. Especially in cases where one plays games on a regular basis, it would be inconsistent to exempt computer games from this general insight about environments, practices, and experiences shaping who we are. Children are particularly prone to absorb and mimic their surroundings. As is often noted, children are very impressionable.

This basic intuition ties directly to the philosophic tradition. "Character" derives from a Greek word denoting a tool to engrave and derivatively the mark impressed on coins or seals. The term was used as early as the fifth century B.C.E. metaphorically to denote the mark impressed on persons. Aristotle argued that, more than any other type of entity, humans have a nature that is open to and even requires further determinations through behaviors that actualize inherent potencies. At the social level, these additional determinations are called political regimes and cultures; at the individual level they are called character. Character is an integration of human nature and cultural form. Human nature is "oriented toward, in need of, in potency to, character" (Mitcham 2000, p. 131). Aristotle noted that the seed will only sprout

well in well-prepared soil (*Nic*. X, 9; 1179b23-25). Mill also remarked that our higher capacities whither and die if we find ourselves in a society or fulfilling an occupation that is not favorable to their realization (*Util*. II).

Character involves a behavioral aspect (e.g., actions) and a psychological aspect (e.g., knowledge, attitudes, and desires). In the modern world, emphasis is often placed on identity, or the assemblage of traits or qualities that distinguish one from another, thus giving rise to the more common term "personality."[5] For the ancients, however, excellence of character, *êthikai aretai*, is usually translated as "moral virtues," signifying an emphasis not just on individuality but on the qualities or traits that make a person ethically admirable. This addition of a scale of excellence is necessary for evaluating computer games from a character approach. Computer games, like other aspects of new media culture, contribute to the character of culture, the "soil" in which we find ourselves, thereby influencing what we do and how we think, or in short, *who we are*. These influences, then, can be evaluated in terms of their goodness and badness.

One's character is comprised of an assemblage of moral virtues such as integrity, honesty, compassion, and courage, which are well-entrenched and thus form one's identity. Aristotle explains that moral virtue is formed by habit, which shows that "none of the moral virtues is implanted in us by nature, for nothing which exists by nature can be changed by habit" rather "we are by nature equipped with the ability to receive them, and habit brings this ability to completion and fulfillment" (*Nic*. II, 1; 1103a15-25). We are provided with the capacity first, and if we are molded appropriately and train correctly, we later display the virtuous activities.[6]

Individual character is a disposition that provides orientation—on how to live and what to value. A central expression of someone's character, then, is his or her values, or the *valuations* that he or she makes. Character conditions valuations, which in turn inform character through the production and dissemination of culture.[7] Valuation pertains to what someone finds noble or beautiful as well as wrong or base. An important aspect of valuation is devaluation. Those who successfully fake virtue, for example, can get all the rewards of being deemed a virtuous person without actually being virtuous (cf. *Republic*). The difficulty is one of telling the difference between real and simulated virtue. If we cannot tell the difference, then the very notion of virtue becomes devalued. Similarly, if we could not tell the difference between gold and dirt, then gold would be devalued—it would be as worthless as dirt.

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[5] Throughout the twentieth century, discussion of character mostly took place in the social science literature. In *The Psychology of Character* (1928), for example, A.A. Roback defined it as "an enduring psychophysical disposition to inhibit instinctive tendencies in accordance with regulative principles" (p. 450).

[6] See Hursthouse (1999) for an excellent contemporary exegesis and defense of Aristotelian virtue ethics.

[7] This circularity is often seen as a weakness (e.g., Pellegrino 1995). It is, however, more true to life than abstract, universal "systems." Others argue it is totalitarian, relying as it does on the authority of teachers to shape character, rather than rational first principles to guide conduct. I can only here point to the valuable insights developed by Susan K. Allard-Nelson in this regard (2004).

In the case of computer games, devaluation relates to the connection between the ontological status of simulated objects or actions and their intrinsic value. David Waddington (2006) applies devaluation to the case of simulated acts of immorality. The danger is that as computer games increase in verisimilitude, it will become increasingly difficult to differentiate between real transgressions and simulated transgressions. The very idea of wrongness, then, would become devalued. Importantly, he notes this devaluation would happen slowly and imperceptibly, as most changes to character tend to happen. Devaluation means losing sight of qualities that differentiate one thing from another. It is closely related to desensitization, or the notion that repeated exposure to simulations of X inures one to actual instances of X (see Wonderly 2008).

Devaluation is also related to re-valuation. For example, some worry about the tendency for game worlds to portray female characters in stereotypical ways. One concern is that repeated exposure to such simulated female forms may lead to a re-valuation of the natural, given female form. People may begin to prefer the artificial figures to the natural. This could be part of a larger cultural devaluation of the given bodily form as enhancements and cosmetic surgeries are increasingly used, suggesting a de-differentiation: all bodies are seen like virtual bodies, instantly malleable to suite our preferences. Another related issue is glamorization or glorification. For example, the glamorization of warfare depicted by many videogames may contribute to a devaluation of actual war, possibly contributing to the devaluation of life. Indeed, the conduct of war already resembles computer games as actions are often reduced to pushing buttons in a remote location while watching the consequences unfold on a screen.

Yet positive as well as negative appraisals of the impact of media on character are possible. Martha Nussbaum (2001), for example, argues that literature aids in the development of empathy, or an ability to imaginatively reconstruct the experience of one who is suffering. Literature can also train a cosmopolitan character, or one capable of grasping the common humanity of others. U.S. Federal Justice Richard Posner argued that exposure to imaginary violence—whether in *The Odyssey* or *Grand Theft Auto*—plays a positive role in forming the moral character of children by expanding empathy. The strength of such ethical arguments depends on the features of the media in question and even the specific book, play, or game. In reference to Posner's argument, for example, Barbara Kingsolver (1995) notes a relevant distinguishing feature between most works of literature and most computer games. Literature provides an encompassing narrative that sets violence within the context of the lives affected. For computer games in which such a narrative is absent, violence simply brings rewards to the player and is set loose from the human stories that could make its devastating impacts come to life, thereby cultivating empathy.

Character is not only intrinsically important, but it also helps ensure right behavior toward others. Insofar as computer games influence character, then, it seems natural to suppose that they entail consequences for social behavior. McCormick, however, argues that this presents the same causality problem that plagues consequentialist accounts. How can we obtain the evidence to support claims that the activity of playing computer games is causally related to specific

interactions with others? Any direct causal claim about specific actions could never be made. I argue, however, that the character approach does warrant this extension to social interactions in a more general way.

Key to the character approach is an understanding of the self as pliable and constantly changing with new experiences. Character is automatically being shaped within the activity of gaming itself, just as in any other experience. The question is how to account for some experience at time $T_1$ influencing a later interaction at time $T_2$. If, the self is pictured as an impervious essence now at $T_1$ and then at $T_2$ all the while unchanged, then the temporal relation really is a mystery. But if we see changes in character as mediating between these experiences, the mystery is reduced. Later consequences are mediated through or affected by prior influences on one's character. Experiences influence character, especially when they are engaged in repeatedly over long periods of time, and character is simply not separable from one's social interactions.

Some qualifications to the character approach are now in order. First, the claim is not that the causality problem is completely elided, but rather that for most practical purposes there is no need for studies to demonstrate specific causal mechanisms or direct links to specific behaviors. Governments and parents have long set general guidelines regarding access by children to potentially corrupting media without the benefit of any such studies. The implicit guiding principle is most often concerns for the character of culture and the character of the children shaped by it, including how that will be expressed in social behavior. There are widely shared values and intuitions here that simply do not require studies in order to be realized in the form of social policies.

Second, some empirical psychologists have launched an attack, "situationism," on the notion of character as composed of stable, robust, or global traits (e.g., Doris 2002). They claim instead that human behavior is best described as local traits that vary with context. Though this may be an accurate description of much of human behavior, it does not undermine the ideal of moral character as a disposition to act rightly no matter what the circumstance. This research does mean, however, that character may be descriptively understood as a mixture of "local" traits that vary with context and global traits that do not. The implication for the ethics of computer games is that they may impact the character of gamers in a diversity of ways—some effects dissipating when the gaming context is exited and others ramifying throughout life.

Third, as I have stressed with the two senses of the term—individual character and cultural character—a fully formed character approach must recognize the wider cultural ecology in which games are situated. Even avid gamers are influenced by other media and activities. For the most part, the influence of gaming on any given gamer's character will be subtle and formed in complex relations with other influences.

Finally, a character approach is not best suited to all ethical issues raised by computer games. For example, intellectual property right disputes and privacy concerns are most likely not best treated in terms of character. Though it does not apply universally, I suggest in the following section that a character approach can be useful for thinking through the ethics of a wide range of issues generated by computer games.

## 11.5 A Character Approach in Action

In what follows I suggest four ways in which computer games—as simultaneously technologies and cultures—relate to character and valuation. The goal is not to provide a definitive analysis of any issue, but rather to demonstrate how a character approach to computer game ethics can usefully be employed to refine ethical evaluations of a range of issues. What is ethical about these dimensions of a character approach to gameplay is best understood in terms of quality: the quality of our character, of the lives we lead, and the attitudes we adopt toward the world. This is another way to understand the character approach to the ethics of computer games: it draws attention to how gaming influences the quality (type, kind, or character) of our lives.

### *11.5.1 Cognitive Skills*

In the information society, one of the main ways character is discussed is through the rhetoric of cognitive skills. There is widespread valuation of the kind of education that develops the mental skills necessary to compete successfully for jobs in the globalizing high-tech economy (e.g., Friedmann 2005). Unlike the craft economy, in which "skills" refers to the mastery of a particular manual labor, the skills demanded by a dynamic economy are more nebulous. Workers must be equipped with a general ability to creatively adapt, process, and apply new knowledge. For training or cognitive exercise, content matters less than form.

Computer games are commonly held to distract from the serious business of acquiring such skills. They are part of the "entertainment industry," thus sapping the intellectual resources of gamers who are "supine before the false pleasures" of consumption (Strinati 1995, p. 12). But several authors refute this common wisdom, arguing that it inappropriately transfers cognitive models from the consumption of passive old media to the interactive, nonlinear cognition involved with new media. For example, Juul (2005) notes that "Playing a game is an activity of improving skills in order to overcome. . .challenges, and playing a game is therefore fundamentally a learning experience" (p. 5). David Shaffer, in *How Computer Games Help Children Learn* (2006), draws from psychological and pedagogical research to argue that computer games may hold the key to transforming educational systems to meet the demands of a high-tech economy. Shaffer focuses on the character traits of creativity, design, and innovation.[8]

Steven Johnson (2005) makes similar claims in his defense of mass culture. Arguing in terms of form (not content), he claims that video games can enhance

[8] Sandra Calvert (2005) further notes that videogames provide cognitive skills, especially "visual iconic and spatial representation skills" that are "needed to excel in many technical careers" (p. 130).

cognitive faculties. Thus, he argues against the widespread assumption that media can only be good if their content is morally redeeming. Johnson claims that nonliterary media like computer games provide the same cognitive benefits as literary media while honing different mental skills as well.

Skeptics can counter by questioning the overall value of cognitive skills. Perhaps computer games will help us perform better in the global economy, but is human character here not portrayed too narrowly as an information processor? Computer games may help "impress" us into the mould of techno-global capitalism, but how valuable is that goal to begin with? Skeptics may claim that there is an implicit devaluation behind the cognitive skills arguments. In assuming the goal of economic competition, we may lose sight of the difference between this narrow aspect of life and the full flourishing of a human person. Advocates for the redeeming values of computer games, then, would have to broaden their perspective on the meaning of a quality of life and how computer games enhance well-being in a wider sense.

### *11.5.2 Interpersonal Skills and Civic Engagement*

In other words, character pertains to far more than job skills. It also pertains to how we interact with one another. There has been a recent resurgence in the importance of social character. Robert Putman (2000) traced the worrisome trend of individuals becoming disconnected from family, friends, community, and democratic forms of participation. Michael Sandel (2005) made a case that strong civic order relies on strong individual character. Indeed, the globalizing techo-economy increasingly demands civic virtue and substantive public dialogue as it brings cultures into conflict and challenges traditions.

Again, common wisdom has computer games fairing poorly on such wider notions of character. If the widespread negative image above was of the feebleminded dropout, the image here is of the apathetic, infantilized, socially inept nerd. He may save damsels in distress in virtual worlds but be unable to approach an actual woman. She may rescue a cyber-world but she could not tell you how her government works or what is in the news. We can adopt here Neil Postman's critiques of television (1985) and argue that computer games, as a medium, inherently shape dialogue and the way we think. Jonathan Rauch (2006) noted the meager, pre-programmed dialogue of most games, arguing, "State-of-the-art games render action and environment with eerie realism and genuine aesthetic distinction. But their characters are dolls, not people" (p. 80). Many games offer a "stunted environment in which blasting someone's head off is easy but talking to him is impossible" (p. 78).

However, this paints computer games with too broad of a brush. Many online games, for example, foster communities that must co-operate to achieve common goals. Some games even feature chatting as a central element. Many gamers take on leadership roles in *EverQuest*, often to the point of becoming overly-socialized, as they manage people with divergent desires and conflicting ideas

(Taylor 2006). Players' development of moral character occurs through interaction with gaming communities, which often confront morally ambiguous actions and situations together. Some psychological research suggests that mediated relationships like those between players in games can become "hyper-personal," as the increased anonymity provides a safe environment to divulge secrets and form closer emotional bonds (e.g., Walther 1996). Game-worlds can be fruitful places to try out alternative identities, thus potentially increasing one's empathetic capacities (Turkle 1995).

Players can also hone their ideal identity, which could transfer to improved character in the actual world. This is increasingly happening through a genre of video games that examines social and policy issues. For example, *Food Force*, created by the United Nations World Food Programme is designed to educate children about world hunger. Players are humanitarian workers stationed on a fictional famine-stricken island. The popularity of this game (it had four million players worldwide 1 year after its launch) has been fueled in part by the non-governmental organization Games for Change.

Yet skeptics may still contend that another type of devaluation is going on here, one in which the differences between simulated friendships or community and actual relationships are eroded. For example, online communities, especially the issue-specific variety formed in game-worlds, may not foster the same level of commitment and meaning as offline versions. Dean Cocking and Steve Matthews (2000) further argue that mediated friendships, due to the greater level of control involved, cannot form the kind of relational identities essential to strong friendships. In short, even those computer games that foster interaction may be offering substitutes of inferior quality.

### *11.5.3 Artificial Arête*

Another way in which character is valued is in terms of excellent achievements. Games have long served as artificial worlds in which fair rules create ideal conditions for displays of greatness. The Greek term for excellence, *arête*, is the noun corresponding to the adjectives *agathos* (good) and *aristos* (best) and originally denoted the excellence of a brave or noble warrior. It later came to mean civic virtues and moral virtues that define the excellent citizen. Finally, it came to denote the functional excellence of any person, animal, or thing. In this sense, *aretai* or virtues are those qualities which make a person function well in relation to others and to play his or her part in society well. For all of its democratic tendencies, the modern world still esteems the nobility of soul and physical determination that excellent achievements require. We admire athletes who endure hardships under intense pressure to perform. Similarly, we admire great artists tortured by the exacting demands of the muses.

In what sense is successful play of computer games a demonstration of excellence? A *South Park* television episode took up this question. In the show, we first

see a master warrior deftly vanquishing other players through his superior talents. In the next scene, we see that the person controlling this avatar is, in the actual world, not such an admirable character. He is morbidly overweight and "has no life," that is, he plays the game every waking minute. This is a powerful contrast of achieving excellence in the game at the expense of wasting one's life in the actual world. The player was not *really* a warrior. He did not possess any physical skills outside of some digital dexterity to manipulate his keyboard. He did not engage in any physical or mental discipline. His was an artificial *arête*. The same can be said of the popular sports computer games. Gamers win the super bowl every day without every putting on the pads or making a play. Though virtual experiences, such as flight simulation, may help in training, they are not the "real thing." As one article noted about the rise of professional video game leagues: "There's a difference between watching Peyton Manning threading a touchdown pass and watching a gamer control a character doing something onscreen" (Caplan and Coates 2007, p. 61).

What is artificial about the excellence achieved in computer games? Norman Mooradian (2006) argues that virtual objects and activities can "fail to have the properties that ground the value attributions made to them" (p. 674). He takes the example of virtual karate. Because the art of karate is rooted in movements of the body that take years to perfect, it can be said to have an essence.[9] This is in contrast, say, to sex, which Mooradian argues has no such essence, because there is no equivalent training involved to master any specific movements, as its value lies in pleasurable brain states. The notion of essence is the basis of the distinction between appearance and reality, which bears on the intrinsic value of an experience. The virtual body movements bear no relation to the physical bodily movements required for superior performances. Yet, as there are certain "objective" actions that must be carried out in order to achieve excellence in karate, the value it has is necessarily grounded in the body and its physical action. Those partaking in simulated karate games may be disappointed to learn that they are very far from practicing the real thing. If this is the case, then ontological facts about the simulated experience undermine its value. They may nonetheless still enjoy the activity, but this enjoyment would be a "kind of spectator activity. . .with interactivity and immersion thrown in" (p. 683).

Defenders of computer games, however, can point out at least two problems with this argument. First, Mooradian develops a rather narrow definition of *arête*. Gamers do undertake mental exercise in mastering the increasingly difficult challenges crafted by game designers. People who are able to solve spatial game puzzles such as Rubik's Cube are often highly esteemed by those of us who are baffled and quit in frustration. Clearly this is a display of a kind of mental excellence. Second, computer games of the future may incorporate greater ranges of embodied action and force-feedback sensors to monitor precise movements.

[9] Poker, however, can be simulated without losing value, at least in this radical sense, because it is not rooted in the execution of certain physical movements.

In this case, the simulations may approximate the real acts to such an extent that there is no longer anything "artificial" about the *arête* that results from training and competition. Rudimentary versions of such technologies are already on the market and may be further driven by the use of interactive video games in physical education courses and retirement homes.

Mooradian argues that sex is different from karate in part because the criterion of success in the former is based entirely in feeling, or perceptual experience, whereas in the latter there are more objective standards of excellence. In other words, we cannot understand artificial *arête* if we only have recourse to a hedonist account of value as equivalent to perceptions, sensations, or feelings. *Arête* signifies that value stems from the physical and mental capabilities of practitioners of an art: "development to a standard of excellence is the basis of value and the source of satisfaction and enjoyment" (Mooradian 2006, p. 688). Devaluation in this instance would entail losing sight of the difference between the standards set by feeling and those set by perfection. Computer games may democratize excellence—with a few hours of practice anyone can hone a wicked serve in a tennis computer game—but in so doing they may also cheapen its very meaning. *Arête* entails *continentia*, self-control, and *ascesis*, exercise or self-discipline. Its devaluation would stem from *incontinence*, weakness of the will, in the face of the temptation of easy but ultimately shallow achievements.

Yet, it is not clear that computer games will lead to such a devaluation of excellence, in part because the achievements in many games are not in any obvious sense "shallow" or "easy." Indeed, some computer games arguably can provide the objective standards of excellence Mooradian sees as essential to genuine *arête*, especially when it comes to the development of superior mental capabilities. Finally, there is a sense in which excellence is a derivative value based on a prior normative judgment about an activity being worthy of pursuit. We do not, for example, celebrate those who are extremely good at performing an immoral activity. In what sense, then, are computer games worthy sorts of activities in the first place? Should the best gamers be admired as much as the best athletes, musicians, or public servants?

### *11.5.4 The Given and the Created*

Many computer games have the potential to enhance imagination and fantasy. Some have suggested they also engender new art forms and artistic expressions. Ian Bogost (2006) explores the ways in which computer games shift from entertainment (passing the time) to art (transforming our times). Similarly, Heim (1993) sees in computer game players the emerging talent to become new artists, ready to birth the world-transforming potential of virtual reality.

Yet the centrality of creativity in computer games may also have downsides. Importantly, an emphasis on creation and manipulation of artificial (and real) worlds can clash with another important aspect of character: respect for others.

The ethical imperative of respecting others is rooted in the concept of otherness as that which one does not create or appropriate (Levinas 1969). Rather, it is received as *given*—a limit on one's willfulness. A well-rounded character entails respecting the claims of this given otherness, which not only fosters humility and patience, but is also a source of meaning. Computer games may be problematic, then, in fostering an overly manipulative character, especially toward the givens of our own bodies and the natural world.[10]

Jeremy Rifkin (1983) made this argument in regard to biotechnology, suggesting that children will grow up in a world populated with their own artificial creations, which will distort or even erase their relationship to nature. Computer games are directly linked to such concerns about respect for nature insofar as children increasingly spend time playing computer games rather than being exposed to the ennobling qualities of nature (Louv 2005). One such quality is patience, as we wait by the side of a pond for the frogs to emerge or for the snail to chew his way round the mushroom. More indirectly, environmental problems, instruct us in the wisdom of respecting nature. Yet, in *SimCity*, a power-plant can be constructed in minutes. In *Age of Empires II*, villagers can be created with the click of a button. Computer games often provide experiences in which we are everywhere surrounded by ourselves—our own creations that are controllable, instantly disposable, and re-creatable.

But to leave it at this would be an unwarranted generalization. The details of each game matter, as some emphasize control and creativity more than others. Computer games are essentially about following rules—they are not free-form play. Gamers may hone respect for otherness as they repeatedly confront the limits established in the gameworld. Juul further notes that "if we actually play *SimCity*, the experience is one of *not* being able to control a city" (2005, p. 191). Indeed, some games model emergent complexity that can foster humility in the face of forces beyond one's control. An important part of *SimCity*, for example, is learning that actions have long-term consequences. The hastily constructed power plant can cause pollution and other unforeseen effects.

Nonetheless, it is worth considering further the ways in which computer games might be contributing to the devaluation of nature. This particular devaluation would result from the loss of the distinction between artificiality (human created) and reality (natural or given). Its apotheosis would entail the "precession of simulacra" in which the copy replaces the original (Baudrillard 1976). The world itself peels away, leaving only the unbearable lightness of simulacra. As we continue to immerse ourselves in computer games, we risk losing our anchorage in this world. If we cannot find enduring meaning in those virtual worlds, we will need to find moral language to explain the importance of nature's unbidden alterity.

[10] For another interesting take on this idea see Borgmann (1993).

## 11.6 Conclusion

I developed a character-based approach to the ethics of computer games in light of the question concerning traffic across the borders of the magic circle. This approach fleshes out intuitions regarding the threats and promises of computer games as media that work imperceptibly and slowly to influence the attitudes, skills, actions, and valuations of gamers in tandem with the character of the cultures they inhabit. The brief sketches in the last section show that computer games present a mixed normative picture. This is to be expected given their diversity. Positive evaluations focus on the potential of games to not only provide intrinsically enjoyable experiences, but also their instrumental value in developing cognitive and interpersonal skills as well as imagination and creativity. Negative evaluations focus on the potential of computer games to distract us from more worthy pursuits or to devalue moral behavior, personal relationships, excellence, and nature.

## Bibliography

Allard-Nelson, Sunsa K. 2004. *An Aristotelian approach to ethical theory: The norms of virtue*. Lewiston: Edwin Mellen Press.

Bakardjieva, M. 2005. *Internet society: The Internet in everyday life*. London: Sage.

Baudrillard, Jean. 1976. *Symbolic exchange and death*. London: Sage (1993).

Baym, Nancy K. 2002. Interpersonal life online. In *Handbook of new media*, ed. L. Lievrouw and S. Livingstone, 62–76. London: Sage.

Bogost, Ian. 2006. *Unit operations: An approach to videogame criticism*. Cambridge, MA: MIT Press.

Borgmann, Albert. 1993. *Crossing the postmodern divide*. Chicago: University of Chicago Press.

Brezinka, Veronika, and Ludger Hovestadt. 2007. Serious games can support psychotherapy of children and adolescents. *Lecture Notes in Computer Science* 4799: 357–364.

Callois, Roger. 1961. *Man, play, and games*. New York: Schocken Books.

Calvert, Sandra. 2005. Cognitive effects of video games. In *Handbook of computer game studies*, ed. Joost Raessens and Jeffrey Goldstein, 125–131. Cambridge, MA: MIT Press.

Caplan, Jeremy, and Ta-Nehisi Paul Coates. 2007. Tiger. Jordan. Hawk. Wendel? *Time*, February 12, 60–61.

Cocking, Dean, and Steve Matthews. 2000. Unreal friends. *Ethics and Information Technology* 2: 223–231.

Coleman, Kari Gwen. 2001. Android Arête: Toward a virtue ethic for computational agents. *Ethics and Information Technology* 3(4): 247–265.

Doris, John. 2002. *Lack of character: Personality and moral behavior*. Cambridge: Cambridge University Press.

Dostál, Jiří. 2009. Instructional software and computer games: Tools of modern education. *Journal of Technology and Information Education* 1(1): 23–28.

Friedmann, Thomas. 2005. *The world is flat: A brief history of the twenty-first century*. New York: Farrar, Straus and Giroux.

Funk, Jeanne, et al. 2004. Violent exposure in real-life, video games, television, movies, and the Internet: Is there desensitization? *Journal of Adolescence* 27: 23–39.

Heim, Michael. 1993. *The metaphysics of virtual reality*. Oxford: Oxford University Press.

Huizinga, Johan. 1950. *Homo Ludens*. Boston: Beacon.

Hursthouse, Rosalind. 1999. *On virtue ethics*. Oxford: Oxford University Press.
Jenkins, Henry. 2003. Transmedia storytelling. *MIT Technology Review*. Available at: http://wwww.technologyreview.com/articles/03/01/wo_jenkins011503.asp.
Johnson, Steven. 2005. *Everything bad is good for you: How today's popular culture is actually making us smarter*. New York: Riverhead Books.
Juul, Jesper. 2005. *Half-real: Video games between rules and fictional worlds*. Cambridge, MA: MIT Press.
King, Brad, and Joun Borland. 2003. *Dungeons and dreamers: The rise of computer game culture from Geek to Chic*. New York: McGraw Hill.
Kingsolver, Barbara. 1995. *High Tide in Tucson*. New York: Harper Collins.
Levinas, Emmanuel. 1969. *Totality and infinity: An essay on exteriority*. Trans. Alphonso Lingis. Pittsburgh: Duquesne University Press.
Louv, Richard. 2005. *Last child in the woods: Saving our children from nature-deficit disorder*. Chapel Hill: Algonquin Books.
McCormick, Matt. 2001. Is it wrong to play violent video games? *Ethics and Information Technology* 3: 277–287.
Mitcham, Carl. 2000. On character and technology. In *Technology and the good life?* ed. Eric Higgs, Andrew Light, and David Strong, 126–148. Chicago: University of Chicago Press.
Mooradian, Norman. 2006. Virtual reality, ontology, and value. *Metaphilosophy* 37(5): 673–690.
Nussbaum, Martha. 2001. *Upheavals at thought: The Intelligence of Emotions*. Cambridge: Cambridge University Press.
Pellegrino, Edmund. 1995. Toward a virtue-based normative ethics for the health professional. *Kennedy Institute of Ethics Journal* 5(3): 253–277.
Postman, Neil. 1985. *Amusing ourselves to death: Public discourse in the age of show business*. New York: Penguin.
Provenzo, Eugene. 1991. *Video Kids: Making sense of Nintendo*, Cambridge, MA: Harvard Unversity Press.
Putnam, Robert. 2000. *Bowling alone: The collapse and revival of American community*. New York: Simon and Schuster.
Rauch, Jonathan. 2006. Sex, lies, and video games. *The Atlantic Monthly*, November, 76–85.
Rifkin, Jeremy. 1983. *Algeny: A new word—A new world*. New York: Penguin.
Roback, A.A. 1928. *The psychology of character*. London: Kegan Paul.
Salen, Katie, and Eric Zimmerman. 2004. *Rules of play: Game design fundamentals*. Cambridge, MA: MIT Press.
Sandel, Michael. 2005. *Public philosophy: Essays on morality in politics*. Cambridge, MA: Harvard University Press.
Shaffer, David. 2006. *How computer games help children learn*. New York: Palgrave Macmillan.
Sicart, Miguel. 2009. *The ethics of computer games*. Cambridge, MA: MIT Press.
Stefik, Mark. 1999. *The Internet age: Social, legal, and technological challenges for a networked world*. Cambridge, MA: MIT Press.
Strinati, Dominic. 1995. *An introduction to theories of popular culture*. London: Routledge.
Taylor, T.L. 2006. *Play between worlds: Exploring online game culture*. Cambridge, MA: MIT Press.
Turkle, Sherry. 1995. *Life on the screen: Identity in the age of the Internet*. New York: Simon and Schuster.
Waddington, David. 2006. Locating the wrongness in ultra-violent video games. *Ethics and Information Technology* 9: 121–128.
Walther, J.B. 1996. Computer-mediated communication: Impersonal, interpersonal, and hyperpersonal interaction. *Communication Research* 23: 3–43.
Wonderly, Monique. 2008. A Humean approach to assessing the moral significance of ultra-violent video games. *Ethics and Information Technology* 10(1): 1–10.

# Part III
# Games and Gameworlds

# Chapter 12
# Introduction to Part III: Games and Gameworlds

**John Richard Sageng**

We describe what a player does or what she experiences with reference to objects and events in the world of the computer game. This means that when we investigate answers to the questions posed in the earlier parts of this book, such as the nature of play versus serious activity, the content of emotions, the morality of a players actions and the relationship between the player and her in-game avatar, we ultimately encounter the following question: What is the reality status of the objects and worlds the player apparently interacts with in computer games? This question also extends to the status of computer games themselves, since they are systems and programs specially designed to present the player with such objects and events. In other words, what is the nature of the artefacts we call computer games or computer game systems?

These sort of questions bring us into the realm of metaphysical discussion. According to a definition famously associated with Aristotle, a metaphysical enquiry is the study of being *qua* being. It is concerned with explanations of things, not simply under the aspect of being some particular kind of thing, but rather under the aspect of existing as such. One domain of metaphysical enquiry is that of ontology, or the study of the kinds of objects or beings that we must regard as existing at a fundamental level of explanation. Examples of traditional metaphysical issues may be the discussion between idealists and realists about the nature of reality, or the relationship between the mental and the physical. Traditional ontological issues concern such questions as whether substances are the most fundamental kinds of beings, what the relationship is between mental and physical events or whether there are such things as abstract objects.

The central ontological issue that arise in the study of computer games can perhaps be said to arise from the fact that the objects, events and worlds they present us with appear to take an intermediary place between the objects of non-interactive

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media and the objects of the ordinary familiar world outside the game. When a person is playing *Call of Duty,* she herself can get a good shot, and a satisfying feeling of accomplishment from actually winning a game. She can make mistakes and use clever tactics, as well as gain knowledge about how to play. When playing an MMO, she can buy objects in the game and sometimes even convert the game currency to real world currency. Playing a game seems to be different from reading a book or watching a movie about the same sort of events. In these latter cases, there are usually not the same direct sorts of accomplishments, learning, or interaction on the part of the audience itself. Something more is going on in a computer game, which is precisely part of the attraction of playing a game compared with being a mere spectator to someone else's story.

The difference seems to be implicitly felt and commonly articulated by the users of computer games. It appears to have direct consequences for the *mode of being* of the objects encountered in gameplay. In scholarly writing as well as everyday parlance, it is customary to use the term "virtual" or "simulated" to denote this ontological characteristic of the objects and worlds we encounter in visual computer games. This is not, of course, just the case for computer games; it is also found in the imagined and real immerse sensory environments called "virtual reality systems" or parts of the environment that constitute the Internet at large. A related ontological characteristic is the "cyberspace" of networked interactive settings such as the Internet.

In the discussions of game objects and game worlds we conduct in this part of the book, we have tried to avoid putting direct emphasis on approaches that start out with a notion of "virtuality" or kindred notions that implicitly or explicitly assume a separate mode of being, and then proceeds to analyse the phenomena that supposedly exhibit it. The rhetoric around virtuality as a special mode of being stands in danger of obscuring the concrete issues that arise about the relationship between player and object. As an example of this sort of approach we might cite the early book "The Metaphysics of Virtual Reality" by cyber-enthusiast Michael Heim. He proposes that cyberspace is a modern day version of the Platonic world of timeless forms, different in being from the ordinary world in the same way that the ideal world of Plato is different from the world of concrete particulars (Heim 1993: 89). While very suggestive of an alleged difference between "virtual" objects and ordinary objects, this sort of metaphysical proposal is not very useful for assessing, say, the relationship between a player and his avatar, or whether actions performed in such an environment are subject to the same sort of moral evaluations as those outside the game. As one of Heims critics, David Koepsell, notes, this particular sort of metaphysical characteristic is ultimately nonsensical since it involves the claim that abstract objects in separate Platonic realm have spatial features (Koepsell 2000: 23). After all, the objects of a visual environment are not abstract objects like the natural numbers or the class of humans but rather concrete particular that move, change, and are oriented to each other in the same way as the objects in the familiar world.

A natural reaction to such ontological hype is perhaps to deny or shy away from the notion of a virtual or simulated mode of existence. The economist Eduardo Castronova, in discussing the cultural and economic consequences of MMO's,

while apparently acknowledging that they are are not "real" by any means (Castronova 2005: 3), still seeks to replace the notion of "virtual worlds" with the more "precise" notion of "synthetic worlds" and the distinction between inside the gameworld and outside the gameworld with the notions "internal/external" (ibid: 294). David Koepsell himself proposes a clear separation between the enquiry concerned with being *qua* being, and ontology regarded as an attempt to categorize the apparent ordering of objects for a subject matter through observation and language. Such a commonsense ontology should account for the phenomena in a metaphysically neutral manner "without regard to whether or not the objects of our common perceptions are real in some ultimate sense" (Koepsell 2000: 27).

This sort of strategy, however, is unsatisfactory if we want to concretely understand the nature of play in computer games. If the nature of the happenings and experiences during play depend on the mode of being of their objects, it is not very helpful to be told to that they are "synthetic", that we need to distinguish between "internal and external", or that we know how to classify their apparent ordering inside the game. If we want to understand how such things as how experiential phenomena or moral assessments of gameplay differ from those outside the game, it is precisely the question of the mode of being of computer game objects that we must address.

Instead of starting out with the assumption of a "virtual" mode of existence, it might be much more productive to choose the phenomenon of *fictionality* as our point of departure in order to investigate whether user interaction through gameplay has consequences for game ontology. The game theorists Jesper Juul and Espen Aarseth have developed influential views of the reality status of game objects and game worlds that concretely engage the relationship between fictionality and play, thereby providing useful starting points for philosophical analysis.

In Half-Real Juul argues that computer games are hybrids between traditional games and traditional representational non-interactive media. He proposes that play in these games is to "interact with real rules while imagining a fictional world" (Juul 2005: 1). The upshot is that the reality status of computer games is due to the interaction between fictional imagination and rule governed play.

Aarseth likewise provides an argument that the notion of fiction is not sufficient to account for the reality status of game objects. He claims in his discussed paper "The Perception of Doors: Fiction versus Simulation in Games", that the notion of fiction is problematic when it comes to game content, and defends the view that games contain content that must be regarded as "ontologically different" because it can be acted upon in ways that are different from the elements of older media (Aarseth 2005: 59). One of his examples is the difference between a door that is merely painted on as texture and a door you can actually interact with in the game. While the door that is painted on is clearly fictional, the interactive door, because you can engage with it, does not seem to be fictional in the same way. Another example is the difference between a dragon that appears in a literary fiction compared with a dragon you encounter in a game. Aarseth claims that the first dragon is fictional, while the latter is simulated. The former consists, as he says "solely of signs", while the other consists of "signs and a dynamic model", indicating the difference between fictional objects and simulated objects.

Fiction as a phenomenon is found in a number of different media from pictures and literature to sound and speech. It seems that there are no purely formal features of the different forms of expressions that identify them as fictional. A fictional story can be told the same way as a true story, a fictional picture can look the same way as a real picture and a fictional movie can look like a documentary. A number of prominent views have been put forward about which characteristics of a work make it fictional. In the context of speech, simple speech act accounts of fiction hold that creating a fiction does not involve assertion; that is, it does not involve *making claims* but, rather, consists in the act of storytelling rather than asserting. A common approach to the phenomenon of fictionality is found in the notion of *pretence,* and theorists such as John Searle (1975) and David Lewis (1978) hold that authors of fiction are engaged in pretending that something is asserted. Another approach to fictionality makes use of the idea that fictionality is found in the *intentions* of the makers of fiction. Gregory Currie (1990) holds that fictions are tied to the intentions of the makers in causing the audience to make believe what is expressed in virtue of recognizing just this intention.

Kendall Walton's account of fictionality is arguably one the most influential theories and holds that works of fiction are objects that "serve as props in a game of make believe" (Walton 1990). According to Walton, fictions possess the social function of prescribing imaginings and generating fictional truths. This view, in addition to being a powerful and well known articulation of one important approach to fictionality, also has the benefit of not being linguistically oriented, as some of the other conceptions mentioned, so it is easily adaptable to a view of computer games as a special kind of object used for the purpose of prescribing imaginings. (For an overview over approaches to fictionality, see Chap. 14, this volume.)

The opening essay, "Fictionalism and Videogames" by philosopher Grant Tavinor, outlines a view of how and in what sense computer games can be said to be works of fiction. Tavinors central claim is that computer games often are genuine works of fictions. The target of the discussion is Espen Aarseth's aforementioned argument that doors and dragons found in computer games must be regarded as ontologically different from fictional objects. Tavinor argues that their dynamic and interactive nature does not speak in favor of the view that are not fictions, as Aarseth holds. He makes use of Kendall Walton's notion of fictionality as make-believe and claims that the objects in question rather must be understood as props which enable a certain kind of robust and dynamic visual fictions. In other words, the difference Aarseth points to not due to an ontological difference between fictions and simulations, but rather marks a difference between two kinds of fictions. The notion of virtuality, Tavinor proposes, is a legitimate category, but one that cuts across the difference "real" versus "fictional". If the virtual is to be understood as something that reproduces the effects of a real counterpart, interactive representations can be used both for the purpose of fiction as well as for non-fictional depiction. The upshot of Tavinors discussion is that whether or not computer games contains virtuality, the analysis of fictionality in terms of make-believe or imagination does not preclude virtual works from being works of fiction.

In the next essay, we delve deeper into the conception of fictionality on which Tavinor relies in his account of computer games. In "Work Worlds and Game Worlds in Videogames", philosophers Aaron Meskin and Jon Robson defend an analysis of the nature of computer games in terms of Kendall Waltons account of fictionality as make-believe. Meskin and Robson examine how Walton's distinction between "work worlds" and "game worlds" apply to the interactive setting of gameplay. According to Walton, there is a distinction between the imaginings that are prescribed as a *part* of the work, and those that are allowed with regard to how the reader or spectator *relates* to the work. While this is an intuitive distinction, there seems to be a clear difference between computer games and traditional works of fiction like literature, movies or sculpture. Computer games are essentially about the experience of the player himself, and not simply about what she is watching on the screen. Accordingly, Tavinor has claimed that in computer games the distinction between "work worlds" and "game worlds" is blurred. Meskin and Robson take issue with this claim and argue that the distinction between work worlds and game worlds in computer games remains intact. They claim that there still is a distinction between the imaginings that are prescribed as a part of the work, and those that belong to the game world of the player. They propose that computer games in this regard are similar to theatrical plays, in which there are *instantiations* of a work which in particular cases set their own work worlds. Computer games have a similar role in that provide particular instantiations of a work which to a much larger extent allow for particularized work worlds.

The fictionalist understanding found in these essays may allow for further clarification of the ontological status of the objects represented in fictions, and the many subsidiary concerns that follow from that understanding. For example, that the content of computer games is fictional would seem to have an obvious relevance for understanding the moral significance of violent and otherwise objectionable videogames, both because fictional works are appreciated quite differently from real events, and that some of the popular moralism concerning videogames depends on a sloppy equivocation of the ontological distinctions drawn in the essays. In exploring the relationship between computer games and fiction, these two essays may have practical implications for both teaching about videogames and teaching about fiction. Emphasizing the fictionality of typical computer games may encourage game designers to think more seriously about the nature and possibilities of fictionality in videogames and to be increasingly aware of the similarities and differences between videogames and other, more traditional, fictions. More generally, situating videogames in terms of a philosophical theory of fiction makes available a sophisticated body of theory that has been developed to account for other types of fiction. These essays hence provide a bridge between the study of games and philosophical aesthetics, and could tie the understanding of games more closely to theories of other fictive media such as cinema.

After these two essays, we turn to one that is more critical of the notion fictionality, and that provides a philosophical proposal more in line with the diagnosis found in Juul and Aarseth that there is ontologically more to computer games than

fictionality. In "In-Game Action", philosopher John Richard Sageng seeks to determine what actions a player actually performs when they are ascribed to him using an in-game vocabulary. As a prelude he considers the views that the actions in computer game play is directed at producing fictional imaginings changes in virtual objects, and finds that the element of real control implied by in-game action descriptions, as well as the commitment to some real in-game effects cannot be accounted for neither by reference to imaginings nor to objects with a virtual mode of being. Sageng then proposes the novel diagnosis that the element of interaction found in computer games has the semantic effect of converting *represented properties* of fiction or simulation into *real properties* of the graphical shapes. This proposal carries the consequence that the player is performing real actions in a real, although highly artificial, computer generated graphical environment. He outlines how this view offers an account of the nature of the players attitudes toward the happenings in a game, as well as of the interplay between imagination and the real accomplishments that is provided by gameplay. This analysis of game actions as alternations or hybrids between real spatio-visual graphical actions and promptings of imagined actions might provide an analytical distinction that is useful for both game design and game review. It has the consequence that the design of play in a computer game conforms to two typical functions. One function is the construction of real in-game actions that serve as cues or enhancers of prescribed imaginations, and another function is to provide gameplay events that serve as self-standing motivators for action. Conceiving game design in this fashion might offer a perspective from which to facilitate these two functions and to assess how well they are implemented. The distinction furthermore offers an alternative framework for deciding when it is appropriate to assign real normative characteristics to in-game actions, whether it is in the form of blame or appraisal, or in the form of juridical assessments.

We then turn to an essay by philosopher Olav Asheim. Like Sageng, he concentrates on how to analyze linguistic reports of in-game events, and how those bear on the reality status of the gaming environment. In "Reality, Pretence and the Ludic Parenthesis" he develops and defends the idea that objects in videogames are cursivated. He argues that the implied use of a "ludic operator" in such reports in fact mandates a moderate realism about the existence of game objects. He generalizes on the topic of fictionality and considers the wider problem of assigning various sorts of modifications to what is directly reported, like dreaming, make-believe play and the like. Against non-realist and contextualist views, he outlines the notion of pure intentional objects found in the works of Roman Ingarden and defends it as the correct account of the ontological status of game objects. His starting point is that we can quantify out of such contexts, and he sets up the conditions for such transference. Using this analysis, he attempts to show that and how game objects may retain their identity both within and outside of the game. He also considers how objects may go from being unreal to being real, as is the case with virtual currency or fictional languages. His conclusion is that computer games objects do not need to be attributed with a special kind of ontological existence beyond their status as pure intentional objects.

Finally, in "Are Computer Games Real?" semiotician Patrick Coppock raises the question of the nature of computer games as artefacts, defending the view that they can be construed as intangible objects definable by their characteristic semiotic role. He argues that we can conceive of computer games as ontologically real since they embody aspects of three principal types of cultural units – material, immaterial and mediated cultural artefacts. He also contends that the blends of phenomenal experience the player conjure up as she enactively with fictional game worlds are culturally inherited, commonplace types of experience that link up seamlessly with our experiences of other types of material, immaterial and mediated cultural artefacts we interact with from day to day in similar, but nonetheless unique, ways.

In this respect, Coppock claims, all our experiences of blends of material, immaterial and mediated cultural artefacts can be seen as representing different facets of our very rich, culturally constructed, everyday experience of the actual world, the real world, or "reality". These experiences, whatever form they may take, and whatever effects they have on our ways of "being in the world", and our relationships with other beings, human or otherwise – are all, in this particular sense, real.

This particular approach should be relevant for game designers, game programmers, game researchers, educators, and marketing consultants and journalists involved in promoting and writing about games. The perspective should make it possible to learn more about both the real world and ourselves by focusing philosophically and scientifically on how game fictional worlds are experienced, appraised and valorised by players and others they encounter during play, and on what meanings they develop and share regarding the relationship between these experiences and their experiences of interactions with other situations where people engage enactively with other blends of material, immaterial and mediated cultural artefacts, such as when engaging with, thinking and talking about, television programs, films, literature, art, music, organised and informal interactions in urban and other environments.

Coppock's approach may make it possible to learn a good deal more about the inherent nature of computer game worlds and gameplay, as it contains the recommendation to focus on alternative ways of describing and understanding our experiences of, and relationships with, the real world, or reality itself, of which computer games, and their fictional possible worlds are a part.

## References

Aarseth, Espen. 2005. Doors and perception: Fiction vs. simulation in games. Paper presented at Digital Arts and Culture proceedings, IT University of Copenhagen. http://www.statsbiblioteket.dk/search/index.jsp?query=recordBase%3Asb_aleph+%2Bid%3A2892882#/?recordId=sb_2892882&recordId=sb_2892882.

Castronova, Edward. 2005. *Synthetic worlds: The business and culture of online games*. Chicago: University of Chicago Press.

Currie, Gregory. 1990a. *The nature of fiction*. New York: Cambridge University Press.

Heim, Michael. 1993. *The Metaphysics of Virtual Reality*. New York: Oxford University Press.
Juul, Jesper. 2005. *Half real: Videogames between real rules and fictional worlds*. Cambridge, MA: MIT Press.
Koepsell, David. 2000. *The ontology of cyberspace*. Chicago/La Salle: Open Court.
Lewis, David. 1978. Truth in fiction. *American Philosophical Quarterly* 15: 37–45.
Searle, John. 1975. The logical status of fictional discourse. *New Literary History* 6: 319–332.
Walton, Kendall. 1990a. *Mimesis as make-believe: On the foundations of the representational arts*. Cambridge: Harvard University Press.

## Suggestions for Further Reading

Aarseth, Espen. 2005. The perception of doors: Fiction vs simulation in games. In Proceedings of the 6th DAC conference, Copenhagen, December 1st–3rd, 59–62.
Currie, Gregory. 1990b. *The nature of fiction*. New York: Cambridge University Press.
Everett, Anthony. 2005. Against fictional realism. *Journal of Philosophy* 102: 624–649.
Gaut, Berys. 2010. *A philosophy of cinematic art*. New York: Cambridge University Press (especially chapter 5).
Juul, Jesper. 2008. The magic circle and the puzzle piece. http://opus.kobv.de/ubp/volltexte/2008/2455/pdf/digarec01_03.pdf
Lopes, D.M. 2009. *A philosophy of computer art*. London: Routledge.
Meskin, Aaron, and Jon Robson. 2010. Video games and the moving image. *Revue Internationale de Philosophie* 64(4): 547–563.
Schnieder, Benjamin, and Tatjana von Solodkoff. 2009. In defence of fictional realism. *The Philosophical Quarterly* 59: 138–149.
Suits, Bernard. 2005. *The grasshopper: Games, life and Utopia*. Peterborough: Broadview Press.
Tavinor, Grant. 2005. Videogames and interactive fictions. *Philosophy and Literature* 29(1): 24–40.
Tavinor, Grant. 2009b. *The art of videogames*. Oxford: Wiley-Blackwell.
Tavinor, Grant. 2011. Virtual worlds and interactive fictions. In *Truth in fiction*, ed. Franck Lihoreau. Heusenstamm: Ontos Verlag.
Thomasson, Amie. 2005. Ingarden and the ontology of cultural objects. In *Existence, culture, and persons: The ontology of Roman Ingarden*, ed. Arkadiusz Chrudzimski, 115–136. Frankfurt: ontos.
Walton, Kendall. 1990b. *Mimesis as make-believe: On the foundations of the representational arts*. Cambridge: Harvard University Press.

# Chapter 13
# Videogames and Fictionalism

**Grant Tavinor**

## 13.1 Introduction

There is an obvious plausibility to the claim that videogames are fictions or involve fictive elements. *The Elder Scrolls IV: Oblivion* represents a world in which players battle goblins, explore ancient ruins, and collect treasure. In reality I have never done any of these things; rather it seems fictional that I have done so. *Oblivion* appears to be a work of fiction in much the same way as traditional fictive works, in depicting a world that has no actual existence but rather is merely imagined to exist. There may be alternative ways to describe these aspects of videogames, however. In a short conference paper on fiction and virtuality in videogames that has drawn a considerable amount of attention in games studies, games scholar Espen Aarseth claims that some elements of videogames are not fictional, but present virtual or simulated items (Aarseth 2005). The apparent fictive aspects of *Oblivion* referred to above may be *virtual* rather than fictional.

What is the status of the objects represented in videogames: are they virtual or fictional? Are videogames works of fiction? Indeed, exactly what are we committed to if we claim that videogames, or the items depicted therein, are fictions? In this paper I will attempt to assess the thesis that videogames are fictions, arguing there to be strong and modest versions of the claim. I will defend a modest sense of the thesis from arguments of the type forwarded by Aarseth, showing that these arguments depend on various confusions about the nature of fiction. The theory of fiction, developed particularly in the last 25 years within the analytic philosophy of the arts, proves to be very illuminating when focused on videogames. I also offer a conceptual reconciliation that characterises the virtual worlds found in videogames as a representationally and interactively rich species of fiction,

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explaining the intuitions that motivate referring to videogames as depicting virtual items, but not leading us to the perplexing conclusion that the goblins, ruins and treasures of *Oblivion* are not fictional.

## 13.2 Videogames and Fiction

There are a number of potential variations or confusions in the thesis that videogames are fictions. First, we need to distinguish this *videogames as fictional thesis* from the more specific claim that videogames are always instances of the *genre* of *interactive fiction*. It seems increasingly reasonable that the fictions seen in videogames do count as distinctly "interactive" (Tavinor 2009; Lopes 2001; Smuts 2009). The *genre* of interactive fiction, however, is a type of fiction in digital and non-digital media that sets out a branching narrative; the *Choose Your Own Adventure* books popular in the 1980s and the videogame *Zork* being prominent examples. Though it is true that some videogames or aspects of videogames are of this genre form of interactive fiction, it is also clear that most modern videogames that have ostensible fictional elements are not comprised of branching fictional narratives. In *Microsoft Flight Simulator*, one fictionally flies an aircraft; in *Oblivion*, one fictionally battles goblins and vampires. Though there are a number of narratives in *Oblivion*, they do not typically have the branching structure of the interactive fiction genre.

Similarly, to argue that a videogame is a fiction is not to be committed one way or another over its status as a narrative. Of course, the issue of whether or not videogames are narratives has been of particular interest to many games theorists (Murray 1998; Poole 2000). Narrative is a concept that recent writers have used to refer to any number of items, so much so that the term is now apt to strike many readers as being almost vacuous (Livingston 2001). But in a classical sense, narrative—or the near synonym "story"—seems to be a *formal* feature of certain representational artefacts, perhaps amounting to how they structure their content into a temporal arrangement providing a point of view—often, but not necessarily, that of a narrator—that motivates and guides an interpretation of that material. As I will argue later in this paper, the fiction/non-fiction distinction is a fact of the *pragmatics* of how depictive content is used, particularly with respect to what it is meant to refer: in the case of non-fiction, some aspect of the real world, and in the case of fiction, situations with an imagined existence only. Thus defined, narrative and fiction are conceptually distinct in that though there are clear examples of fictive narratives, many narratives are equally clearly not fictional—historical narratives, for example—and some (indeed many) fictions are not narrative in form, an example being a painting of a fictional landscape. Therefore, to claim that a videogame is a fiction is not necessarily to claim that it is also a narrative; the fictive thesis to be argued for here is thus largely independent of *narrativism* concerning videogames.

There are clearly a weak and a strong version of the thesis that videogames are fictions. Though there are certain complications with the following analysis, to be

clarified later, here I will define a *work of fiction* as one in which the characters, places, events, objects, and actions referred to are fictional rather than real. A strong fictive thesis might claim that videogames are *essentially* fictions in that they necessarily depict fictional characters, places, objects, events, and actions. Potentially, one might claim that videogames can be *defined* in terms of their fictive qualities (Tavinor 2009: 23–25). Definition often comes in the form of a set of conditions that are claimed to be necessary and sufficient for an item to count as a member of the defined class. A strong fictive thesis might amount to a definition of videogaming in which it is claimed that fiction is a necessary condition. It need not be argued that this fictive condition is sufficient all by itself to make an item a videogame, and given that fiction is shared with a great many non-videogames this is not something we would ever want to claim. Hence, such a definition might also pick out other necessary features that are *jointly sufficient* to make an item a videogame. But claiming fiction to be a necessary condition of videogaming is still a particularly strong thesis.

Furthermore, it is quite obviously too strong. Phrasing the strong *videogames as fictional thesis* in terms of a necessary and sufficient condition definition gives us an obvious method to refute it: to find a counterexample of an artefact that is a videogame but is nevertheless not a work of fiction in not depicting fictional characters, places, objects, events, and actions. One of the very first videogames, *OXO*, provides such an example. *OXO* is a videogame version of the traditional pen and paper game *tic-tac-toe* and it seems no part of this game that it presents a fiction. Rather, *OXO* is a "transmedial" form of *tic-tac-toe* (Juul 2005: 48). Similarly, videogame chess, *Sudoku*, and solitaire do not seem to present a fiction that one is playing these games in the sense that *Oblivion* presents a fiction that one is fighting a goblin or exploring an ancient ruin. Again, these seem to be transmedial forms of games that originated in non-digital media, that is, real chess, *Sudoku*, and solitaire played in a computer setting. Thus the strong fictive thesis—that videogames essentially involve fictive elements—is immediately prone to refutation; indeed I am just not sure that anyone has been bold enough to assert such a thesis.

In fact, it is simply not necessary to hold the strong thesis in order to argue that videogames are often fictions, or are even usually so. A weakened form of the videogames as fictional thesis might state that while videogames often involve fictive elements, they do not necessarily do so. Videogames are sometimes works of fiction, and sometimes not. Moreover, this modest thesis might claim that if one is to define games, fiction need not count among the necessary conditions. Videogames are clearly not monolithic, but involve a range of structural and media qualities, and engage their players in a number of different ways. The modest fictive thesis allows us to retain the initial plausibility of videogames being fictions, noted in the opening of this essay, but to avoid the obvious counterexamples to the strong thesis.

The weaker thesis, of course, might also be appealing to those who simply doubt that videogames can be defined in terms of a necessary/sufficient condition definition. But equally, it means that offering an example of a videogame, or an aspect

of a videogame, that is not fictional, does not refute the thesis that videogames are sometimes or even usually works of fiction. For this reason, the weak thesis seems very reasonable; indeed, almost unexceptionable. Games theorist Jesper Juul seems committed to some form of the modest thesis, given his use of fiction in explaining how games such as *Simcity*, while not sitting squarely within his "classic games model," count as videogames nevertheless (2005). For Juul, videogames seem to be a game-fiction *hybrid*. Elsewhere I've formalized a similar theory, asserting a weak version of that claim that games are fictions by providing a *disjunctive* definition of gaming where fiction is not counted as essential, but is seen as characteristic of a partial range of videogames (Tavinor 2008; Tavinor, 2009: 15–33).

## 13.3 Fictional vs. Virtual

In his widely discussed paper, Aarseth seems to challenge some form of the fictive thesis by claiming that some of the apparent fictive elements in videogames—dragons, doors, mazes—are not fictional but instead *virtual* items. I should point out here that Aarseth does not acknowledge either the analysis of fictive works or the strong/modest fictive distinction I have described above, so I cannot make conclusions on his behalf. Aarseth's claims are principally about the ontological status of *game worlds* and *objects*, and not videogames as works. Indeed, Aarseth seems happy to see some aspects of videogames as being fictional—though, as we will see, in a rather idiosyncratic sense of "fiction"—and at strongest his claim might be that "the category of fiction is problematic when applied to 'game content'" (2005: 1).

What I want to do here is to develop Aarseth's arguments and question what the arguments themselves really establish concerning the status of videogames as fictions. I think there is the basis in Aarseth's arguments on which to develop a response to even the modest fictive thesis described above. I have claimed that a work of fiction is one in which the characters, places, events, objects, and actions referred to are fictional rather than real. Aarseth's arguments show that there is an alternative way to characterize these ostensible fictional elements of videogames, in that we could refer to the goblins, ruins, and treasures found in *Oblivion* as *virtual elements*. If the aspects of videogames identified in the beginning of the paper and that led to the initial plausibility of the fictive thesis do turn out to be virtual *rather than* fictional, then this would constitute something of a challenge to even the modest thesis. Videogames in this case would not be works of fiction, but virtual works or simulations.

Aarseth argues that "game worlds and their objects are ontologically different from fictional worlds" (2005: 1) by which I take him to mean that the depicted elements in games have a different mode of being to those depicted in fictions like novels and television shows. His argument notes a number of key differences between some depictive elements found in videogames and traditional fictions and infers from these differences that certain videogame elements are not fictional.

Referring to a difference between the dragon Smaug in Tolkien's *The Hobbit*, and a dragon as represented in the videogame *EverQuest*, Aarseth notes that the former "is made solely of signs, the other of signs *and* a dynamic model" (2005: 2, emphasis in the original). It seems clear enough that the claimed difference between Smaug and the dragon in *EverQuest* is here principally in terms of their *representational media*: one is represented through propositions and pictures, and the other through these things and a dynamic 3D model.

Furthermore, because of the dynamic model, the *EverQuest* dragon makes possible a number of modes of engagement that Smaug does not: "Simulations allow us to test their limits, comprehend causalities, establish strategies, and effect changes, in ways clearly denied us by fictions, but quite like reality" (2005: 2). Virtual objects "can typically be acted upon in ways that fictional content is *not* acted upon" (2005: 1, emphasis in original). This claim seems for the most part true, because computer games *do* involve their players in forms of engagement that are quite different to those seen in fictions such as novels and television shows. With a literary work such as *The Hobbit*, our participation with the work is limited mostly to following or interpreting the set of fictive details that comprise a fixed narrative. Such works also call on appreciators to *fill out* the story with imaginative and imagistic detail, perhaps imagining the dragon to have very particular qualities that are not referred to by the fictional work. In a videogame like *EverQuest*, however, we play the game, and in doing so we seem to interact with the dragon depicted therein: we might battle it, run from it, and so on. Moreover, the dragon is more richly depicted that a literary dragon: wondering what the dragon looks like, a videogame player does not have to imagine these facts, rather he might just more carefully inspect the dragon, perhaps by moving around it to get a better view.

I think the argument here is most credibly understood in the following way. In fictions such as *The Hobbit*, the objects are depicted in such a way that they do not allow for the reader to have an effect on the fiction, because for one thing, the depiction is unresponsive. A goblin in *The Hobbit* is depicted by linguistic descriptions, and its qualities are largely fixed by the act of Tolkien's authorship (though, again, readers will no doubt imagine the qualities of the goblin in different ways). Because of the depictive features of the literary goblin, the reader's relationship to the goblin seems distanced and "one way": a reader can read about its qualities, and she may be cognitively or emotionally affected by it—being curious about its qualities, or perhaps disgusted by it—but she cannot *interact* with the goblin. One reason for this is patently clear: the goblin does not really exist, because literary goblins are imaginary goblins. And so, as a number of philosophers have noted, readers and viewers of fictions are *ontologically separated* from the objects and events depicted in fictional worlds; and indeed, this gives rise to certain puzzles about why we react to them as we do, such as how we can have emotions for the characters and events depicted in fictional worlds when we know they do not exist (Radford 1975; Walton 1978).

But in videogames, the media through which objects such as goblins are depicted, including dynamic graphical models, allow players to perform actions on the depicted object, of a kind denied by regular fictions. The player of *Oblivion*

can battle a goblin, and formulate strategies about how to defeat them; indeed, doing so is a prerequisite for performing well in the game given how goblin-filled this particular gameworld is. Moreover, where the non-existence of objects in literary fictions is abundantly clear, in the case of videogames there does seem to be *something* there with which I am interacting: in *Oblivion*, my eyes track the movement of the goblin, and I manipulate my character toward it so that I can strike it with my sword. The interactions which are crucial to the playing of videogames quite clearly demand that there exists *something* with which to interact: and on the evidence of how we describe our interactions with videogames, it is tempting to say that we interact with goblins. If we take this analysis of the situation seriously, then the "ontological gap" that seems so clear in traditional fictions may not exist with videogames and other virtual worlds. That no such gap exists would certainly fit with Aarseth's conclusion that "game worlds and their objects are ontologically different from fictional worlds" (2005: 1).

To emphasize this claim, Aarseth describes a number of virtual artefacts that seem to engage participants in modes of interaction that are denied by their fictional counterparts. In a key example he argues that the *labyrinths* or *mazes* found in computer games often have a real existence that those depicted in fictions do not. The maze depicted in the final part of Kubrick's *The Shining* is clearly fictional, whereas the labyrinth depicted in a game like *Pac Man* is not. This is because the latter depicts a maze that you can actually trace, and your success at playing *Pac Man* demands that you do so while avoiding the ghosts who are also navigating the maze. *The Shining*, however, only presents cinematic glimpses of the labyrinth as a location for the action of the film's narrative. In fictional depictions of mazes, the claim is, the viewer or reader is never presented with a labyrinth she might actually trace, and of course doing so is never a precondition of experiencing the fiction. But if "If a 2D drawing or a painted or tiled floor can be a proper labyrinth [. . .] then a 3D virtual labyrinth in a computer-simulated world is a real labyrinth since it can be navigated by the by the same rules as the one at Hampton Court" (2005: 3). Again, the interactive potential of the videogame artefact is claimed to set it apart from a fictional counterpart.

The final example I will look at here is of virtual doors, and indeed later we will find that it is an ideal example to really grasp the issues here. Aarseth contends that there is a difference between virtual and merely fictional doors. Discussing the first-person shooter videogame *Return to Castle Wolfenstein*, Aarseth notes that "only some of the doors in the game work as doors should. Most of the doors are merely textures on the walls that look like doors, but whose function is purely decorative. Other doors actually do behave in a door-like manner; they can be opened, closed, seen through, walked through and fired through. Clearly, these two types of door are very different. . .." (2005: 3). The purely decorative doors, claims Aarseth, are fictional, while the doors that can be opened and walked through are not fictional doors, but are virtual or simulated doors. Again, the claim is that an interactive difference—the virtual doors *function as doors*, allowing for the egress to other virtual spaces—constitutes a difference that sets these items apart from fictional doors. Fictional doors, for example "the hatch" that constitutes an important part of

the action in the first two seasons of television show *Lost*, cannot be used by viewers of the fiction to access new areas of world that is depicted: the viewer of *Lost* simply looks on passively as the trapdoor is used by the characters within the fiction. Viewers of the TV show are ontologically distanced from the hatch and the fictional world in which it exists.

I think it is clear enough that there is a genuine distinction that has been located in these examples: but Aarseth intends to draw a rather strong ontological conclusion from it, in that the nature of the distinction concerns the "mode of existence" of virtual objects, which he claims is different to the mode of existence seen in both fictional and real items (2005: 4). He concludes that "there are at least three different ontological layers to game content: the real, the virtual and the fictional" (2005: 4). This seems to me a very adventurous conclusion to make on behalf of the representational media of videogames, and it would be easy to dismiss this ontological claim if Aarseth was alone in these strong ontological intuitions. In fact, a significant number of new media theorists have been similarly tempted to claim that virtual worlds have implications for our understanding of ontology, and it is not uncommon to discover claims that virtual items have a unique mode of existence that might alter our conception of what is real (Wertheim 1999; Heim 1993).

## 13.4 Fiction and Prop-Based Make-Believe

Do the depictive and participative features evident in videogames and other virtual items establish that the items depicted therein are not fictional, and hence, that videogames involving such depictions are not works of fiction? Obviously we need some clear idea of what fiction really is. Unfortunately, Aarseth does not supply a clear explanation of what he takes the concept to signify, relying quite oddly on a rather poor definition drawn from *Microsoft Encarta* that takes fiction to be comprised of:

1. novels and stories that describe imaginary people and events; and
2. something that is untrue and has been made up to deceive people (2005: 2).

It is obvious why this definition is tempting for Aarseth. The former clause defines fictions partly in terms of their media (novels and stories) and partly in terms of their imaginary nature. The second defines fictions as lies. Neither seems apt to describing videogames (which are clearly not novels or stories, or lies) and hence videogames are not fictions.

But this, simply put, is an awful analysis of fiction. Aarseth actually begins his paper by criticizing previous theories of games as fiction for using the term *fiction* without qualification, but he then notes that he will "not engage" with fiction theories such as those from Thomas Pavel and Kendall Walton (Aarseth 2005: 1). But this is exactly what Aarseth and others need to do if they are to make a credible claim that videogames or their depicted objects are not fictions. Aarseth is not the only games theorist to have an under-developed theory of fiction: Miguel Sicart's

study of computer game ethics lacks preciseness on the concept, and seems to equate the fiction of a videogame with its "visual" or "narrative" elements (2009: 21, 24–25). Even though his theory has a good deal of detail on the role of fiction in videogames, Jesper Juul's work also lacks a rigorous theory of fiction, equating it, without much detail, with the philosophical notion of possible worlds (2005: 122). Arguably, this lack of a clearly articulated theory of fiction is problematic for the theories developed in both of these works.

The arguments presented in the previous section rest on the assumption that the representational and participative differences seen in videogames motivate distinguishing them from uncontested fictions, implying that fiction is properly characterized by its media and the modes of interaction those media representations support. However, there is clearly a good sense in which *fiction* refers not to works of fiction or their media existence as novels or stories, but to the *imagined scenarios* that are presented by such media artefacts. This indeed seems to be the more fundamental sense of the concept of fiction given that such imagined scenarios are both historically and creatively prior to media instantiations of fictions: simple imaginings and oral stories predate films and novels by many thousands of years, and creative imaginings are ultimately the source of the fictions that find their way into fictive works. Hence, we might give a basic analysis of *fiction* as referring to imagined states of affairs, a sense of the concept that abstracts fiction away from any particular depictive medium. And this analysis would seem to apply to videogames: the nuclear holocaust that is depicted in the post-apocalyptic role-playing game *Fallout 3* does not represent actuality, but has been invented through an act of imaginative creation; likewise the goblins and ogres in *Oblivion* or the characters and city suburbs in *Grand Theft Auto IV*.

Fiction, under this analysis, turns out to be a fact concerning the pragmatics of representation (Tavinor 2009: 38–44). The typical way to show this is to reflect on the fact that a pair of formally identical representation tokens—portrait paintings say—can differ in their status vis-à-vis fiction. Imagine two portraits, one painted to represent a mythical figure such as Odysseus, but based on the sitting of a model, and the second painted to represent the model himself. Perhaps the sitter for the painting of the mythical figure liked the original painting so much that he requested that the painter repeat the effort to depict him dressed in the mythical garb. In this case, there might exist two formally indiscernible paintings, one which depicts a fictional person, and the other depicting a real person in fancy dress. It is not the media or representational form that makes one fiction and the other non-fiction, because they share the representational form of portraiture; rather, it is fact about their intended function that distinguishes them, a fact which surely has to do with what the painter had in mind when producing the artefact: the fictional work is painted to depict a person with an imagined existence only, the non-fictional portrait to depict a person who actually exists. Thus, a pair of formally and perceptually matched items may be fictional and non-fictional depending on their intended functions.

It is this basic analysis of the concept of fiction that is developed in the philosophical theories offered by Walton (1990), Greg Currie (1990), Peter Lamarque (1996), Lamarque and Olsen (1994), and many others working within

the analytic philosophy of the arts. Under these theories, fiction is a classification that depends on the intention with which a depictive artefact is produced and used for the purposes of imagination. Walton argues that fictions engage us in "games of make-believe" that often involve linguistic props such as in novels and short stories, but also involve works of visual art and even sculpture (1990: 63). Likewise, Lamarque points out that there is nothing about the semantic or syntactic structures of fictional representations that make them fictional; rather it is the "fictional stance" that is fostered toward them that determines their fictive status (Lamarque 1996). Many other philosophers have characterized the distinctive nature of our cognitive, perceptual, and emotional attitudes vis-à-vis fictions, though there is naturally a great deal of detail and subtle variation to the accounts (Carroll 1990, 1998; Feagin 1996; Robinson 2007; Scruton 1974).

I have argued elsewhere that Walton's theory of prop-based make-believe is particularly apt for explaining the fictive nature of videogames (Tavinor 2009). Walton argues that the imaginative games that we play, obvious from childhood onward, are often augmented by fictive props that lend the games of make-believe a richness and seeming objectivity they would not otherwise have. He notes that, "The role of props in generating fictional truths is enormously important. They give fictional worlds and their contents a kind of objectivity, an independence from cognizers and their experiences which contributes much to the excitement of our adventures within them" (1990: 42). To take Walton's key example, in a childhood game of make-believe where stumps are meant to represent or stand proxy for bears, a large stump might represent a large (and probably ferocious) bear (1990: 37–39). The stump contributes to the game of make-believe by objectifying various facts of the fictional world that the children imagine; and note that in this example, given the physical nature of the prop, it might even allow of the imaginative game that the bear can be fictionally wrestled if the children decide to grapple with the stump.

In the rather more sophisticated games of make-believe that constitute our grown-up imaginary adventures, props take the form of the linguistic inscriptions, pictures, verbalizations, physical gestures, and sculpted forms that comprise the media of the representational arts. And note that there are already participative variations in the traditional representational arts given the variations in their depictive forms. Novels and plays differ to representational paintings in the extent of their temporal duration. Though it takes some time to view a painting such as *The Rape of the Sabine Women* by Poussin, and to understand its meaning, a novel like David Foster Wallace's *Infinite Jest* unfolds over a significantly greater period of time, and so leads to a quite distinctive mode of participation as a reader incorporates more and more information into her reconstruction of the novel's many details, information that can alter her interpretation over time. Linguistic fictions also demand that appreciators "fill out" the fiction with imagistic detail, imagining for example, the precise appearance of Smaug from the descriptions of the dragon given in *The Hobbit*. Illustrated versions of the book may more strongly guide these imaginings. Peter Jackson's forthcoming movie adaptation will no doubt provide a particularly vivid take on the dragon by employing the modern representational means of CGI, and will require

less in the way of imaginative involvement from the audience. Representational artworks such as sculptures may even demand physical movement from appreciators, as they move in relation to the object to see the full extent of its form. Thus, fictive props come in any number of different media, and it is commonplace that the differences between their media can lead to different modes of engagement in their respective fictions. But in all these cases the events depicted are clearly fictional and the objects are designed with in intention of grounding the imaginative engagement of an audience. This understanding opens the way for concluding that videogames are fictions, but which similarly have a distinctive media that alters their characteristic modes of participation.

In fact, Aarseth warns against the conclusion that these differences merely make videogames a *different kind* of fiction: "Of course, it can be argued that the fictionality of Tolkien's dragon lies in the fact that it simply has no counterpart in reality, and not in the material way it happens to be presented to us in games and stories. In other words, the argument would go, both dragons are equally fictitious, they just happen to be presented in different media" (2005: 2). In response to this, Aarseth notes that simulations can also represent non-fictive things, and that our intuitions about such cases make it hard to sustain the fictive/non-fictive distinction for simulations or virtual items generally. Aarseth notes that many of the events in the first-person shooter *Brothers in Arms: Road to Hill 30* are made up of "documentary" (real) events, but that this game is "ontologically similar, and practically identical" with the videogame *Call of Duty* which is not as closely based on reality, and subsequently to "classify one as fictional and the other as documentary would make little sense" (2005: 2).

Unfortunately, Aarseth's intuitions about this case arise only because he has failed to connect his examples to the relevant cases from fiction and non-fiction. The "documentary" aspects of *Brothers in Arms: Road to Hill 30* that Aarseth thinks distinguish videogames from traditional fictions can also be clearly seen in traditional fictions, and so cannot be a motivation for counting videogames as ontologically different from fictions. The documentary facets in *Brothers in Arms* are comparable to those in traditional fictions such as the James Bond movies which depict real events such as the Cold War, as the material setting of the fiction. Nevertheless, the exact circumstances represented in a movie about Bond are fictional, and hence are part of a work of fiction, because the story is intended not as a retelling of real events but as a telling of events with no real existence. Similarly, the exact events depicted in *Brothers in Arms* are no less fictional for the fact they are set in the context of places and events with a real existence. This is the necessary proviso on my earlier claim that works of fiction are those in which the characters, places, events, objects, and actions referred to are fictional rather than real: it is an unexceptionable fact that fictions also often depict elements that are *conceptually derived* from things with a real existence, both of a general and particular kind: in the first instance they refer to properties or kinds of things with a real existence (war, countries, people), and secondly they refer to individual things with a real existence (the Second World War, Germany, Hitler).

## 13.5 Virtual Fictive Props

The claim here then, is that videogames are fictions, and that their distinctive participative features—which might tempt us to conclude that they or the objects depicted therein are different to fictions—derive from the nature of their computational props. To really explain the participative variations that might have led some to distinguish between videogames and other more familiar fictions, we need to carefully examine the nature of their props.

The fictive props seen in videogames are often *virtual* depictions (Tavinor 2009: 61–85). To see what this means, the concept of virtuality itself needs some analysis. If we look at how the notion of virtuality first entered computer science, we see that the concept calls attention to a functional correspondence between items. *Virtual computers*, which were common in the early days of computing, exist where a computational program is carried out in a non-electronic medium, typically through pen and paper calculations. Because algorithms are *substrate independent*, programs can be carried out in any medium where the functional nature of the program is preserved. Thus, pen and paper operations can instantiate the same computational process that is run on an electronic computer. I have argued elsewhere that this sense of *virtuality* refers to the fact that one object can serve as an interactive proxy for another kind of object because it replicates the functional structure of the target object (Tavinor 2009: 48–51; Tavinor 2011). Indeed, this constitutes one of the core meanings of the concept of virtuality: a *virtual war* is an event that is functionally equivalent to a war, though perhaps not meeting precisely with some material condition of genuine wars (perhaps by being undeclared).

In this sense a *virtual depiction* is a depiction that preserves some functional aspect of its target, and so allows for an interaction of the kind one might have with the target object. The most obvious and illustrative instance of this is the *virtual camera*, a depictive artefact involved in 3D graphics and hence used in many modern videogames. Videogames do not involve actual cameras, rather *virtual camera* is an idiom employed by game designers to describe a key functional aspect of three-dimensional representation. In particular, the virtual camera is crucial in opening up the possibility of three-dimensional spaces, and allowing virtual movement through those spaces. Alongside polygonal 3D objects, the virtual camera is one of the key developments in virtual representation, and illustrates the definition of virtuality given here in that the structures it employs are the algorithmic transformations of various vector functions of a 3D model. This software *function* is apt to be treated as a camera, because these algorithmic geometrical manipulations, and their subsequent display on a 2D screen, can be made to match quite closely the changes that would occur if an actual camera was used to film an actual scene. Subsequently the virtual camera finds a host of first-person, third-person and cinematic uses in videogame depiction.

But, thus defined, the concepts of fiction and virtuality are overlapping rather than conceptually opposed. Because I have explained the virtuality of depictions in terms of the interactive structure of their media, and fictionality in terms of the

pragmatics of representations, it is clear that virtual depictions can represent real *and* fictional items. Take the example of *Google Street View*, an internet application that depicts the topography of real places through the means of photos taken from a camera mounted on a car that is driven through the actual locations, and then stitched together and arranged as a graphical hypertext document with a number of individual 3D scenes. *Street View* is a case of virtual representation because it allows the user to explore a depictive structure in a way that corresponds to the actual exploration of the place represented, because the depictive structure *maps onto* the topography of the real place. Clicking on an arrow modifies the "point of view" of the depiction in a way that corresponds to movement through the depicted city. But the cities that the user can thus *virtually explore* are *real cities*. Indeed, one could imagine a *Street View* version of a fictional place such as Liberty City from *Grand Theft Auto IV*, showing how this virtual depictive application would work equally well with fictional places. The difference, of course, is that the scenes themselves would not be derived from photographs of an actual place, but from video captures of a designed 3D environment.

In videogames, virtuality most often manifests itself where a depiction allows for a kind of interactive involvement that corresponds to an interaction one might have with a target item were it actual, and most often the virtually depicted items are also fictional. It is in these terms that we can address the arguments about virtual goblins, labyrinths, and doors. A goblin in *Oblivion* is a fictional goblin: no such goblin exists. But the media of its depiction are structured in a way that it responds to the interactions of the player. Technically, it is a 3D polygonal model appended with a collection of fictive affordances (Tavinor 2009: 61–85). Hence, virtuality clearly relates to the notion of "affordances" a term that has sometimes been used to describe how videogames allow for player action (Juul 2005; Cogburn and Silcox 2009). The virtual nature of certain videogame depictions derives from the fact that they *afford* various modes of interaction. When one fictionally approaches a goblin in the game, the depictions of the game allow for an interaction that corresponds to an interaction that one might have with an actual goblin (complicated in this case by the fact that goblins *as a kind* are fictional things). Note also that these virtual affordances are often *tagged* with graphical artefacts so as to make their potential for interaction obvious the player: in *Oblivion*, as one gets close to various objects, an icon, such as a cross-hair, appears, signifying the potential for interaction with the object.

Similarly, most labyrinths in videogames are fictional but also virtual. Take the maze-like structures of *Wolfenstein 3D*. The rooms, corridors and Nazis depicted in this game are fictional: no such rooms, corridors or Nazis exist. Nevertheless, the labyrinth in this case is depicted by a 3D virtual model, and a player is able to fictionally and virtually explore the labyrinth because his character's position is depicted by a virtual camera of which he is in control through his input into the controls of the game. Hence, the virtual space can be virtually navigated, and should the 3D maze structure be sufficiently complicated, the player might become virtually (and fictionally) lost.

This example also calls attention to the fact that the props used to depict fictions often do so in virtue of replicating—in a real or virtual way—the properties they

make fictional, because many of the mazes found in videogames are represented by depictions that might themselves quite properly be referred to as mazes. The maze that appears on the screen during the playing of *Pac Man* is, apart from its virtual medium, more or less identical to a maze one might find in a puzzle book: here the functional correspondence derives from the fact that both kinds of maze are comprised of complicated geometrical configurations. But the maze in *Pac Man* is *also* a fictional maze because it is depicted that there are ghosts floating around the maze, and these ghosts are clearly imaginary. Explaining the difference here is that a depiction of a maze might itself count *as a* maze because some mazes are simply depictions, but a depiction of a ghost is never itself a ghost, because ghosts are quite different from depictions: they are spirits of the deceased!

A similar thing occurs in non-virtual fictive media when a real sentence is used to represent a fictional sentence uttered by a movie character, in virtue of its being a real sentence. But this does not mean that the utterance this depicted is not a fictional utterance: it would be truly bizarre if the fictional sentences uttered by Luke Skywalker were not to be counted as fictional because the actor Mark Hamill used real sentences to represent them! The difference between these two examples is located solely in their depictive media: the maze in *Pac Man* is a 2D virtual representation, and as such can be virtually navigated, the sentence in *Star Wars* is linguistic token fixed at the time of the production of the movie, and depicted in such a way that is does not support the interactive functions which actual utterances support. Note however, that in some videogames there *are* what under my theory would count as *virtual utterances*, in the form of the dialogue mini-games in *Mass Effect*, *Fallout 3*, or *Dragon Age: Origins*. In these cases the depictive media of the fictional utterances are functionally defined so that the player can have virtual fictional conversations with the characters of those gameworlds. I've never had a *real* conversation with Moira in the game *Fallout 3*, though my player-character has had a numerous fictional conversations with her (usually about topics such as mole-rats, mines, and radiation sickness).

Finally, and providing another good illustration of the nature of virtuality and its relationship to fiction, are the virtual doors that play an important role in Aarseth's argument. The genuine difference that Aarseth refers to between merely decorative doors and usable doors does not amount to a difference between fictional and non-fictional doors as he contends, but to a difference between fictional doors depicted in a non-virtual way, and fictional doors depicted in a virtual way. There are no real doors whatsoever involved in *Grand Theft Auto IV*, but some of the doors in the game, meeting my analysis of virtuality as those cases where an item might stand as a functional or interactive proxy of its target, allow for virtual use because the depictions are structured in such a way to cue an affordance of entering a new virtual space. Incidentally, this example further illustrates the fact that fictionality and virtuality are distinct categories in that it shows that a single fictional item can be depicted in virtual and non-virtual ways. In the cut-scenes in *Grand Theft Auto IV*, a particular door may be depicted in a non-virtual way in not allowing use. But during the subsequent gameplay, the item may be represented in a virtual way in that it can now be used to exit from the virtual space.

Hence videogames present fictions, but fictions that differ in their media by involving virtual depictions that allow for a kind of participation not seen in most traditional forms of fiction. Though I will not discuss this further here, the virtuality seen in certain videogame elements, because it is defined in terms of a propensity to support the interaction of the player, may be a species of "interactivity," a concept that has come in for increasing recent philosophical discussion (Smuts 2009; Lopes 2001, 2009; Tavinor 2009). Videogames are thus often *virtual fictional works*. Characteristic of such virtual fictions are their rich representational media, their responsive nature, and their consequent interactive opportunities. Aarseth's own account of the relationship is that virtuality is *ontologically distinct* from fiction. In a way he is correct, but he gets the nature of the distinction wrong. The two classifications are not opposed, but somewhat overlapping. This reformulation of the concepts of fiction and virtuality, as deriving from different considerations—media and pragmatics—but being somewhat overlapping in that there are virtual fictions, accounts for the media differences that Aarseth notes, but does not lead us to reject to very strong intuitions that games—with their goblins, dragons, Russian civil wars, and ghosts—are fictional. Videogames, modestly, are sometimes works of fiction, though of a different kind to many traditional fictions.

Ultimately, of course, it is the interactivity and virtuality discussed above that allows the fictions found in videogames to function as games. Indeed, virtual fictions are ideal for situating games because they allow for the depiction of activities that lack the costs of their real counterparts, meeting one of the familiar criteria of games as being separate or isolated from reality (Caillois 1961; Huizinga 1950). Elsewhere I have developed a theory of how the fictional aspects of videogames—in a game like *The Elder Scrolls IV: Oblivion*, the environments, characters, monsters, weapons and so on—provide the content that is structured into the rules of the game (2009: 92–102). In *Oblivion* playing the game is comprised of exploring the environments, trading and conversing with characters, and battling goblins. All of these things are fictional, but they can provide the formal aspects of a game because of their interactive and virtual structure.

## Works Cited

Aarseth, E. 2005. Doors and perception: Fiction vs. simulation in games. Paper presented at the Digital Arts and Culture conference, Copenhagen.
Caillois, R. 1961. *Man, play, and games*. New York: Schocken Books.
Carroll, N. 1990. *The philosophy of horror or paradoxes of the heart*. New York: Routledge.
Carroll, N. 1998. *A philosophy of mass art*. Oxford: Clarendon Press.
Cogburn, J., and M. Silcox. 2009. *Philosophy through video games*. New York: Routledge.
Currie, G. 1990. *The nature of fiction*. Cambridge: Cambridge University Press.
Feagin, S. 1996. *Reading with feeling*. Ithaca: Cornell University Press.
Heim, M. 1993. *The metaphysics of virtual reality*. New York: Oxford University Press.
Huizinga, J. 1950. *Homo ludens: A study of the play element in culture*. Boston: Beacon Press.
Juul, J. 2005. *Half-real: Videogames between real rules and fictional worlds*. Cambridge, MA: MIT Press.

Lamarque, P. 1996. *Fictional points of view*. New York: Cornell University Press.
Lamarque, P., and Stein Haugom Olsen. 1994. *Truth, fiction, and literature*. Oxford: Clarendon Press.
Livingston, P. 2001. Narrative. In *The Routledge companion to aesthetics*, ed. Berys Gaut and Dominic McIver. Lopes. London: Routledge.
Lopes, D.M. 2001. The ontology of interactive art. *Journal of Aesthetic Education* 35(4): 65–81.
Lopes, D.M. 2009. *A philosophy of computer art*. London: Routledge.
Murray, J. 1998. Hamlet on the holodeck. Cambridge, MA: MIT Press.
Poole, Steven. 2000. *Trigger happy: The inner life of videogames*. London: Fourth Estate.
Radford, C. 1975. How can we be moved by the fate of Anna Karenina? Proceedings of the Aristotelian Society, Supp. Vol. 49: 67–80.
Robinson, J. 2007. *Deeper than reason: Emotion and its role in music, literature and art*. Oxford: Oxford University Press.
Scruton, R. 1974. *Art and the imagination*. London: Methuen.
Smuts, A. 2009. What is interactivity? *Journal of Aesthetic Education* 43(4): 53–73.
Tavinor, G. 2008. A definition of videogames. *Contemporary Aesthetics* 6.
Tavinor, G. 2009. *The art of videogames*. Malden: Wiley-Blackwell.
Tavinor, G. 2011. Virtual worlds and interactive fictions. In *Truth in fiction*, ed. Franck Lihoreau. Heusenstamm: Ontos Verlag.
Walton, K. 1978. Fearing fictions. Journal of Philosophy, 75: 5–27.
Walton, K. 1990. *Mimesis as make-believe*. Cambridge, MA: Harvard University Press.
Wertheim, M. 1999. *The pearly gates of cyberspace*. London: Virago Press.

# Chapter 14
# Fiction and Fictional Worlds in Videogames

**Aaron Meskin and Jon Robson**

## 14.1 Introduction

What are videogames? One might attempt to answer that question by providing a definition (Tavinor 2008, 2009: 15–33 adopts this strategy). A little less ambitiously, one might attempt to delimit the significant categories to which videogames (or, at least, paradigmatic example of the kind) belong, in the hopes that establishing those categories will advance our understanding of this new form. In a separate paper (Meskin and Robson 2010) we discuss the relationship between videogames and the category of the moving image—arguing that videogames belong to the medium of the moving image but do not (yet) belong to the art form of the moving image. In this paper we explore the relationship between videogames and the category of fiction. We shall argue that videogames do in fact belong to the category of fiction—more specifically that they belong to the category picked out by Kendall Walton's distinctive account of fiction developed in his *Mimesis as Make-Believe* (1990). That is, we shall argue that videogames are artefacts which have a function of serving as props in games of make-believe (Walton 1990: 11–69). Videogames are, to borrow a coinage from Stacie Friend, *walt-fiction*s (Friend 2008: 154).

Grant Tavinor has discussed the relationship between videogames and Waltonian fictions in a number of places (Tavinor 2005: 32–34; Tavinor 2009: 38–50). But there are a number of aspects of Tavinor's discussion that are problematic and that we shall address in this paper—in the first place, Tavinor seems to mischaracterize Walton's account in a number of places; in the second place, Tavinor incorrectly characterizes videogames as smudging or fuzzing a central distinction

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in Walton's theory (viz., the distinction between work worlds and game worlds). In this paper, then, we shall provide a sharper account of Walton's theory of fiction, explain clearly why videogames are fictions in his sense, and then go on to address the claim that videogames smudge the work world/game world distinction.

It is important to note that establishing that videogames are fictions in Walton's sense would not imply that videogames are fiction in the ordinary sense since the category of walt-fictions is much larger than the everyday category of fictions (Friend 2008: 154). And we take it that the scepticism about thinking of videogames as fictions that one can find in the games literature is primarily concerned with that ordinary or everyday sense of fictionality. (We ourselves are sceptical of that scepticism, but that discussion will have to wait for another day.) Nonetheless, we think that recognizing that videogames are walt-fictions—that they are artefacts that function as props in games of make-believe—sheds important light on this still undertheorized and misunderstood form. In the next section of this paper, we examine Walton's account of fiction and contrast it with other treatments of fictionality that have been presented in the literature. We argue that it should be non-controversial that (virtually)[1] all videogames fall into the category of walt-fictions and that debates over fictionality in game studies presuppose a much less inclusive notion of fiction.

In Sect. 14.3 we offer brief accounts of two broadly ontological distinctions that are crucial to understanding both art and videogames[2]: the work world/game world distinction and the more well-known multiple/instance distinction that is central to our engagement with—and theorizing about—the multiple arts (i.e., the art forms that—like music, theatre and literature—admit of instances rather than mere copies). We will also briefly show that there are work worlds associated not only with works but with some instances of multiple works as well.

In Sect. 14.4 we offer a reconstruction of the reasoning behind Tavinor's claim that videogames smudge the work world/game world distinction. This will involve some interpolation on our part as to the details of Tavinor's account since his discussion of these issues is fairly minimal; nevertheless, we think we understand why he holds that the work world/game world distinction is attenuated in the case of videogames. But in Sect. 14.5 we turn to a discussion of the way the work world/game world distinction *is* manifested in videogames. We show that making this distinction is crucial to understanding a range of phenomena associated with gameplay. In Sect. 14.6 we offer our diagnosis of what has gone wrong.

[1] We can think of no clear instance of a counterexample to the claim that all videogames are walt-fictions, nor can we think of any principled reason why there could not be such counterexamples. The closest thing to a counterexample we can think of would be a pure text game where players are, say, asked to answer a series of general knowledge questions. However, we think it plausible that even in this case players are supposed to imagine that someone is asking them these questions, and even this may be enough to make such games walt-fictions.

[2] We do not assume that these are distinct categories. In fact, we believe that many (perhaps most) videogames are art.

Our suggestion is that both ontological unclarity and a failure to notice the way that videogames are importantly similar to some traditional art forms have led to Tavinor's mistaken belief that videogames challenge the work world/game world distinction.

## 14.2 Fiction and Waltonian Fictions

### *14.2.1 What Is Fiction?*

Readers, audience members and critics commonly make a distinction between the fictional and the non-fictional. Furthermore, they are, by and large, quite good at identifying fictions (both literary and non-literary). Almost no one has trouble identifying *King Kong* as fiction and *The King of Kong: A Fistful of Quarters* (a film about the quest for the world record score on *Donkey Kong*) as non-fiction. But what is it to be a work of fiction or to be fictional? The most obvious suggestions look problematic. We commonly think of fictions as 'made up' in a way that non-fictions are not, but even a little reflection should convince the reader that all sorts of things that are not typically considered fiction are, in some sense, made up (philosophical arguments, pet names for lovers, fabricated scientific data, etc.). The suggestion that fiction has something to do with falsity looks like a non-starter too since plenty of non-fiction is false (think of the content of many outdated science textbooks), and it seems pretty clear that fictions can be true. 'There was an old man who lived in a cottage in a dark forest. . .' would not be out of the ordinary at the beginning of a fiction, but it is hard to see how that bit of the work could turn out to be false. Nor is fiction essentially about the non-existent since plenty of fictions are about real people and things (for example historical fictions such as *A Man for All Seasons*). There are no linguistic, depictive or formal features that distinguish fiction from non-fiction which is why it is possible to make fictions that looks just like non-fictions (e.g., mockumentaries).

Philosophers sensitive to these issues have developed various sophisticated accounts of fiction. *Simple speech act* accounts of fiction hold that fiction making does not involve assertion; that is, it does not involve making claims but, rather, consists in the distinctive illocutionary act of telling a story. *Pretence* theorists, such as John Searle and David Lewis, agree that fictions are not asserted but argue that they are generated by authors and artists engaging in pretending (Searle 1975; Lewis 1978). *Intentional accounts*, such as Gregory Currie's, hold that fictions are composed by generating utterances that are intended to make audience members make believe various contents in virtue of their recognition of the utterer's intention that they do so (Currie 1990).[3] Harry Deutsch's *constructivist* account of fiction

[3] Note that Currie's account is a kind of speech act theory too.

attempts to articulate a defensible version of the 'making up' theory of fiction (Deutsch 2000). The *genre* account, suggested in recent work by Stacie Friend, holds that fiction and non-fiction are best understood as categories governed by various non-defining genre conventions (Friend 2008, 2010). The *functional account*, defended by Kendall Walton, hold that it is not intentions that are crucial to fiction (nor a specific kind of speech act, nor artists' pretence, etc.) but rather how a work functions—in particular whether it functions to prompt games of make-believe (Walton 1990).

It is not our place here to evaluate these various proposals. As should be plain from this brief account, *that* job would take an entirely separate paper—perhaps a book. (An interesting exercise would be to treat each account as characterizing a distinct concept of fiction and then investigate which of those various concepts apply to videogames.) Rather we propose to explore the question of whether videogames belong to the class delimited by Walton's theory of fictions. Firstly because Walton's theory is the most influential and most powerful theory of fiction in contemporary philosophy, secondly because we believe that it is particularly well-suited to explain the fictionality of videogames, and finally because, as mentioned above, there have been explicit challenges to the ability of Walton's account to fully capture all aspects of videogaming.

### *14.2.2 Waltonian Fictions*

What, then, is a fiction on Walton's account (i.e., what is a walt-fiction)? As was mentioned above, Walton holds that fictions (which he also calls 'representations') are 'things possessing the social function of serving as props in games of make-believe' (Walton 1990: 69). Fictions are like toy planes and toy soldiers (in fact those literally *are* fictions on Walton's account), they have the function of prescribing imaginings (e.g., about planes, flights and battles). Moreover, they are *props*, which means that they are responsible for generating fictional truths—the toy plane makes it true in a game of make-believe (i.e., fictional) that there is a plane, and the movie images make it fictionally true that a giant ape is climbing the Empire State Building. For Walton a fiction is *anything* that has the function of serving as a prop in a game of make-believe 'however minor or peripheral or instrumental this might be' (Walton 1990: 72), and it follows from this that Walton's category of fiction is much wider than the ordinary one since all sorts of things commonly counted as non-fiction (e.g., the dialogues of Plato or Berkeley) will count as fictions on his account.

Note that it is *functioning* to prescribe imaginings that is important for Walton. An artefact may, then, count as a fiction even if it was not intended to serve as a prop in a game of make-believe (e.g., Walton (1990: 52) mentions the case of a randomly drawn doodle which happens to look like a face). So although Walton holds that intentions of makers may be relevant in certain circumstances to whether or not something is a fiction (Walton 1990: 91), he does not, pace Tavinor, hold

that 'fiction is a classification that depends upon the intention with which a representation is produced' (Tavinor 2009: 38). In this way, Walton's account differs from those offered by Currie (1990) and Lamarque (1996), and it is misleading of Tavinor to classify them together.

Additionally, Walton explicitly rejects the thesis that Tavinor claims underlies Walton's and other important contemporary theories—that fictions 'depict situations with an imagined existence only' (Tavinor 2009: 40).[4] As Walton writes: 'there is no reason why a work of fiction could not be exclusively about people and things (particulars) that actually exist. Reality can be the subject of fantasy.' And he continues: 'Does the difference consist in the fact that works of nonfiction express truths whereas works of fiction express falsehoods or untruths? No. A fantasy remains fiction even if it happens to correspond to the actual course of events' (Walton 1990: 74). For Walton, fictionality is a matter of how an object functions. It has nothing to do with the existence or non-existence of the situation that object depicts (or otherwise represents).

It is also important for our purposes to say a bit about Walton's account of pictures and pictorial experience. Walton's non-standard account of depiction implies that all pictures—including photographs—are fictions. Walton holds that pictures are like all other representations in that they function as props in games of make-believe. More specifically, pictures function to mandate that viewers imagine of their looking at the picture that they are looking at the object depicted (Walton 1990: 293). What this means, of course, is that almost all videogames—merely in virtue of being pictorial—will count as fictions in Walton's sense.

But Walton's theory of pictures is just as, if not more, controversial than his general theory of fiction. And one could accept the latter theory without endorsing the former; that is, one could hold that Walton is correct in his definition of fiction whilst denying the claim that all pictures, just by being pictures, are fictions.

Videogames, at least all the ones that use pictures, are fictions in Walton's sense if Walton's theory of depiction is correct. In the next section of the paper we argue that videogames are walt-fictions even if Walton's tendentious theory of depiction is rejected.

### *14.2.3 Why Videogames Are Walt-Fictions*

A great deal of debate in the study of videogames has centred around the question of whether videogames are best thought of as belonging to the class of fictions or in some other way; for example, as virtual simulations or as rule-based systems. (Tavinor 2009, chapters 2 and 3 give an opinionated overview of these issues.)

[4] Oddly, Tavinor himself later draws attention to this distinction between Walton's account and his own (2009: 50).

We think, however, that when it comes to classifying videogames there is no reason to seriously question the claim that virtually all, if not all, videogames are walt-fictions. This is not, as we shall see, to claim that those who engage in the aforementioned debate are necessarily wrong or misguided. The debate, as it stands, appears to concern a much less inclusive notion of fiction than that which Walton proposes, and an object's being a walt-fiction is perfectly compatible with its failing to be a fiction in some other sense. (This applies both to the everyday notion of fictionality, if there is such, and to other technical senses.) Further, as was suggested above, it is no part of our claim that these more restrictive notions of fiction are in any way defective or should be abandoned in favour of a Waltonian account. Tavinor and others have suggested that it may be useful to distinguish between fiction and non-fiction videogames (Tavinor 2008), and we do not deny that this may be the case for certain purposes. A games theorist, then, who wishes to argue that videogames are best considered as virtual representations or adaptations of traditional games rather than as fictions (in some non-Waltonian sense) need have no quarrel with the conclusions of this paper.[5] That being said, why do we believe it should be non-controversial that videogames are walt-fictions and that this should be the case even if we exclude Walton's own commitment to the fictionality of all depictions?

Firstly, we take it as incontrovertible that videogames belong to the class of representations. At least we take it that this is incontrovertible if one takes a fairly ordinary notion of 'representation' (i.e., things which 'stand for' or are 'about' other things). But most (arguably all) videogames also belong to the class picked out by the Walton's more technical notion of representation, they are things that have the social function of mandating imaginings in virtue of various principles (Walton 1990: 69). It is surely the case that most videogames serve the purpose of mandating that users imagine various things (e.g. that they are shooting at T-virus infected zombies, making jump shots, delivering a Hadoken to M. Bison or working their way up the crime ladder of Liberty City). Even videogames that serve other functions (e.g., enhancing combat skills, teaching basic mathematics to children) rely on getting their players to imagine various things in order to achieve those additional functions. And, as in ordinary fictional narratives, various principles underlie these mandated imaginings (e.g., if the screen looks a certain way then one is to imagine that a T-virus infected zombie has been dispatched with a shot to the head).

[5] As a matter of fact, as alluded to in our introduction, we do think at least some areas of this debate are misguided and that regarding videogames as fictions, even in a stronger non-Waltonian sense, need not be in conflict with regarding them as belonging to these other classes. Addressing this issue in detail here would take us too far from the focus of this paper, but Tavinor (2009: 44–52) discusses at length how virtuality is compatible even with his own, 'more robust', notion of fictionality (which differs from Walton's in several ways, such as requiring that a representation is fictional only if it represents states of affairs which do not actually obtain).

Further, as we have seen above, Walton treats 'representation' and 'fiction' as interchangeable—at least for certain purposes (Walton 1990: 3). This suggests that—in Walton's sense—most (perhaps all) videogames belong to the class of fictions. Even *Tetris* plausibly involves Waltonian representation. Of course if Walton is right about depiction then this is easy to establish, since the game plausibly involves pictures of tetrominoes and, hence, mandates imagining of one's looking at the display that it is an instance of looking at those tetrominoes spin and stack. But putting depiction aside, it seems to us that when playing *Tetris* one is supposed to imagine manipulating the tetrominoes.[6] If this is right, then even *Tetris* counts as a walt-fiction and not merely in virtue of it involving pictures. Of course, many other videogames (such as the ones alluded to in the previous paragraph) much more straightforwardly belong to the class of fictions since they are clearly designed to engage players' imaginations.

It is important to stress once again how irenic our claim that videogames are fictions in the Waltonian sense is. We claim that one role of videogames is to mandate imaginings. We do not claim that this is the sole, or even most important role, which they play. Hence, one could accept that videogames are walt-fictions while still believing that they are fundamentally rule-based systems[7] or virtual simulations.

## 14.3 Two Ontological Distinctions

### *14.3.1 Work Worlds and Game Worlds*

With fictions come fictional worlds—those nebulous entities composed of (or at least associated with) the fictional truths explicitly or implicitly associated with representations. So, for example, there is the fictional world of *Hedda Gabler* and the fictional world of Hamsun's *Hunger*. What is fictional in *Hunger*, we might say, is what is fictionally true in the world of *Hunger*; e.g., it is fictionally true in the world of *Hunger* that the nameless narrator wanders the streets of nineteenth century Christiania (aka Oslo). Ditto, as Tavinor himself has argued, for videogames (Tavinor 2005: 31–33). There are, at least loosely speaking, fictional worlds associated with *Pac-Man, Bioshock, Command and Conquer 3* and *Grand Theft Auto III*. Each fictional world is associated with what is fictional in those videogames.

[6] What about other examples that Tavinor offers of videogames that are not fictions; e.g., videogame chess and tic-tac-toe (Tavinor 2009: 24)? We think that these are both Waltonian representations and fictions since, e.g., it is plausible that videogame chess mandates imagining that one is manipulating physical chess pieces.

[7] As one anonymous referee suggests.

For our purposes one might identify the fictional world associated with a videogame with the collection of propositions fictional in that videogame.

One of Walton's many significant contributions to the study of fictions is to distinguish work worlds from game worlds. Work worlds are those fictional worlds associated with representational works or fictions (such as the worlds of *Pac-Man*, *Hedda Gabler*, and *Hunger*). But in addition to those work words, there are what Walton calls 'game worlds'—fictional worlds associated with games in which those representations serve as props. That is, in addition to the world associated with *Hunger*, the work itself, there is also the world associated with my imaginative interaction with *Hunger* (Walton 1990: 58–61).

Why talk about game worlds? In short, because there are things made fictional by our interaction with representations that are not fictional in (or according to) those representations. So, for example, it is plausibly fictionally true when we see a production of *Hedda* that we are seeing Hedda herself. And similar fictional truths are generated by other audience members' viewings. But it is not true in the world of *Hedda Gabler* that we or any of the other audience members are seeing her. Rather, Walton suggests, we might say that these fictional truths belong to game worlds—that is, they belong to the fictional worlds generated by our imaginative interactions with the representation (i.e., the games of make-believe we play using the theatrical drama as prop). Similarly, albeit controversially, Walton argues that in the case of responses to horror fictions, it is typically only fictional that audience members fear the monsters that inhabit them (Walton 1990: 241–249). But it is not standardly the case that such things are fictional in the worlds of horror fictions themselves (e.g., it is not true in *Alien* that we are, or were, scared of the monster); rather, these fictional truths are associated with particular acts of engagement with those horror fictions. In short, my fear of the monster is part of the game world associated with my watching of *Alien*—not part of the work world associated with *Alien* itself. Similarly, it may be fictional in the game that we play when we watch *Hedda* (but *not* in the work world associated with the tragedy) that we pity its eponymous heroine.

Among game worlds themselves, we may usefully distinguish between the authorized and non-authorized (Walton 1990: 60). We could, after all, play a game with *Alien* in which we imagined ourselves in love with the monster or imagined that all the characters were puppets. But the function of *Alien* is not to be used in such a way. Game worlds associated with such odd imaginings are unauthorized whereas those game worlds that accord with the function(s) of the representation are authorized.

This allows us to begin spelling out the relationship between work worlds and game worlds. So, for example, there is significant overlap between work worlds and their related game worlds since it is typically the case that what is fictional in a work world is fictional in the game worlds that are associated with it (e.g., it is fictional both in the work world of *Hedda* and the vast majority of *Hedda* game worlds that she burns Lovborg's manuscript). Of course unauthorized game worlds may provide exceptions to the generalization (e.g., if you imagine that the apparent burning of the manuscript is just Hedda's fantasy). So, we should say that work

worlds are (roughly) composed of those fictional truths that are fictional in all *authorized* game worlds (Walton 1990: 60).[8]

But are work worlds only associated with works? We think not. Consider theatrical performances of pre-existing plays. The fictional truths associated with such theatrical performances typically outstrip those associated with the works from which they are made. Nonetheless, the worlds associated with such performances are still work worlds in Walton's sense. They can be distinguished from the game worlds associated with individual audience members' interactions with those performances (for note that audience responses don't typically determine what is fictionally true in a performance). They are work worlds even though the fictional truths that constitute them are not entirely determined by the relevant theatrical work and playwright. The decisions, actions and sometimes the mere appearances of the actors partially determine the nature of the fictional world associated with the performance (or production). So, for example, it may be fictional that Hedda (i.e., the character) is dazzlingly ironic in one production, neurasthenic in another, and melodramatic in a third (Billington 2005). To each production (and arguably each performance) there may correspond a distinct work world. So work worlds are not only associated with works. Performances (and perhaps productions) themselves admit of the work world/game world distinction.

### *14.3.2 Multiples and Instances*

For the sake of brevity and simplicity we will leave MMPORGs aside and focus on single-player and more traditional multi-player videogames.[9] Such games, we suggest, are like musical works, plays and novels in an important way, they are *multiples* which admit of *instances*. This distinguishes them from paintings and sculptures in which the works are themselves instances. Just as we distinguish *Hedda Gabler* from individual performances (i.e., instances) of *Hedda Gabler*, so too it is crucial to distinguish *Grand Theft Auto III* from individual playings (i.e., instances) of *Grand Theft Auto III*. We make these distinctions because *Hedda* (the play) has different properties than individual productions and performances of *Hedda*. For example, a performance of *Hedda* is a datable event with a determinate duration, but the play itself does not seem to be a datable event nor to have a

[8] As indicated, there may be some fairly minor exceptions to the generalization. So, for example, is it true in *every* authorized gameworld associated with a particular production of the play that *someone* (not among the characters in the play) sees and/or hears Hedda? We think the answer is no. But it might be true in all authorized gameworlds. We leave this issue aside as it is irrelevant to the arguments of the paper.

[9] Perhaps certain forms of massively multiplayer online role playing games may be best viewed as single non-multiple artworks composed of, rather than instantiating their individual playings. If so, the case against Tavinor (at least with respect to MMPORGS) would require an entirely separate line of argument to the one we pursue in this paper.

determinate duration. Similarly, it seems that *Hedda* could exist even if no performances of it existed, but this is clearly not true of those very performances. And similar things are true of videogames. *Grand Theft Auto III* and its individual playings possess a range of different modal and non-modal properties: the game could exist without any playings but the playings could not exist without the game, all individual playings are datable but the game is not, and so on.

Note that we are not referring to the particular copies of videogames encoded on CD ROMS, Blu-ray disks, etc. which are roughly analogous to copies of the script of *Hedda* although both of these are instances of multiples too. The former are instances of the encoding of the game, the latter are instances of an exemplar or model (for discussion see Davies 2003: 159–163).

Many philosophers will be tempted to talk of types and tokens here, but we need not invoke this tendentious way of talking. For our purposes, we need only the distinction between multiples and their instances whatever the relationship between those turns out to be.

## 14.4 Smudging the Work World/Game World Distinction?

In a recent article, Grant Tavinor has claimed that 'the distinction between work-worlds and game-worlds that is so clear in traditional narrative fictions is beginning to smudge with the focus on videogames' (Tavinor 2005: 34). We dispute this claim. Videogames differ from many (but by no means all) other representations with which we are familiar in allowing for actions by agents other than their creators to directly determine the nature of relevant work worlds. But videogames do not thereby smudge (or 'fuzz', as Tavinor also puts it) the distinction between work worlds and game worlds.

Tavinor initially describes Walton's work/game world distinction sympathetically—so, for example, he states that 'when we are tempted to frame ourselves in reference to fictional worlds through linguistic reports, it is the game-world about which we are making fictional statements' (Tavinor 2005: 33).

But, claims Tavinor, when it comes to videogames and other interactive fictions, things are ultimately not so clear. Why? Well, in the ordinary case there is a clear distinction between the game world and the work world. In particular, self-referential fictional truths of the game world (e.g., that we are seeing Hedda, that we are frightened of the green slime) are typically not fictional truths of the work world. As was mentioned above, only things that are true in all authorized games are true in the relevant work world. And we do not see Hedda in every authorized game associated with the play.

However, this sharp distinction breaks down in the case of videogames because 'players contribute to the truths of the work-world of videogames' (ibid.). Player characters make 'many new things fictionally true of that fictional world' including things about their role in that world. So 'the game-world of the [videogame] fiction interposes on the work-world.'

In brief, the smudging or blurring that Tavinor sees arises from the way in which players may affect work worlds through their actions and responses rather than just affecting game worlds. This appears to him to be radically different from the case of ordinary fictions and/or representations where audience actions and responses are typically isolated and ineffectual with respect to the work world.

In the following section we shall outline some cases which show that a clear work world/game world distinction is maintained when considering video games.

## 14.5 The Work World/Game World Distinction in Videogames

Let us look, then, at some cases in which truths in the game world and those in the work world diverge. Simple cases of this may arise where there is a mismatch between what a player sees and what his/her avatar sees. So, for example, if a player sees the back of his/her avatar's head during gameplay, then (especially if Walton is right about depiction) it is plausibly fictionally true in the game world that he/she sees his own avatar. But it is, at least typically, the case that there is no character in the world of the game who sees the back of the avatar's head; hence there is work world/game world asymmetry. Similarly when playing *Command and Conquer 3* players imagine themselves to be looking down on the battlefield, but it is not true in the game that anyone surveys events from such a birds-eye position. Note that this latter example *does not* rely on Walton's tendentious account of depiction since we have not stipulated that the case involves imagining of one's looking at the game display that it is looking at the battlefield. Rather, all we need to assume is that proper imaginative engagement with the work involves imagining seeing the battlefield simplicter. Of course, even this may be contentious. However, we think there are also other examples of work world/game world divergence.

In *Resident Evil: Code Veronica* a cut scene reveals that the villain of the piece Albert Wesker has dispatched some Enhanced Hunters (horrific reptilian creatures) to kill the player's avatar, Chris Redfield. After this takes place the player's subsequent interaction with the fiction—manoeuvring Chris along dimly lit corridors pervaded by suspicious noises—authorises the game world fiction according to which the player is afraid that Chris will be killed by the Hunters. Of course, the player need not engage with the work world in this way, they might take all manner of other attitudes towards the hunters killing Chris (for example, desiring it or being indifferent to it); however, it is clear that it is only the fear-attitude fiction that is authorised. Some evidence for this being the authorised fiction can be seen if we think about the genre to which *Resident Evil* belongs.

*Resident Evil* belongs to a sub-genre of horror, specifically survival horror, and clearly fits Noël Carroll's criteria for the horror genre, presenting the monstrous threats the player encounters as both dangerous and repulsive (they are also 'impure' and 'incomplete' in Carroll's sense) (Carroll 1990). Horror, Carroll

argues, is designed to generate fear and disgust (ibid.).[10] *Resident Evil*, as an example of horror, is then properly understood to be the sort of thing that is designed to generate fear (among other things). Or, if Walton's analysis is right, it is properly understood to authorize games of make-believe in which players are fictionally frightened. But these authorised game world fictions have no work world equivalents. There is no character in the work world that is fictionally afraid of such a thing; Chris was not privy to the events of the cut scene and Wesker desires rather than fears that outcome. In order, then, to make sense of player fear, we must appeal to game worlds rather than simply a work world.

It could be objected that this example's involving a non-interactive cut scene prevents it from serving as a clear cut counterexample to Tavinor's claim. It may be that one ought to treat the 'in game' elements of a video game differently from those that are non-interactive, and that Tavinor's claims are meant to only apply to the former. We doubt that the distinction between those propositions made fictional by cut scenes and those made fictional by interactive gameplay is as clear cut as this objection assumes. For example, in the case we use above it is largely in post cut scene gameplay that the divergence of game and work world attitudes occurs, though in part this divergence is caused by the events of a cut scene. At any rate, we need not deal with this problem in order to make our point and will turn now to some further cases where this complication is removed.

A similar disparity between work world and game world may be seen in Tavinor's own example of *Grand Theft Auto III* (Tavinor 2005). A player's interactions in the videogame—for example, murdering prostitutes after making use of their services—may make it fictional that the player is ashamed of their actions, while the work world represents the avatar as indifferent to or even exalting in these misdeeds. Perhaps, the unrepentant behaviour of the player's avatar in the work world even increases the likelihood of the player's being guilty in the game world. Of course it could be argued that those interactions with *Grand Theft Auto III* where it becomes fictional that the player feels guilty for their avatar's actions are unauthorised. There are reasons to be doubtful of this interpretation since *Grand Theft Auto III* is a more complex and, hence, better work if player guilt is authorized in such circumstances, and this gives us some reason to interpret it that way.[11] But we admit this is arguable. So, we will now turn to a further example which avoids the problems of the last two cases.

In the recent first person games *Bioshock and Bioshock 2* the player is given the choice of either freeing the little sisters, children who have been enslaved in order to harvest the game's power source ADAM, or else killing them in order to claim for themselves the ADAM the little sisters have harvested. The game is set up so as the

[10] We shall ignore Carroll's dispute with Walton over the precise status of these emotions. Though, as we will see below, the account of emotional attitudes towards fiction one adopts can be highly relevant to these debates.

[11] The assumption in play here is that creators aim at making artistically valuable games. If this is right, the fact that some interpretation presents the work in better light than another gives us defeasible evidence in favour of the former interpretation.

player's decision as to whether to kill the little sisters or not is what determines whether their avatar is good or evil and also unfolds in such a way that taking the 'evil' choice of killing the little sisters is clearly intended to elicit guilt (or at least quasi-guilt) in the player. Now, that the game is designed to elicit these emotions (i.e., guilt or quasi-guilt) is somewhat harder to establish than in the *Resident Evil* case since we do not have a background theory about the role guilt plays in any well-known artistic genre. This is because traditional non-interactive fictions designed to elicit guilt are exceedingly rare (though perhaps not unheard of—the film *Man Bites Dog* is a likely example). However it is clear that much of the game's set up, from the music to the exquisitely rendered facial animations, is intended to portray the little sisters as sympathetic characters and authorise the fiction that the player feels guilty for killing them. In Walton's terminology, then, killing a little sister will often make it fictional in the game world that the player feels guilty for their actions, but there is no hint that in the work world the player's avatar feels any such guilt. Indeed, the very actions which make it fictional in the game world that the player feels guilty are the ones which make it fictional in the work world that the player's avatar is a selfish and callous individual, indeed exactly the sort of person who would feel no guilt over such actions.

A final worry is that all these examples rely on Walton's account of our affective engagement with fiction, for if one believes that we ordinarily have full-fledged non-fictive emotions directed at fictional characters then there will be no need to appeal to game worlds to make sense of players' fear for Chris, or their guilt at their avatar's reprehensible actions. We could simply claim that, rather than fictionally feeling these emotions in the game world, they genuinely feel the emotions in question but focus these on fictional goings on. So, we will look finally at a range of examples where this complication is removed.

The three examples we looked at above all concern a particular, and currently rather dominant, genre of games where the player takes on the role of a particular character (their avatar) and guides them through the narrative of the game. In this type of game it is easy (though we think ultimately incorrect) to imagine that whatever is fictional of players in (authorised) game worlds will be true of their avatar in work worlds. There are, however, other gaming genres in which it is easier to see the game/work world distinction. The strategy RPG *Disgaea 3* follows the story of Mao and his minions as they attempt to usurp his father's position as overlord of the netherworld. In parts of the game the player controls Mao in a manner very similar to the avatar cases described above. In other sections of the game, though, the player does not merely control Mao but is able to control an entire squad (composed of up to ten characters) at a single time. Players can give specific orders to each of their character, and often control more than one of them as part of a single manoeuvre. For example, the player may have two characters team up to attack an enemy or four characters cooperate to throw a fifth across the battle map. It is clear then that the player imagines themselves as giving orders to their squad and that they imagine, for example, that they are commanding a squad member to attack using her sword. Further, such imaginings are clearly part of an authorised game world, and it is difficult to imagine a player who properly engages

with the work but does not partake in these kinds of imaginings. It is not, however, fictional in the work world that anyone plays this role of controlling the squad or has the ability to coordinate the strategies and actions they employ in this way. The player does not, for example, play the role of Mao commanding his squad. It is not fictional that Mao is always shouting orders to his squad while fighting or that they would all obey such orders even if he did (team cohesion in the story is not especially high). Further players can continue commanding their squads even when Mao is incapacitated during a battle. So, it is fictional in game worlds that players control the squad during various battles and coordinates their strategies as they try to defeat their enemies, but it is not fictional in the work world (of the game itself or any of any token playing of it) that anybody performs this role. The same applies to many strategy games,[12] and similar effects can be seen in other genres such as team sports games.

## 14.6 Clearing Up the Work World/Game World Distinction

The work world/game world distinction appears to be just as robust in the case of videogames as it is in more standard forms of representation. So what has gone wrong with Tavinor's reasoning? Remember that Tavinor's reason for thinking that the distinction blurs or fuzzes in the case of videogames is that player actions affect the work world rather than merely the game world. And this is very different from ordinary cases of engagement with representations in which audience actions and responses typically have no direct effect on the work world. (Of course, authors and artists may revise works in light of audience reaction, but this is a different phenomenon.) In virtue of player interaction with the game, then, players 'contribute to the content of the fictional world' in a way that they do not with ordinary representations (Tavinor 2005: 33). So, as Tavinor puts it, 'the game-world effectively *projects* into the work-world because of the fictional interaction' (ibid.).

Which work world does the game world project into? Clearly it is not the work world associated with the game itself. Nothing that players do when playing *Grand Theft Auto III* makes anything fictional in *Grand Theft Auto III* the game. Rather, the relevant work worlds must be the worlds associated with individual playings of the game. And it is true that the player actions make a difference to the work worlds associated with individual playings. But this does not show that game worlds project into work worlds or that the distinction between the two kinds of worlds is fuzzed or blurred. For we can still distinguish the work world associated with a particular playing of the game with the game world associated with it – just as we distinguish the work world associated with a particular production or performance of *Hedda Gabler* from the game worlds associated with audience interaction with that production or performance.

[12] Though clearly not all. 'God games' such as *Populous*, for example, place the player in the role of a supernaturally powerful being who does possess this impressive level of control.

In fact, the analogy between gameplay and artistic performance is instructive.[13] First, individual playings, like performances, are instances of multiples (games in the former case; plays or dances or musical works in the latter case). And these instances are the means by which we typically have access to those multiples. Second, these instances (1) typically share much of the content of the multiples they are made from, and (2) typically exhibit relevant variation in content (i.e., differences between individual performances and individual playings are significant and underwrite evaluations). Third, these instances are produced in both cases by means of intentional actions—by players' playing games in the former case and actors' performing in the latter. Finally the content of both kinds of instance is not determined solely by the pre-existing work but is, instead, partially dependent on the activities of others—the players or performers.

We are not arguing here that gameplay is a kind of performance, although we believe there are important similarities. Tavinor (2009: 58) highlights one, possible, difference; the fact that individual playing of games (unlike individual performances) are not aesthetically evaluable.[14] We argue elsewhere (Meskin and Robson 2010: 557–559) that this is not the case, but our argument here in no way rests on the claim that playing are performance or even share all (or most of) the key features of performances. What we *do* think is that the comparison is instructive. For the comparison helps us see how player construction of content in an individual playing is consistent with retaining a robust work/game world distinction. For just as the content of a production and performance of *Hedda* is not fixed by Ibsen (i.e., the work worlds associated with the production and performance are partially determined by actors), so too the contents of individual playings (and the work worlds associated with them) are partially determined by players. But this leaves the work/game world distinction untouched. For as in the case of a performance, where the content of the performance work world is exhausted by the content of authorized game worlds, so too the content of the work world associated with an individual playing is exhausted by the content of authorized game worlds associated with it—whether those be player game worlds or spectator game worlds.

## 14.7 Conclusion

Fiction on Kendall Walton's account (i.e., walt-fiction) is an incredibly inclusive category, encompassing not only traditional narratives found in novels and theatre but also things as wide ranging as portraits, patterned wall paper and, of course,

[13] So we disagree with Aaron Smuts who, after mentioning the possibility that videogames might be like performative artworks suggests that 'since philosophical aesthetics has almost ignored the aesthetic experience of artists and the performers of artworks, such a classification would shed little light' (Smuts 2005).

[14] Or at least not evaluable in the same way.

videogames. However, not all fictions (and not all artworks) are created equal. When it comes to paintings and other examples of the creative rather than performing arts, work worlds are usually fully determined by pre-existing works. Put differently, interaction by agents other than the relevant creator(s) rarely (if ever) has a bearing on the work world associated with a painting or sculpture. Videogames, like theatrical works, are different. The work worlds associated with instances of the work are not fully determined by the pre-existing work. That is what makes playings and performances interesting. But this does not entail any sort of blurring of the work world/game world distinction. Videogames differ from other forms of representation in significant and interesting ways, but the alleged blurring or fuzzing of that distinction which Tavinor attributes is not one of them.[15]

## Games

Bioshock. 2007. 2K Games, X-box 360.
Bioshock 2. 2010. 2K Games, X-box 360.
Command and Conquer 3. 2007. EA, PC.
Disgaea 3. 2009. Nippon Ichi, Playstation 3.
Grand Theft Auto III. 2002. Rockstar Games, PC.
Pac-Man. 1980. Namco, arcade.
Populous. 1989. Bullfrog, PC.
Resident Evil: Code Veronica. 2001. Nextech/Flagship, PlayStation 2.
Tetris. 1984. Pajitnov, A. and Gerasimov, V., PC.

## Works Cited

Billington, Michael. 2005. *Hedda Gabler*, Almeida, London. *Guardian*, Thursday 17 November.
Carroll, Noël. 1990. *The philosophy of horror, or paradoxes of the heart*. New York: Routledge.
Currie, Gregory. 1990. *The nature of fiction*. New York: Cambridge University Press.
Davies, Stephen. 2003. Ontology of art. In *The Oxford handbook of aesthetics*, ed. J. Levinson, 155–180. Oxford: Oxford University Press.
Deutsch, Harry. 2000. Making up stories. In *Empty names, fiction, and the puzzles of non-existence*, ed. A. Everett and T. Hofweber. Stanford: CSLI Press.
Friend, Stacie. 2008. Imagining fact and fiction. In *New waves in aesthetics*, ed. K. Stock and K. Thomson-Jones, 150–169. Basingstoke: Palgrave-McMillan.
Friend, Stacie. 2010. Fiction, non-fiction, both and neither. Paper presented at Eighteenth eidos workshop, Fiction and Imagination, 28–30 April, at the University of Geneva, Geneva.
Lamarque, Peter. 1996. *Fictional points of view*. Ithaca: Cornell University Press.
Lewis, David. 1978. Truth in fiction. *American Philosophical Quarterly* 15: 37–45.

[15] An earlier version of this paper was presented at The Philosophy of Computer Games 2009 Conference in Oslo, Norway. Thanks to the organizers and the audience at that conference for helpful feedback. Thanks also to Stacie Friend, Kathleen Stock and two anonymous referees for comments on an earlier draft.

Meskin, Aaron, and Jon Robson. 2010. Video games and the moving image. *Revue Internationale de Philosophie* 64: 547–564.
Searle, John. 1975. The logical status of fictional discourse. *New Literary History* 6: 319–332.
Smuts, Aaron. 2005. Videogames and the philosophy of art. *American Society of Aesthetics Newsletter* 25(1): 1–3.
Tavinor, Grant. 2005. Videogames and interactive fictions. *Philosophy and Literature* 29: 24–40.
Tavinor, Grant. 2008. Definition of videogames. *Contemporary Aesthetics* 6. Retrieved from http://www.contempaesthetics.org/newvolume/pages/article.php?articleID=492.
Tavinor, Grant. 2009. *The art of videogames*. Oxford: Wiley-Blackwell.
Walton, Kendall. 1990. *Mimesis as make-believe: On the foundations of the representational arts*. Cambridge: Harvard University Press.

# Chapter 15
# In-Game Action

**John Richard Sageng**

## 15.1 Introduction

In describing the happenings of video games we often refer to actions performed within the game environment. Hence we report the apparent actions of the player or his avatar using descriptions as "walking", "shooting", "breaking", "climbing" and the like. While we have no choice but to use these terms when we identify what the player does, it seems clear that the player is not actually performing actions of the sort these terms normally refer to.

It is the aim of this paper to propose a view of how these actions should be described in literal terms, and more generally how we should understand the nature of agency within a representational graphical game environment. I will first outline what I take to be the central problem in accounting for in-game actions. I claim that the problem is created by a conflict between the requirements of pictorial representation on the one hand, and the requirements of agency on the other.

I then turn to a discussion of a literal specification of in-game action. I first discuss the prospects of accounting for the players actions in terms of intentions to produce pictorial representations and secondly whether they can be understood as being directed at producing virtual happenings and find that these proposals cannot account for the element of ownership and control that is implied by player involvement.

Finally, I propose a different account of the phenomenon denoted by action reports. I suggest that the ownership required by action assignments overrides the semantic function of depiction and effect a *reference shift* for the terms describing the action from the represented happenings to on-screen spatio-visual happenings. I elaborate in more detail how this view provides literal interpretations of common sorts of in-game action and indicate how this gives a key to how the player's actions should be evaluated.

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## 15.2 Action and Representation

Video games provide graphical environments in which the player apparently can perform actions in the course of gameplay. Typical examples of the environments that constitute the background for this discussion will be the those found in 2d-games like Donkey Kong and Tetris, or 3d-games like Doom, Call of Duty, World of Warcraft as well as online social environments like Second Life.

The question of what is reported in attributions of in-game actions should be of central interest to the understanding of video games for several reasons. A central characteristic of these games is that computing is utilized to create gameplay by depictions of actions. An account what such actions amount to should therefore address a key question about the nature of these games.

Another reason is derived from the need to understand the social interaction that takes place in such games. In MMO's there is social interaction going on that sometimes appear to be treated as seriously by the participants as "real life" happenings. Such cases may include borrowing, stealing, insulting, paying, exploring and so on. Furthermore, people live out portions of their lives acting in such environments, sometimes even performing paid full-time jobs. There is also the phenomenon that in-game currency has gained real-life value (Castronova 2001). Some have also raised the question of whether in-game avatars in such settings have rights (Spence 2006). In order to assess the juridical, ethical or economical evaluations of actions referred to under in-game descriptions we clearly need a precise and non-metaphorical account what is actually reported.

Finally, there is the matter of how the actions performed by the player, or actions performed by other players on him, bears on various cognitive issues concerning the player. As such one may worry about whether in-game violence has a bad influence on the character of the player, and to what extent his emotional responses contain a reference to something "real" going on. Similarly there is issue of whether gaming can be said to provide any sort of real experience and knowledge. Again, these sorts of questions will benefit from knowing what sorts of actions the players actually are performing under these descriptions.

The predicates used the in-game descriptions are correct or incorrect depending on the circumstances inside the game. In order to account for this correctness, one must have an account of what is happening, and one finds that common parlance as well as theoretical treatments offers different descriptions of the mode of being of what is happening. For people who are not players themselves it is commonly assumed that the happenings are fictional or imagined. For those who spend time playing such games it is, however, very natural and common to alter the conception of the reality status of what the descriptions apply to in interactive settings. The term "virtual" has very wide currency, and to mention one example, game researcher Espen Arseth has argued that there must be an ontological difference between a fictional door and one that can be interacted with inside a game, and proposes a separate category of simulations to account for this difference (Aarseth 2005). Games theorist Jesper Juul calls the happenings

"half-real" since he takes them have an intermediary role between being real and fictional. Computer games, he claims, are "*real* in that they consist of real rules with which the player interact" but not real in that they depend on the player "imagining a fictional world" (Juul 2005: 1). Finally, the economist Castronova, in the context of economic transactions proposes that such games are "synthetic" worlds as opposed to mere fictions (Castronova 2005).

A common theme seems to be that there is an ontological *inflation* going on once the element of action is introduced. Why is this so? A key to the understanding of such reports may be that the ontological status of the happenings reported in fact stand in a reciprocal relationship with desiderata that make them qualify as actions. This is suggested by the observation that the presence of player action has direct consequences for ontological intuitions people have toward the happenings. By themselves, as a sequence of animated pictures on the computer screen, they are taken to depict happenings that the viewer does not regard as real. However, once the player is performing actions with these depictions, something fairly dramatic occurs with the intuitive conception of their reality status since it no longer seems right to call the reported "runnings", "shootings", "breakings" and the like as *non-existent* happening. Clearly *something* is done by the player besides merely clicking the controls, yet it isn't clear what it is.

From the perspective of the reciprocal relationship between action and depiction, the problem with accounting for the reality status of game happenings is probably easy explain. Taken by themselves, as a sequence of animation, the representations created by the game stand for states of affairs that do not exist.[1] Yet, when the player causes changes to the representations, we are bound to inferences that link the attitudes of the player to the represented object. Thus, if a person runs, opens, breaks or shoots, he or his avatar apparently can be receive blame, praise or be subject to other assessments of what he did under descriptions that apply to the in-game environment.

Following this line of thought, it is possible to pinpoint the source both of the ontological inflation as well as the remaining ontological hesitancy by focusing on the element of causation implicit in action descriptions. It is perhaps a part of our concept of action that an action can be identified by the kind of changes the individual brings about in the environment. Hence if we take an in-game action report such as "Paul opened a door in EverQuest" and stick to the appearance it has of stating something Paul did under that description, the following inference follows:

(I) Paul opened a door in EverQuest
(II) Paul caused something to happen to the door
(III) The door does not exist
(IV) Paul caused something to happen to something that does not exist

[1] Representations in games can obviously stand for *objects* that exist, like the cities in flight simulators or the scenarios in games that aims to simulate real happenings, such as simulation of JFK in the game "JFK Reloaded". However, interactivity implies that the depictions almost always will depict possible rather than actual *states of affairs*.

This inference brings forth the difficulty in combining a literal action report with the implicit ontological assumption that is present in non-interactional setting for the depicted objects and events, and it also sets up the task for an account that aims to provide literal interpretations of what such action reports are about. An account should be able to specify (I) in a way such as to reject the inference, and (II) should be accounted for, whether it is in terms of a confirmation or a denial that there is a causal interaction going on.

There are perhaps two especially natural ways of analyzing this relationship. The first is to accommodate the apparent causal role of action descriptions in terms of interaction with depictions for the purpose of effecting imaginations. The other option is to pursue the line of thought that such descriptions refer to a special kind of "simulated" or "virtual" objects and happenings. Before I comment on these two options, a few words should be said about the nature of the phenomenon of action as opposed to the phenomenon of representation. It can perhaps be said that representation and action from the start makes for an uneasy marriage. The concepts of interaction and representation pull in opposite directions because the criteria for successful application of these concepts have a different "direction of fit" between mind and world.[2]

The primary role of the pictures on the screen is to relate the contents of the users' minds to the surrounding world. A natural view will have it that the difference between pictorial representations and ordinary signs is found in the way they utilize the natural abilities of an individual to recognize things or shapes in the surroundings. The makers the pictorial representations utilize these abilities to make the interpreter aware of the state of affairs they intend to convey.[3] Representations are involved in procedures of production, cognition and interpretation that are evaluated on the basis of how well they fit the world. Fictional depictions do not actually fit the world, so they make use of this semantically established direction of fit to instill imagination in the same way that the telling of a lie makes use of the normal role of assertion to convey a truth.

Action is also a concept that that relates a subject to the world, but the notion is tied a different set of components involved in the success of an opposite direction of fit. The concept of an action is tied to the role of assigning the proper place of an autonomous subject in the causal order of happenings. Cars stop, bodies move, glass break, but what make some of these happenings actions and others not, is the active participation of a subject in making the world fit with his wants. According to a commonly told story, what makes a happening an action is that it is intentional under some description.[4] The active participation involved in agency can be spelled out in this way: The subject, having certain wants or desires, forms an intention, and

[2] The notion is traditionally attributed to Elisabeth Anscombe (1957).

[3] The view that depiction depend on perceived similarity is obviously contested issue, but most accounts will allow that there is at least something to the idea. The exact nature of the relationship is not important for the argument in this paper. A view on pictorial representation that that makes use of recognitional capacities is found e.g. in Schier (1993).

[4] *Locus classicus* for this view is Davidson's essay "Agency". Davidson (1980).

through deliberation brings the intended result about by means of movements of his body. Whether or not something deserves to be called an action is tightly tied to the proper execution of the intention, as the subject must have an active and direct role in the way the intention is carried through. The identification of the action subject to what has been called the "accordion effect" (Feinberg 1970: 134), in which the individual is held responsible for the effects of his actions. Hence, many action descriptions will be descriptions of the kind of changes that the individual causes by his basic actions.

Bearing in mind these differences between the requirements imposed by the concept of action and the requirements imposed by pictorial representation, we can now turn to some attempts to spell out the exact nature of the in-game action reports.

## 15.3 In-Game Action Reports

The locutions that are used to report in-game action in statements such as "Paul stole a sword" or "Lara shot a bear" have the following general form:

(1) S performed an F'ing

Here "S" denotes the subject, and "F'ing" the kind of action that is performed, such as running, shooting, stealing and the like. What we are looking for are the literal and non-metaphorical specifications of the phenomenon that these locutions report in the context of game play.

While the focus will be on the specification of the F'ing in such reports, a few words must be said about the subject place in these locutions, as videogames present a somewhat messy situation in that regard.

One aspect of such reports is the implied position of the subject in relation to the game environment. In videogames the apparent F'ing either takes place from the subject position of an in-game avatar, such as Lara Croft in Tombraider, or from the in-game position of a first-person view, as in Doom or Half-Life. Games like Tetris or Pong possibly constitute a third case. In these games one merely sees in-game effects of the player's actions on the screen, without the implication that the subject is positioned in-game.

Another aspect of such reports is the frequent projection of a fictional character into the subject place. Many video games present a fictional story and setting and the player is supposed to play the role of some character like Lara Croft, Sherlock Holmes or Gordon Freeman. When asked "Who performed the F'ing?" there will sometimes be occasions in which it is appropriate to refer to the fictional character, and sometimes to the player himself. This ambivalence especially applies to actions performed by an avatar viewed from a third-person perspective. When the action is performed from a first-person perspective it will usually be the player who takes the subject place, even when he plays a fictional character. In the Tetris/Pong case it will always be the player himself who takes the subject place.

Finally, a factor relevant to the subject place will be the interactive context of the game play. Video games often make use of both interactive and non-interactive settings. Borrowing terms from games scholar James Newman[5] we can say that the player is either "On-Line" or "Off-Line" during game play. The player often directly controls how the reported in-game actions come about, such as when he is fighting, investigating, turning blocks, or communicating with other players. These are the situations he in which he is "On-Line". However, most games also present situations where the player is "Off-Line", or where one apparently can report various sorts of in-game action not under the player's direct control. It may be that his character is doing things during a cut-scene, or that what the player does is part of an in-game scripted sequence. For example, in the first Half-Life game there is an accident that causes a rift into an alien dimension. The accident is partly player initiated, and partly scripted, since the accident is a part of the game's narrative and not actually under the player's control. There are also the occasions when an avatar performs certain automated actions like reloading a gun or making exclamations pertinent to the setting.

The focus of this discussion will be the cases where a player P appears to occupy the subject place of the central locution, as expressed by

(2) P performed an F'ing

This excludes the cases where subject position reported by (1) naturally is assigned a fictional character in cut-scenes or to non-playing characters, and also to some cases with scripted sequences. In these cases the subject place clearly seems to be occupied by a fictional character. Only real people are capable of forming intentions, so these cannot be candidates for real in-game action. The cases central to this discussion are those where the player is On-Line and apparently *performs* the in-game action rather than being a passive but correlated cause, as in cut-scenes and scripted sequences. To ensure that we get the right cases for (2) we can add as a constraint that the specification of the F'ing should involve an account of how the player is *carrying through* an intention to perform the reported F'ing when he is clicking the controls or tapping the keyboard.

Let us first consider a simple version of what many no doubt will take to be a very natural proposal about the in-game actions. Since we all know that the happenings in the game are not real, the natural idea is that the player with his actions intend to prompt imaginations of the depicted actions with his actual actions with his controls. We get in other words the following version of (2)

(2a) P by clicking the controls carries through an intention to produce a representation of an F'ing.

According to this proposal the kind of action performed by the player is directed at producing representations of F'ings rather than F'ings themselves, which is a view that may be plausible to someone who regards video games as more elaborate

[5] See Newman (2002).

versions of traditional non-interactive pictorial media. This kind of action is certainly performed, for example, when a person turns on a television set to catch a particular show. Perhaps video games rely on the same kind of action, just more of the same. The differences outlined in the previous section between non-interactive depiction and interactive depiction can be taken to trace back to fact that these depictions simply are much more *dynamic* than traditional animated depiction.

One immediate implication of this account is that no action is actually performed by the player as described in in-game terms. When the player performs his actions by the help of an avatar, for example, neither the depicted in-game character nor the happenings it is involved in will typically exist. This means that the action reported by (2) also cannot exist. The paradoxical conclusion in the causality inference outlined in the last section is in other words resisted by denying premise (I).

One problem with this view is that it may be at odds with the intuitions many people will bring to the table of games as scenes for real action. As mentioned earlier people appear to conceive of themselves as "doing" things like borrowing, stealing, killing, opening and so on in cooperation with other players inside the gaming environment. A person who is shooting another player in a deathmatch conceives of himself as actually succeeding in doing something inside the in-game environment, rather than merely imagining it to be the case. The existence of such phenomena as real ownership or stealing in multiplayer games is hard to make sense of if the actions merely are imagined. This is anecdotally illustrated by the story of a player in the Chinese videogame "The Legend of Mir 3", who reported the theft of an in-game sword to the police. His intuitions about the happening were at odds with those of the police, who turned his report turned down, apparently with the justification that the sword didn't "exist" (Slocombe 2005).[6]

A further problem with this view is that it may not give the right interpretation of the causal interaction implied by the action descriptions. If the states of affairs expressed in premise (I) in the causality inference merely is imagined, then so is the causal interaction made explicit in premise (II). A difficulty with this view is that (2a) then implies that the ownership to the F'ing must be imaginary. The action performed by the player commits us to reports of causal relationships between him and the reported happenings in the game, and this apparently gives rise to stronger commitments to ownership than an imagination account allows for.

Compare first the situation of person watching an animated movie on the television set. When watching it the spectator can see a series of events depicted, but the individual does not imagine *himself* to be in character's shoes or floating around seeing things from the perspective of the camera. He is merely using the movie as an aid to imagine that what is depicted is playing out.[7] Even if a special movie was made, supposedly depicting the spectator himself moving about from a

[6] In the case of the Chinese player, "real" money was involved, since the in-game currency had a real conversion rate. However, I believe the attitudes toward an in-game theft as being real theft could be present in the cases where there is no such conversion rate as well.

[7] Gregory Currie in makes this point in Currie (1991).

first-person view, the pictures playing out on the screen would still not really be *his* actions. In executing an action in response to the happenings in the game, however, the individual must exhibit continual and actual responsiveness from the position that forms the basis for his imagining.

There is furthermore a clear difference between avatar action for which this interpretation fits very well, and for those for which it does not. It fits very well, for example, for such phenomena that are outside the individual's control as when he is Off-Line during game play, such as the things "done" during in-game scripted scenes. In such cases it makes good sense to say that they are imaginary actions attributed to an imaginary individual rather than to the player himself. In such cases it will also be entirely natural for the player to say, for example, that "Lara Croft" did it, rather than "I did it". In other cases, however, when the player is On-Line and is affecting changes that are under his control, the player will immediately identify them as his own actual actions. Especially evaluations of in-game action that pertain to movement, such as "swift" and "skilful" or "precise" apply in full force to the players ability to execute his intentions about in-game actions. These are unequivocally attributed to the player himself rather than a fictional character. This may be a clear indication that this account gives the wrong interpretation of premise (II) in the causality argument.

The traditional solution is to regard such objects or happenings as having a special reality status as "virtual" or as "simulated", and that is a solution that apparently does allow the player to perform in-game actions in some sense. According to this view, what is reported in (2) is neither a real nor an imagined F'ing, but a virtual F'ing.

The problem with this proposal is not that that it immediately gives rise to the wrong sort of evaluations of the F'ings, but rather that it is hard to get to have explanatory bite. If we say that the player performed a virtual running, killing, rape and the like, we are left with a corresponding uncertainty with regard to how should evaluate the actions. Is a virtual killing right or wrong? Is a virtual theft permissible or not? It does, of course, not improve the matters to put the "virtual" modifier in front of the evaluations themselves, since we do not know what it means for something to be virtually right, wrong or permissible. Also, if we are inclined to say that a person is skillfully performing an in-game F-ing, is he supposed to be virtually skilful in performing an F'ing, or is he really skilful in performing a virtual F'ing?

One common way of understanding virtuality is as something "having the same effects" as something else. Following Pierces' classical definition, that "A virtual X (where X is a common noun), is something, not an X, that has the same efficiency (virtus) as X" (Baldwin 1902: 792), we get the following account of in-game action:

(2b) P by clicking the controls carries through an intention to reproduce the effects of an F'ing

This explication of the virtuality proposal appears to confirm the suspicion that the notion is of little use in providing a literal account of in-game action. In other contexts, we can give good sense to the notion of "same effect". Thus a glass shard can function as a virtual knife if you can use it cut branches, and a virtual hard disk can be used to store data. In these cases "same effect" literally means the same

effect. In-game shootings however, do not reproduce the same effects as ordinary shootings. While some effects are the same, such as the sounds produced, no actual bullet has been fired or actual person been hurt. What comes to mind as "same effects" must be spelled out in in-game terms, as that an in-game bullet has been fired, and that an in-game person has been hurt. This does not advance the case of providing a literal description of the action, since the problems we have been discussing remain exactly the same for these effects.

The problem with this use of the notion of "virtual" is that one must distinguish between an ontic and legitimate use, where the term simply applies to something that reproduces the effects of what it is virtual replacement for, and an ontological use in which "virtual" is meant to mark a *different kind of existence* for the virtual replacement. If it is the case that the notion is called for simply because we are uncomfortable with calling the players F'ings either "fictional" or "real", then it seems that the term "virtual" really is used to postulate a kind of existence that is meant to accommodate this fact. Sometimes words are used to provide an explanation, and other times they are used to stand in for an explanation. In the latter case we are left with the problem of what the word means, which is not much progress.

These comments about imagination and virtuality are not intended to present definitive criticisms. More elaborate accounts of in-game action based on imagination or virtuality may be able to address the implied reliance on causality and ownership, however this is not the place to explore such discussions. They are meant to serve as a background for a third option that may provide a more direct and perhaps natural explanation of the nature of in-game action.

## 15.4 C-Actions

A central theme in the discussion so far has been the need to negotiate the demands of control and ownership with the ontological status of outcome of the actions. Given that subjective features of the actions performed have consequences for the status of the outcome of the actions, it would be helpful to have a principled account of the relationship between action and its objects.

In the philosophy of mind there is a view called "externalism" that bears on this issue. According to a famous thought experiment put forward by Hilary Putnam[8] we may imagine a planet called Twin Earth that is like Earth in all respects, except that the stuff called "water" consists of XYZ rather than $H_2O$. On this planet it seems to be the case that the individual's word "water" as well as his corresponding mental states will be true about XYZ rather than $H_2O$. Furthermore, if a person were to move from Earth to Twin Earth, his thoughts and words would in the same way change

[8] The classical statement of this position is "The Meaning of 'Meaning'" (Putnam 1975).

contents after he had interacted with the new surroundings for some time. One way of interpreting this thought experiment is that the contents of peoples' words and mental states depend on certain kinds of causal interaction between the individual and the surroundings. This connection between the contents of mental states and their external causes has also been utilized by Putnam in his proposal that if a brain in a vat is induced with artificial sense impressions (a scenario similar to the one depicted in the movie "The Matrix"), the right interpretation of its mental states is that it does not have false beliefs about our world but rather cursivated about the electronic environment that it is interacting with (Putnam 1981).

This line of thought may offer a different way to understand the relationship between action and representation in videogames as well. As we have seen, pictures and actions have a different direction of fit. Representations are required to fit the world, while the accordion effect for identification of actions imply that the criteria of agency are tightly tied to the success the agent has in carrying through his intentions.

Much in the same way that an externalist will have it that an individual's interaction with the surroundings determine the content of his words and mental states depending on whether he is situated on Earth, Twin Earth or in the electronic environment of a "brain in a vat", the semantic consequence of introducing real action with pictorial representations is that the players' intentional object will change from the fictional happenings originally cursivated to the things he now interacts with, which are simply the computer generated spatio-visual *graphical shapes* that he sees before him on the screen. Thus, normally when the player intends to perform a "shooting" or "walking" in the context of gameplay the contents of his mental states have shifted reference to graphical happenings on the screen.

What is taking place with video games is more complicated than the reference-shifting in the familiar externalist scenarios in natural settings. In these scenarios the environment does not already have a semantic role, only the behavior and mental states of an individual themselves do. In a video game, by comparison, the "environment" of the player starts out as a collection of symbols with representational functions.

The consequence of introducing player interaction, according to this line of thought, is that the representational function of the original environment is transformed into real properties of the original representations. Prior to interaction, the term "running" in a description of depiction refers to an ordinary running, but after interaction we have the option to regard the term as directly referring to computer generated shapes on the screen that have spatial similarities with runnings. The graphical shapes are designed to have a specific semantic role that make use of perceived similarities to authorize imaginations or make-believe[9] of what is being represented, but when the accordion effect kicks in, this semantic connection is turned in reverse, and becomes an individuating principle for a new set of graphical actions. The problem with these new actions is that we for the most part only know their identification conditions from their historical connection with their

[9] Locus Classicus for a view of this sort is "Pictures and Make-Believe" by Kendall Walton (1973). He does not think that perceived similarity is a necessary condition for depiction, though.

representational role and for the most part we do not have special words for them. For the purposes of giving a precise specification of F'ings, however, we can simply prefix the terms with C, so that an in-game action like a running can be identified as a c-running.

According to this proposal the actions reported by the central locution are based on the following kind of action:

(2c) P by clicking the controls carries through an intention to produce a C-F'ing

The player is on this account allowed, in the most literal sense, to perform an action with the help of these graphical shapes. The causal implication of premise (II) in the causality inference in Sect. 15.2 is straightforwardly preserved and the conclusion in (IV) is denied.

According to this account, the player is indeed performing very real and identifiable actions in a video-game that are plain to see and identify when he plays a game. There is nothing mysterious about these actions other than the fact that they are made possible by a highly artificial sort of environment whose special purpose is to facilitate gaming acts. These actions are different from those that can be performed with visual depictions, which at the most involve mental actions to imagine or make-believe that something is the case on the basis of features of the representations themselves.

Although this proposal is compatible with the view that the actions in question enter into ontic virtual or simulated features, it is very different from the claim that the game environment is simulated or virtual. The view does not imply that there is a separate ontological category of virtuality, since the graphical actions straightforwardly belong to the ordinary physical world. Furthermore, the nature of these actions is not primarily determined by their strucural similarity to visual or other effects of ordinary objects and events, but rather by a process of individuation based on their non-representational role in gameplay.

## 15.5 C-Actions and Gameplay

With the suggestion provided in (2c) we have a starting point to provide an interpretation of the actions performed inside the game environment. Videogames, in contrast to non-interactive fictions, provide reasons for action for the player. The games provide the player with motivations both related to gameplay and to features of the fictional setting. According to the outlined view, however, the game actions must be seen as having an *optional* representational role, and hence that the player actions are intentionally directed at effecting c-happenings in the graphical environment.

Tetris comes close to be an example where (2c) is a true description of most of the gaming acts without any further modifications. It is possible to refer to the shapes in a way that implies that they are pictorial representations of "blocks" or "fallings", but it is probably not important to the player that he intends to produce

such representations. We would regard a player as playing Tetris if he always played it sideways, and never knew what the right way was. The representational element in Tetris is only ornamental, in the same way that it is insignificant to the actions of a chess player whether he pretends that the knight piece is an actual knight.

Tetris is an exception, however, as games in general depend more heavily on representing fictional events and settings. In these cases the proper interpretation of the intentions of the player can be given along the lines of a pretence account.

(2c′) P by clicking the controls the carries through an intention to produce a C-F'ing he pretends to be an F'ing.

For example a player of Quake may pretend that he actually is fighting the Stroggos, and that he is a space-marine running around in dark corridors. A player probably wouldn't be regarded as playing Space Quest unless he entertains the idea that he is a space cadet doing certain things in an imagined setting.

Finally, it seems clear there are a lot of actions that apparently stay the same across the different environments, since many action descriptions apply irrespective of whether the causal effects of the actions find place in a graphical environment or not. In this case (2c) reduces simply to:

(2c″) P by clicking the controls carries through an intention to perform an F'ing.

Displaying the colour red, moving, intimidating an opponent or showing off your skills, are types of actions that may be performed just as well within the graphical environment as outside it. Furthermore, speech acts remain exactly the same, because they do not care about the nature of the medium that carries their meanings. Hence, the point sometimes made that a lie is still a lie inside a game.[10]

The correct account of the players' actions will depend on the intentions and desires that best rationalize them in each particular case. Both the desire to pretend an F'ing and the desire to perform a C-F'ing can rationalize an action. In some cases it is not unreasonable to claim that (2) is not ambiguous between (2c) and (2c′), but rather carry cursivated interpretations at the same time. If I report to some of Paul's multiplayer friends that "Yesterday, Paul shot everyone in the room with a shotgun" I may both be referring to the fact that he performed an action in which he intended to do a c-shooting with a c-shotgun as well the fact that he performed an action in which he intended to pretend to do a shooting with a shotgun. If I on the other hand imply that he did the shooting skillfully, this assessment will of course only apply to the c-shooting. However, even the fictional pretence can peel entirely off if there is reason to think that it does not matter to the player. This is tellingly shown when the competitive player in Quake strips out the textures in the game in order to see better and play faster.[11] In these cases also, it seems clear that (2c) carries out directly.

[10] See Aarseth (2005: 62) for a reference to the point that you can tell real lies within a graphical environment.

[11] See Retaux and Juliette (2002).

The same drift toward the real c-actions is probably found when serious social interaction is going on serve as the main motivator for the player. This provides a validation of the attitudes the players have of being directed at "real" happenings. Indeed they are: in these cases it may be said that the players are performing straightforward actions situated within a graphical environment.

Some of the time these c-actions will belong to action types that only can be found within the game and other times they will belong to types we also perform outside the game. To mention a few examples, I think "theft" can easily refer to the same phenomenon in both kinds of environments. As implied by (2c′) there may of course be a lot of pretend theft in a game that depicts thieving, but that is no different from what may be the case in an ordinary environment. What is important is that here can be cursivated inside a game, in cases such as when a player is supposed to pay money for an item, but acquire it by deception instead. Along the same lines it is easy to account for the transition from fictional monetary value to a real monetary value, since c-currency can be real objects that gain real value due to their role in social interaction in such games.

On the other hand there will be no such things as running, killing or enslavement in the graphical environment, because these descriptions essentially refer to your non-graphical body. For the same reason it seems to me that a "rape" in the graphical environment is not possible, although a c-rape will be distinct kind of action, certainly worthy of blame. A c-killing is its own type of action as well, which consists in restricting the available actions to another individual, perhaps a bit similar to the action a boss performs when taking a key away from an employee.

## 15.6 Conclusion

To summarize, I have in this paper indicated how we can view the actions performed from within a environment of a video game as real actions performed by the player.

The basis for this account is the thesis that the element of control and ownership in player interaction shifts the intentional object from the pictorially represented to a real graphical environment that the player can causally interact with.

While these graphical environments offer action types that often differ from those available in our ordinary surroundings, the conditions of agency are exactly the same as in any other environment.

## References

Aarseth, Espen. 2005. The perception of doors: Fiction vs simulation in games. In Proceedings of 309 the 6th DAC conference, Copenhagen, December 1st–3rd, 59–62.

Anscombe, G.E.M. 1957. *Intention*. Oxford: Blackwell.

Baldwin, J.M. 1902. *Dictionary of philosophy and psychology*. New York: Macmillan.

Castronova, E. 2001. Virtual worlds: A first-hand account of market and society on the Cyberian frontier. Gruter Institute Working Papers on Law, Economics, and Evolutionary Biology 2-1-1008, Berkeley Electronic Press.
Castronova, E. 2005. *Synthetic worlds: The business and culture of online games*. Chicago: University of Chicago Press.
Currie, G. 1991. Visual fictions. *The Philosophical Quarterly* 41(163): 129–143.
Davidson, D. 1980. *Agency. Essays on actions and events*. New York: Oxford University Press.
Feinberg, Joel. 1970. *Doing and deserving*. Princeton: Princeton University Press.
Juul, J. 2005. *Half real: Videogames between real rules and fictional worlds*. Cambridge, MA: MIT Press.
Newman, James. 2002 The myth of the ergodic videogame. *Game Studies* 2(1) http://www.gamestudies.org/0102/newman/.
Putnam, H. 1975. *The meaning of 'meaning'. Philosophical papers: Mind, language and reality*, vol. 2, 215–271. Cambridge: Cambridge University Press.
Putnam, H. 1981. *Reason, truth, and history*. Cambridge: Cambridge University Press.
Retaux, Xavier and Rouchier, Juliette. 2002. Realism vs. surprise and coherence: Different aspect of playability in computer games. Paper presented at the Playing with the future, 5th–7th April. Manchester, UK http://ideas.repec.org/e/pro177.htm.
Schier, F. 1993. Van Gogh's Boots: The claims of representation. In *Virtue and taste*, ed. D. Knowles and J. Skorupski. Oxford: Blackwell.
Slocombe, Mike. 2005. Legend of Mir 3 gamer killed after selling virtual sword, digital-lifestyles.info 31 Mar 2005 http://digitallifestyles.info/display_page.asp?section=business&id=2061.
Spence, E. 2006. *Ethics within reason: A neo-Gewirthian approach*. New York: New York University Press.
Walton, Kendall. 1973. Pictures and make-believe. *Philosophical Review* 82(3): 283–319.

# Chapter 16
# Reality, Pretense, and the Ludic Parenthesis

**Olav Asheim**

## 16.1 Purely Intentional Objects

This paper is concerned with the ontological problem of what is real in a computer game. The problem is closely related to certain other questions of reality. What is real in a work of fiction; in a novel, say, or in a drama on stage? What is real in a game of the old-fashioned kind where play is not mediated by computers? And even: what is real in a dream?[1] To help clarify these questions, I will introduce tools first developed for the study of modal logic, and make a modest attempt to apply them to a few examples in the emergent interdisciplinary field of philosophical game research. I will compare the merits of my modal-logical approach to a contextualist alternative.

There are some additional questions about reality that will also concern us. What is the ontological status of computer games as such, and what is the ontological status of artefacts in general? The phenomenologist Roman Ingarden is best known for his studies in aesthetics. However, what motivated his study of different forms of art and of cultural objects generally, was an interest in ontology.[2] In *The controversy over the existence of the world* (*Der Streit um die Existenz der Welt* – 1964, 1965a, b, 1974) he examines in detail what he calls different "ways of being" {Seinsweisen} and "existential moments" {existentiale Momente}[3] (Ingarden 1964, pp. 69–129). Of primary interest to him in his study of *The literary work of art* (Ingarden 1960) are the question what it means for a literary fiction to exist and the question what it means for a character in a literary fiction to exist.

My interest in computer games is similarly motivated. Like Ingarden I am primarily interested in ontology. I am interested in ontological similarities and

[1] Cf. Kendall Walton's discussion of dreams and daydreams (Walton 1990, pp. 43–51).

[2] For a brief, good quality introduction to Ingarden's philosophy see Thomasson (2008).

[3] Like autonomy and heteronomy, to be discussed later.

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differences between computer games, traditional games, fantasy activities of all kinds including dreams, and the subjects Ingarden studied: literature, theater, film, music, visual art, and architecture.[4] My focus here is on the ontological status of objects in videogames.[5] I want to compare their reality status to the reality status of what we could call "make-believe objects" as we find them in fiction as well as in traditional game-play. Are the inhabitants of videogames ontologically different from make-believe objects? Do they have a stronger claim to reality than fictional entities have? There is some evidence that they do: for example the currency in Norrath, the virtual world of *EverQuest*, has long ago become real money in having acquired a real exchange rate relative to extraludic currencies like the Dollar (Castronova 2001), and a piece of visual art on exposition in a virtual gallery in *Second Life* is a piece of visual art. Besides there is the interactivity of videogames: The player apparently interacts with objects in the game, and this can maybe be used as an argument for the view that such objects are real in a way fictional objects are not.[6,7]

In Ingarden's ontology there is a place for what he calls *purely intentional objects* {rein intentionale Gegenstände} in addition to real objects like stones, ideal objects like numbers, and absolute objects like God. In *The controversy over the existence of the world* he does not start with the assumption that objects that are not purely intentional exist[8]; he limits himself to describe what it means for

[4] For an exposition and discussion of his view see Thomasson (2005).

[5] In particular I am interested in objects in videogames that are representational in a way for instance *Tetris* is not, so that a pattern of light on the screen is meant to represent something essentially different from the visual patch it is, say a young wolf or a dragon in *World of Warcraft*. Can the dragon even so be identical to the bit pattern? Or is it perhaps to be identified with part of the data structure or the program code that creates this bit pattern?

[6] Cf. (Aarseth 2005). Aarseth distinguishes between simulated or virtual objects, real objects, and fictional objects. Objects of all three kinds can be present in a computer game at the same time.

[7] Compare this to the importance of causation in the metaphysics of mind. In the ever ongoing debate about the reality of consciousness as separate from the reality it is consciousness about, mental causation and psychophysical interaction are key concepts. In this connection we should not ignore the puzzling fact that fictional objects and events often have a strong emotional effect on us, maybe stronger than the emotional effects computer-based ludic objects have. Walton's attempt to explain the reader's (or player's) emotional responses as indulgence in make-believe emotion (Walton 1990, pp. 241–255) is not satisfactory as I see it, but I have no better solution to the problem myself. It is also of some interest that the third and last volume of Ingarden's *The controversy over the existence of the world* is *On the causal structure of the real world* (Ingarden 1974). Ingarden holds, first, that the causal relation must be a relation between events in one and the same world, second, that it is a relation that can only hold between real beings {reale Gegenständlichkeiten}, and, third, that it is different for instance from the relation between an author of fiction and the purely intentional objects in his fictional work—in general the relation between creator and creature is not a causal relation according to him (Ingarden 1974, p. 1n).

[8] That would be to assume a realist solution to the problem of the existence of the world from the outset. "[I]t is still not ruled out that the real world, whose existence is what the controversy is about, at the end of the day turns out to be purely intentional after all {doch letzten Endes bloß rein intentional ist}" (Ingarden 1965b, p. 199).

an object to be a real, an ideal, or an absolute being. As to purely intentional objects he first lays down that they belong to the more fundamental category of existentially heteronomous objects {seinsheteronome Gegenstände},[9] whereas real objects are existentially autonomous {seinsautonom}, which is an important difference.[10] According to Ingarden, a purely intentional object is a mind-dependent object, but it is not a mental object, it transcends the intentional act it originates in.[11] He also makes a distinction between purely intentional objects and objects which are only accidentally intentional: real objects that happen to be the focus of an intentional act.[12] Among purely intentional objects he distinguishes between those that are the objects of simple intentional acts, like for instance the ship we pretend to see in the sky when we look at the clouds (Ingarden 1965a, p. 201), and derived purely intentional objects. He argues that fictional objects in a work of literature are derived purely intentional objects having their immediate fundament of being not in the creative imagination of the author, but in the meaning of the sentences that keep the literary fiction alive.[13]

The concept of a purely intentional object is central to his argument against Husserl's transcendental idealism. In *The controversy over the existence of the world* he argues that what we tend to see as real objects have a different way of being from that of objects that are purely intentional, and hence dependent on an act of consciousness (directly or in a derived way). However, in defending a realist position against Husserlian transcendental idealism, he apparently makes some

[9] Purely intentional objects make up the only subcategory of the category of existentially heteronomous objects discussed by Ingarden, but it is interesting that he mentions merely possible objects as a possible additional subcategory (Ingarden 1964, p. 87).

[10] "A being {eine Gegenständlichkeit} (in the sense of anything whatsoever) exists autonomously (is existentially autonomous) when it has its fundament of being in itself. And it has it in itself when it itself is an immanently definite something {etwas immanent Bestimmtes}. A being {eine Gegenständlichkeit} is existentially heteronoumous (exists heteronomously), on the other hand, when it has its fundament of being outside of itself" (Ingarden 1964, p. 79—my translation).

[11] "The purely intentional beings {die rein intentionalen Gegenständlichkeiten} are 'transcendent' relative to the corresponding acts of consciousness and generally to all acts of consciousness {den entsprechenden und überhaupt allen Bewußtseinsakten gegenüber} in the sense that no real {reelles} element (or moment) of the act is an element of the purely intentional being {der rein intentionalen Gegenständlichkeit} and conversely" (Ingarden 1960, p. 123—my translation).

[12] "One should distinguish [being a purely intentional object] from those other ways of being an object that are also often called 'intentional' {von denjenigen, oft ebenfalls 'intentional' genannten Gegenständlichkeiten}, which are indeed concerned {betroffen} by the intention of an act of consciousness, but for which this concern {dieses Betroffensein} is completely accidental, since they—in the case that they exist at all—exist in themselves without this concern, and are what they are" (Ingarden 1964, pp. 82–83—my translation). He attributes the distinction between purely intentional objects {rein intentionale Gegenstände} and objects that are also intentional {auch intentionale Gegenstände} to Max Scheler (Ingarden 1960, p. 123n).

[13] "Not every purely intentional object has its immediate fundament of being in an act of consciousness. . . . [The meaning of a sentence that belongs to a literary work of fiction] defines {bestimmt} of itself {von sich aus} the objects depicted by it (people, things, animals, events etc.) which are also purely intentional" (Ingarden 1964, p. 86—my translation).

concessions to idealism, or to what could today perhaps better be called social constructivism. Roman Ingarden makes the controversial claim that cultural objects like works of art are purely intentional objects. Indeed, he seems to think that all artefacts are.

I shall define a purely intentional object[14] as an object that cannot be given an identifying description that does not contain an intentional predicate. By an intentional predicate I shall mean a predicative phrase that explicitly or implicitly contains a reference to consciousness as a constitutive part of the property the predicate is an expression of. An example of an explicitly intentional property expression is "is imagined by NN to be a magic sword". It contains an ineliminable reference to NN as the conscious subject of an intentional act that builds a property that is radically different from the property of being a magic sword it is based on. If Ingarden is right about artefacts, being a computer game is one example of a property which implicitly refers to consciousness. Another example is the property of being a magic sword: it depends on consciousness as well. If magic swords exist, they will be purely intentional objects in virtue of being swords.

I am not at all sure that my definition of a purely intentional object fits Ingarden's concept of a purely intentional object, but I think my concept comes close enough to his to be useful when probing into the nature of artefacts. As I said, Ingarden seems to think that artefacts of all kinds, including, of course, works of art of greater or lesser value, are purely intentional objects. Remove consciousness from the world, and there will be no cultural or social objects, institutions, and events in it any more, no artefacts whatsoever.[15] There will be no money, there will be no flags, no churches, no buildings at all, no symphonies, and no pictures, to mention a few. But there will still be pieces of cloth, heaps of stones, soundwaves, and surfaces that reflect light.

This view is a challenge to physicalism. Ingarden argues that a church is a different object from the building as such, that would remain the same if it were transformed into something else, say a museum, and the church thereby ceased to exist. If the building is demolished, the church can be rebuilt, so a church can also survive the original building. And the building as an artefact is again a different object from the "heap of stones" as a real object {realer Gegenstand} (Ingarden 1962, pp. 257–268). In a work of architecture—as well as in a work of literary art (Ingarden 1960, passim)—there are different strata. The church is a purely intentional object with a real object as its substratum, but, according to Ingarden, it is not reducible to this substratum. Accepting Ingarden's point that a church is a different

[14] I first made use of this concept in my (1992) where I argue that beliefs about objects that apparently don't exist, like the belief of a young child that Santa Claus will bring her gifts on Christmas Eve (example here borrowed from John Perry (2001, pp. 153–156) who doesn't share my view), are beliefs about purely intentional objects, and also that a directly referring term that apparently fails to refer, like the name "Santa Claus", may actually refer to a purely intentional object. I am not at all sure that Ingarden would agree.

[15] It is interesting to compare this to John Searle's view (Searle 1995).

object from the "heap of stones" it consists of, it can perhaps still be argued that purely intentional objects supervene on real objects in the sense of global supervenience.[16] At least it can be argued that purely intentional objects supervene on real objects in the sense semantics supervenes on syntax or evaluative properties supervene on descriptive properties, that is in a way that seems to preclude reduction—Davidson's sense of supervenience (Davidson 1970, 1993).

The ontological status of artefacts in general is not an issue to be decided here. I will limit myself to discuss the ontological status of Lara Croft, Sherlock Holmes, and a few other ludic and fictional beings. I shall argue that they are purely intentional objects that exist in the sense that they are referred to and quantified over even though they are not "real".[17] That means that they meet Quine's existence requirement.[18]

## 16.2 The N-operator

I will now introduce a generic indexed sentence operator, "$N_I$",[19] to stand for a familiy of operators in several related fields—of special interest to us are the field or fields of computer games, the fields of traditional games of all kinds, and the field of literary fiction; also the fields of theater and of fiction film. In addition there is the field of fantasies and daydreams, and "$N_I$" could even be interpreted as a dream operator. In that case "N" could be given the reading "somnially", and the index, the subscript "I", would be a reference to a dream episode, defined by a dreamer and a time. Example: "Somnially, in the dream Alice Williams had in the early morning of December 9, 2009, she could fly." If, more interestingly, we interpret "N" as a literary fiction operator, then the index will refer to a particular literary fiction, say Kurt Vonnegut's *Mother Night*; or if we interpret "N" as an operator on sentences apparently describing events in a game as if they were real, the "N" could be given the reading "ludically", and the index will refer to a particular episode of game-play, computerized or not. In this way what is asserted by the original sentence is bracketed as it were, suspended and replaced by a meta-assertion.[20] An example from the field of online videogames is: "Ludically, playing *World of Warcraft* today, my brother and I killed a dragon". In the field of theater and fictional drama there is an important difference between letting the index refer to a drama

[16] See Priest (2008) on fictional objects as supervening on the activities of cognitive agents.

[17] This is so because Croft and Holmes are individuated as purely intentional objects. Many fictional objects are not individuated at all. See my (1996).

[18] See Quine (1961a). They meet his requirement in so far as apparent reference to them and quantification over them cannot be eliminated from a theory, to put it roughly.

[19] "N" for "noetic", "neutral", and "neutralizing".

[20] This is not so different from the view held by pretense theorists like Kendall Walton (1990) and Anthony Everett (2005).

as such, say Shakespeare's *Hamlet*, or to a particular performance of the drama; this will actually give us two different drama operators. In connection with a novel, for instance, there is a similar difference between the universe of the literary fiction as such and what takes place in the individual reader's imagination in her encounter with the work.[21]

The reason I start by introducing a generic operator instead of the different operators themselves is that there are interesting similarities between them that I want to exploit. One might wonder if these fields and the corresponding operators on sentences apparently describing what goes on in them have so much in common that there actually is a common denominator, a basic operator, say of pretense, or perhaps of imagination, underlying each and all of the specialized operators of fiction, game-play, fantasy, and so on. Actually, I think that pretense is in some respects a key concept in connection with games, fiction, and fantasy, but I am not sure that pretense is the key to everything in these fields. What is pretended in a game of chess, for instance, and what is pretended in a dream, to take a very different example? To the objection that there is normally no pretense in a dream one could respond simply by excluding dreams from the realm of phenomena under study, just as it is only natural to exclude belief from this realm even though the behavior of a belief operator has also much in common with the behavior of the operators we are interested in here. But it is more complicated than that. First, there is the phenomenon of lucid dreams, in which the dreamer is aware of being dreaming. This is closely related to fantasy, but it isn't clear that this dream awareness is a kind of pretense. Second, there is the problem of immersion or absorption: if you immerse yourself completely in a fiction or a game, you start to forget that it isn't real, and it is as if you are entering a dream. The pretense seems to evaporate. Maybe both of these worries can be set aside easily—we could go for imagination as the key concept instead of pretense. But then there is the problem of objects and events in videogames which actually seem to be real objects and events even though they originate in the game and are not imported from external reality to it—this is the problem we will try to find the solution to. To assume from the outset that what is ludic can be reduced to pretense or imagination would be question-begging.

It is true that intentionality is a characteristic that is common to the fields I have mentioned above. But intentionality is not an exclusive characteristic of these fields. Belief and other propositional attitudes as well as knowledge and all forms of experience are also characterized by intentionality, but we clearly don't want to include these phenomena in the realm of fields we are interested in here. So I will be content with thinking that there is a family resemblance between fiction, games, fantasy and so on, and no more than that.

To make things a little more intuitible, let us now for a while presuppose the interpretation "fictionally" for the N-operator, letting the index refer to a particular

[21] Cf. Walton's distinction between work worlds and game worlds (Walton 1990, pp. 58–63).

literary fiction, say once more to Vonnegut's *Mother Night*.[22] A thing one could say to describe a fictional fact in this story is: (α) "Campell is the author of *The diary of a monogamous Casanova*." This is not literally true; even so there is some truth in it. To bring this truth out we will bring in a fiction operator. For (α) we substitute: (β) "$N_I$(Campell is the author of *The diary of a monogamous Casanova*)", to be read "Fictionally, in Vonnegut's *Mother Night*, Campell is the author of *The diary of a monogamous Casanova*." This is a truth as I see it. The original, literally false or maybe meaningless,[23] just pretended assertion (α) is closed up in a parenthesis, and a new meaningful assertion (β) is built from it to replace it.[24]

Now forget the interpretation of the N-operator as "fictionally". It is once more a generic operator, and we want to study its behavior in the general case. In the syntax of my notation there is the rule that the N-operator is to be followed immediately by a left parenthesis, and a right parenthesis is to end the scope of the operator and finish the construction. The bracketed sentence is the sentence operated on.

At this point an important question is awaiting us. Is a sentence construction of this type meaningful and permissible? Opinions will differ on this, as they will also differ on the issue whether my N-operator is a pretense operator. Some will see a sentence operator of this type as permissible while others will not, and some but not all will see it as a pretense operator.

In order to continue, I have to presuppose that my sentence operator performs a meaningful operation that results in meaningful sentence constructions. By making this assumption I take what may be seen as the first small step in a direction that will eventually lead me to full N-realism.

There are those who will oppose the introduction of my N-operator, and for several reasons. Kendall Walton (1990) is probably one of them, and Peter Ludlow (2006) is certainly another. Walton comes close to accepting an operator of pretense, but his operator seems to be different from my N-operator. He talks of fictionality "as a property of propositions, as analogous to being believed or desired or hoped for or denied" (Walton 1990, p. 205), but then he goes on to emphasize the difference between fictionality and fictional operators on the one hand, and other operators and other intentional properties on the other (Walton 1990, pp. 204–208). Ludlow argues against pretense theories in general and against the introduction of a pretense operator in particular. He sees this as the wrong approach to videogames, and goes for a contextualist approach instead. His arguments are arguments not only against a pretense operator as such, but really against any similar operator, and hence against my generic operator. I will discuss these arguments later. Before I do

[22] A fiction operator of a similar type was first introduced (as far as I know) by John Woods (1974). However, Woods emphasizes that his fiction operator does not reduce to the adverb "fictionally". The question of quantification into fiction contexts, which is of central interest to me, is not raised in his book.

[23] Walton sees it as literally meaningless, I see it as literally false.

[24] Anthony Everett holds a similar view. He sees the assertion (β) as implied in a way by pretending to assert (α) (Everett 2005, pp. 638–643).

I shall have more to say about the N-operator, and especially about the semantics intended for it.

We should first note the similarity in syntactic and semantic behavior between the generic N-operator and an operator of belief, "B".[25] If the N-operator is admitted, the similarity between the two operators turns out to be so strong that the field of belief could without difficulties have been included in the realm of fields the generic operator is to cover, so that "B" would be a permissible interpretation of the N-operator—belief is excluded because it is reality-oriented and as such radically different from make-believe, fantasy, and play—it is excluded for material, not for formal reasons. In the way "N" is an indexed operator, "B" is also indexed. Interpreting "N" as an operator of daydreaming, the subscript "I" will refer to the subject having the daydream. "B" needs a similar subscript referring to the subject holding a belief—I shall use the letter "S", writing "$B_S$". Once again I will use parentheses to delimit the scope of the operator. The B-operator is subject to the same syntactical rules as the N-operator, and, as we shall see, the semantics of N-constructions is as similar to the semantics of B-constructions as these constructions are to each other.

Take as an example the construction "$B_{Ann}$(Putin is still president of Russia)". It is paralleled by "$N_{Ann}$(Putin is still president of Russia)", where "$N_{Ann}$" can be interpreted as "Ann imagines that".

A logic of belief is a modal-type logic, closely related to the logic of knowledge, which is a genuine modal logic,[26] and there is a possible worlds semantics for it. The similarity between the B-operator and the N-operator is an indication that a possible worlds semantics can be adequate for N-type operators as well, hence also for a ludic operator dedicated to videogames.

Possible worlds semantics of the Kripke type[27] (Kripke 1963) was developed for clarification of the modal concepts possibility and necessity. What is possibly true is true at at least one possible world; what is necessarily true is true at all possible worlds. When I talk about "possible worlds" I mean "worlds" that are possible in some sense relative to the actual world. A world in this kind of model-theoretic semantics is just a scenario, a way the world is or could have been, and there is no commitment to realism in it.[28] Usually a possible world is conceived of as a maximal actual or counterfactual state of affairs, but for some purposes it is better to operate with scenarios of different sizes, big and small worlds.[29] A small world will be incomplete and extendible. What makes a world possible relative to the actual world depends on which modal concepts we want to analyze; there are for

[25] See my (1996).

[26] See Hintikka (1962, 1969).

[27] This type of model-theoretic semantics is commonly associated with Kripke. However, it was first developed by Stig Kanger (1957).

[28] David Lewis's modal realism (Lewis 1968) is in several respect different from the treatment of modality in standard Kripke type semantics.

[29] Situation semantics is a small worlds semantics.

instance more logically possible worlds than there are physically possible worlds. Especially in connecton with fiction, worlds or scenarios need not be possible in any sense: that is, we may allow for impossible states of affairs, like a person being fat and not fat at the same time.[30]

Among the different concepts of necessity there are, in addition to the concepts of logical and physical necessity already mentioned, concepts of natural and metaphysical necessity, and Aristotle's concept of necessity as that which is always the case—the latter concept makes for a temporal logic, as developed by A. N. Prior (1957). There is also a concept of epistemic necessity, expressible as "it is known that",[31] explored by Hintikka (1962) in connection with belief. The step from "it is known that" to "it is believed that"[32] is apparently not so big, but we have to give up one axiom of modal logic on our way, the axiom parallel to the axiom that what is necessary is also the case. It is true that what is known must also be the case, but it is not true that what is believed must be the case.[33] This is an important difference, but possible world semantics still works for belief. We can now talk about a world $w_1$ as being compatible or incompatible with what is believed by a subject *s* in the world $w_0$—ultimately in the actual world, but a nesting of belief operators is allowed—and the world $w_0$ need not be compatible with what *s* believes in $w_0$.

This brings us finally to the semantics of the N-operator. We will let "S" (for "story") represent the fiction, daydream or episode of playing a game in question. Since "$N_I$" is a generic operator, we have to distinguish between different interpretations of "S". If we interpret "$N_I$" as "Fictionally, in the Sherlock Holmes stories by Arthur Conan Doyle," for example, then "S" is to stand for the complete text of these stories.[34] If we interpret "$N_I$" as "Fictionally, in Richard Roe's daydream," say, then "S" is to stand for a complete description of what takes place in this daydream, and similarly, if we interpret "$N_I$" as "Ludically, in the episode of playing *World of Warcraft* John Doe took part in on the afternoon of July 3rd 2010," then "S" is to stand for a complete description of what took place in

[30] This is tolerated in the situation semantics developed by Barwise and Perry (1983, p. 96). Impossible worlds, also called "non-normal", are often made use of in modal logic, notably in connection with knowledge and belief. See Berto (2009). See also Hintikka (1975), Rantala (1982).

[31] Also "*s* knows that".

[32] Alternatively: the step from "*s* knows that" to "*s* believes that".

[33] Similarly, as we all know, it is not true that what ought to be is actually the case. This means that doxastic logic and deontic logic are both paramodal logics.

[34] This text as a whole is incoherent. "Conan Doyle's *The Sign of the Four* describes Watson as limping because of a war wound in his leg. In *A Study in Scarlet*, however, Watson has no wound at his leg (for it is located in his shoulder), and he doesn't limp." (Berto 2009, p. 18.) In a case like this we can limit S to a coherent part of the whole text, say to one of the two books if they are separately coherent. In this case the inconsistency seems to be unintended; it is not part of the Sherlock Holmes fiction that the laws of logic are suspended in it. Essentially incoherent fiction will be discussed later.

this episode of playing the game. Now let "p" be some declarative sentence of lesser or greater logical complexity. Then (ignoring context for simplicity's sake, and taking "p" to express a definite proposition straight away) "$N_I(p)$" is true in $w_0$ if and only if "p" is true at every world $w_n$ that is compatible with what is expressed by "S" in $w_0$. For example, the statement "Fictionally, in the stories by Arthur Conan Doyle, Sherlock Holmes takes cocaine" is true if and only if "Sherlock Holmes takes cocaine" is true at every world that is compatible with what is expressed by Doyle's text.[35] This text does not in itself describe a complete world, many things are left open. Walton talks about fictional worlds as indeterminate or incomplete. Now we can replace incomplete fictional worlds with worlds as complete as we want them that are compatible with the fiction. We can explain what it means for a reader to fill in details in the story, and we can decide which details it is legitimate to fill in. We also have at our disposal a semantical method for determining which fictional truths imply which others.[36]

Finally, we can now do away with unwanted fictional entities by closing them up in a parenthesis to the effect that we avoid any ontic commitment to them when we apparently talk about them. To a fictional antirealist all fictional entities are unwanted, but some fictional entities, for instance entities that are in lack of a clear identity, are seen as undesirable, or at least as problematic, also by the fictional realist. Say that we want nothing to do with Sherlock Holmes, even though we want to say things that apparently are about him, for instance that in Doyle's fiction he takes cocaine. This is easy to obtain. We just let the name "Sherlock Holmes" refer fictionally to an object which is a value of a variable that is bound by an existential quantifier in the scope of the fiction operator, like this: "In the fiction contrived by Sir Arthur Conan Doyle there is a person called 'Sherlock Holmes' who takes cocaine." In this way we liberate ourselves from the ontic commitment to a dubious being, and what we say can even so be true.

## 16.3 Quantification into N-contexts

As long as we abstain from actually referring to fictional objects, and keep every quantifier ranging over fictional objects within the scope of a fiction operator, we can avoid all contact with them.[37] That a certain world is compatible with a certain fiction doesn't mean that it is possible relative to the actual world. So we should not expect to reach the denizens of that world from here. Their identity should not even interest us. About the domain of a world that is tested for compatibility with

[35] This doesn't mean much if the text is incoherent, and no logically possible world can be compatible with it.

[36] That is, if the fiction is consistent. Cf. (Walton 1990, pp. 61–62).

[37] This is clearly Anthony Everett's preference (Everett 2005).

Doyle's fiction, we as fictional antirealist just need to know that it contains a person called "Sherlock Holmes" with such and such qualities, and we have no need to know who this fictitious person is.[38]

But at times we want to refer to and quantify over fictional and ludic objects from our position in the real world. Or so it seems. We say things about Sherlock Holmes that cannot be said as long as quantifiers and referential expressions are all kept well within the scope of the N-operator. We can say for example that Sherlock Holmes is the most famous protagonist in detective stories. And we can say that Lara Croft is the most famous heroine in videogames. Further we can say that some heroes in detective stories are depicted as having addictions. We can say that Angelina Jolie portrayed Lara Croft in the movie *Lara Croft: Tomb Raider*. And we can say that some fictional characters in computer games are portrayed by human actors in feature films.[39] Talking in these ways amounts to more than quantifying into N-contexts; it amounts to exporting fictional and ludic characters from N-contexts to the surrounding reality,[40] and if we cannot find a good way of explaining away the appearance of this, for instance by showing that we really engage in a kind of pretense when we say such things, as Anthony Everett will have it (Everett 2005, pp. 638–643), or by showing that quantification into N-contexts can be made sense of as substitutional quantification, i.e. quantification over names and name-like expressions only, as argued by Takashi Yagisawa (2001, pp. 22–24 online),[41] it commits us to N-realism (fictional and ludic realism).[42,43]

The problem of quantification into fictional and ludic contexts becomes urgent long before it comes to the question of the legitimacy of exporting ludic objects to the real world, however. It arises once we start to reflect on the apparent fact that real objects like persons (say Queen Victoria) and cities (say London) are often imported to fictions and games, including videogames, from the surrounding world. Also real events are imported, for instance the Afghan war. If we accept this, we actually accept quantification into N-contexts, and there is already a certain degree of N-realism in this. The following example will make clear what quantifying into a fictional context means, and which difference there is between keeping quantifiers

[38] This is different from David Lewis's view. His modal realism requires that the realm of the quantifiers comprises all denizens of all the parallel worlds there are according to him (Lewis 1978).

[39] The sentences used to make these assertions are examples of what Everett talks about as "Fictional Object Sentences" (Everett 2005, p. 625). See discussion below.

[40] Peter Ludlow talks about "quantifying out" (Ludlow 2006, p. 168).

[41] I don't find Yagisawa's arguments quite convincing. The question of substitutional quantification is interesting, but since the focus of this paper is more on entities in videogames than on literary characters, I will not discuss it here. Instead I shall later go into the related question whether ludic entities can be identified with bit patterns or program code.

[42] Walton seems to hold a similar view.

[43] There are several, quite different varieties of fictional realism. However, acceptance of reference to and quantification over some purely fictional entities seems to be common to fictional realists.

within the scope of a fiction operator, and letting quantifiers outside the operator's scope bind variables inside:

(1) In Conan Doyle's fiction there is a city called "London", and a detective called "Sherlock Holmes" lives there.
(2) There is a city called "London", and in Conan Doyle's fiction a detective called "Sherlock Holmes" lives there.

Only in (2), not in (1), is the fictional context quantified into. There are many well known problems with quantification into other contexts governed by intentional and modal operators,[44] problems there are so far no generally agreed-on solutions to, and all those problems will follow us into the fields of fantasy, fiction, and games if we accept quantification into N-contexts.[45,46] But since we have them already, this need not be a real worry. Anyway, to many it will seem preferable to make do only with (1) and avoid (2). They have to argue that it isn't the real city London that figures in Conan Doyle's Sherlock Holmes stories, only a fictional city with some similarities to the capital of the UK. But what does it mean for a fictional city to be similar to a real city?[47] And what does it mean that it is not the real city London Conan Doyle writes fiction about? After all, the author wants his readers to think about the actual city of London and the actual Baker street when he lets it be part of the fiction that Sherlock Holmes lives there.

And when J. F. Kennedy, the American president who was shot to death in November 1963, seems to recur as the target in the "educational" First Person Shooter game *JFK: Reloaded* (released in 1999 and later retracted) it is the real Kennedy we have to do with when we play this game the way it is meant to be played. We imagine that we try to shoot J. F. Kennedy to death. We have a fantasy about something real. This calls for quantification in.

Now, if we accept quantification into N-contexts, at least to the extent that we accept quantification over objects that are imported from reality, what happens to the objects quantified over is that some intentional predicates of a special type will be true of them. For example, if we recognize the real city London as an object in Conan Doyle's fiction, and accept as a truth that in Conan Doyle's fiction, London is the home town of a very smart detective, then we should also accept that the predicate "is such that in Conan Doyle's fiction it is the home town of a very smart detective" is true of London. In so far as fictionality is an intentional property of propositions, this predicate is clearly an intentional predicate, and its being true of London means that London is an accidentally intentional object in Ingarden's

[44] See Quine (1956, 1961b).

[45] Such contexts can be nested. There can be a fiction within a fiction, a fiction within a game, a game within a fiction, or a game within a game. And there can be even more nesting. This creates many additional problems that cannot be addressed in this paper. See Le Poidevin (1995).

[46] Because of these problems, Peter Ludlow warns against introducing an operator of pretense. His arguments are really arguments against any similar operator too (Ludlow 2006, pp. 168–171).

[47] This is a variant of one problem Peter Ludlow raises for a pretense theory (Ludlow 2006, pp. 169–170).

terminology, a real object that is also, or happens to be, an intentional object in being concerned by an act of consciousness—an indirect intentional object in this case, because it is sustained as an (accidentally) intentional object by the meaning of a text that was the direct result of Conan Doyle's creative acts of consciousness a long time ago. Conan Doyle did not create the city of London, but he endowed it creatively with several intentional—more specifically: fictional—properties which are upheld by the meaning of his text, for instance the property of being the fictional home town of a famous fictional detective.

So what comes out of accepting quantification into fictional contexts in the first place is a recognition of fictional properties as a special type of intentional properties. Once we recognize fictional properties of objects, the possibility arises that certain objects are individuated by fictional properties alone, i.e. that they have an identity only in virtue of their fictional properties, which means that they are purely intentional objects.[48] This was Ingarden's view of such entities as Anna Karenina and Sherlock Holmes, and I think the same. My view is a fictional realist view, but it differs from most other fictional realist theories. It is different in several respects from neo-Meinongian fictional realism (Zalta 1983), and it must in particular be kept apart from David Lewis's modal-realistic fictional realism (Lewis 1978), which in spite of some superficial similarities (the use of a modal-logical conceptual apparatus) is a radically different view. It is clearly different from van Inwagen's view (van Inwagen 1977), and in spite of some similarities it seems to differ from Amie Thomasson's view too (Thomasson 2009) My "N-realism" is also significantly different from the fictional realism defended by Benjamin Schnieder and Tatjana von Solodkoff (2009); I shall return to them.

In my theory framework, the difference between Anna Karenina and Sherlock Holmes lies entirely in their intentional properties. They share all their "natural" properties,[49] and these properties are mostly negative: they share, for instance, the property of not being human. They share as well the intentional property of being fictionally human, but many intentional properties divide them. It is essential that each of them is unique in virtue of their intentional properties, they must have an identity as purely intentional objects for it to be possible for us to refer to them and count them among the objects we quantify over. Many objects in fiction[50] do not have such an identity. Then they can only be referred to and quantified over within the fiction, from inside the scope of the fiction operator in the manner of (1) above, not from the outside in the manner of (2). Only when the same object is present in every world compatible with the story told in a work of fiction, or acted out in an episode of playing a videogame, is this object something we can refer to and quantify over from the outside. When a real world object like Queen Victoria is

[48] Sherlock Holmes can (perhaps) be identified as the most famous protagonist in detective stories. But this description clearly presupposes fictional properties. Besides, the description expresses an intentional property itself.

[49] Being a character in a fiction is not what I call a "natural" property. This is one of the intentional properties Holmes and Karenina share.

[50] The same is true of objects in videogames. I shall return to them.

imported into a fiction or a game, then Queen Victoria must be present in a world for that world to be compatible with the story told or acted out—we should accept that if we accept that real world objects actually are imported into games and fiction in the first place. And if the object in question is a purely intentional one like Sherlock Holmes or Lara Croft, the same must hold—Lara Croft must be present in all worlds compatible with the story unfolding in the course of playing *Tomb Raider* for us to be able to reach "her" from the real world.[51]

At this point it will be instructive to discuss the problems Anthony Everett raises for fictional realism (Everett 2005). What Everett sees as the main argument for fictional realism are "*Fictional Object Sentences*", sentences like (γ) "There are fictional characters which could never have been depicted prior to the creation of Raskolnikov." (Everett 2005, p. 624) (γ) seems to directly entail (δ) "There are fictional objects" (Everett 2005, p. 625). In spite of this appearance Everett argues that fictional realism is untenable because it, first, has to recognize objects with a vague identity, second, has to recognize objects about which it is vague whether they exist, and, thirdly, has to recognize logically incoherent objects. As an example of the first difficulty Everett makes up the story of *Frackworld*, in which it is said that "No one was absolutely sure whether Frick and Frack were really the same person or not" (Everett 2005, p. 629). There are many fictional stories that keep the reader ignorant about identities in this way. For an example of the second difficulty he refers to Tatyana Tolstaya' novel *The Slynx*: "Now in the end, I think, it is pretty much left open whether or not there really is a Slynx in Tolstaya's novel" (Everett 2005, p. 630). The third difficulty is illustrated with two incoherent stories: *Dialethialand* where Jules and Jim both are, and are not, distinct people (Everett 2005, p. 633), and *Assymetryville* where Cicero is identical to Tully whereas Tully is distinct from Cicero (Everett 2005, p. 634). Incoherent fiction is common, so the problem seems to be real enough.

My reply to these objections against fictional realism is that a fictional realist should refuse to refer to and quantify over such objects as Frick, Frack, the Slynx, Jules, Jim, Cicero, and Tully precisely because their ontic status is not clear. We are in lack of identity criteria for Frick and Frack, it is not clear whether there really is a Slynx in Tolstaya's novel, and Jules, Jim, Cicero, and Tully have incoherent identities. None of these objects, how many they are or are not, will be present in all worlds compatible with the fictions. A world in which Frick and Frack are identical is compatible with the *Frackworld* story, and so is also a world in which they are distinct. But this means that it is not the same Frick and Frack that are present in these different worlds. As to the Slynx, worlds in which there really is a Slynx as well as worlds in which there is no Slynx are both compatible with Tolstaya's fiction. A logically possible world cannot be compatible with an

[51] Arguably, no purely fictional or ludic object is present in every world compatible with a story. If that is true, quantification into N-contexts will never be quantification over purely fictional or ludic objects, and there will be no commitment to (strong) N-realism. But I will show later that ludic objects that become real, like Norrathian Platinum Pieces, must have been present as ludic objects in all worlds compatible with the ludic story from the beginning.

incoherent story. Since the couple Jules and Jim and the couple Cicero and Tully both have contradictory properties, these couples cannot be present in any logically possible world. There is no way of deciding whether the couple Jules and Jim or the couple Cicero and Tully is the same couple in different impossible worlds. In none of these cases will quantification into the fictional context make sense. Frick and Frack must be seen as governed by quantifiers in the scope of the fiction operator. In the Slynx case what is not clear is whether the Slynx is really governed by an existential quantifier in the scope of the fiction operator or not, and then there is no possibility of exporting this enigmatic being-or-not-being to the real world. There is no reason for us to export impossible beings like Jules and Jim and Cicero and Tully from incoherent fiction to reality as long as they are safely locked up in the scope of a fiction operator, and it isn't clear that it makes sense at all to refer to them. I leave this question to the Meinongians. The only objects I am willing to recognize in a fiction or a game by referring to them and quantifying over them from outside the scope of the operator are objects with a clear identity that are clearly present in all worlds compatible with the fiction in question.

I distinguish between objects in a fiction which are values of variables bound by quantifiers in the scope of the fiction operator and objects which are values of variables bound by quantifiers outside this scope. Here my view differs from the version of fictional realism defended by Schnieder and von Solodkoff (2009). They do not make this distinction, and see it as the responsibility of the fictional realist to decide such questions as the identity or nonidentity of Frick and Frack, and the existence or nonexistence of the Slynx. However, they see the fictional realist's liabilities as limited to objects in coherent fiction. Even so, they make things unnecessarily difficult for themselves as I see it.

I foresee an objection at this point: Isn't it true that to the same extent as critics refer to and quantify over such objects as Raskolnikov and Sherlock Holmes, they will also refer to and quantify over such objects as Frick and Frack and the Slynx, and even to Jim, Jules, Cicero, and Tully? My answer is that we cannot refer to Frick and Frack in the same way as we refer to Raskolnikov (granted that Raskolnikov has a clear identity as a purely intentional object that is the same in every world compatible with Dostoyevsky's novel). As I see it, most of our talk about Frick and Frack and their likes takes place in the scope of a fiction operator. When apparently we are referring to Frack in an utterance of a Fictional Object Sentence, we do not refer to Frack as a fictional person; we refer to Frack as an aspect, or guise,[52] of a character—that is to a property.[53]

[52] The concept of a guise is borrowed from Hector-Neri Castañeda. Guises are central in his ontology. See Castañeda (1977). A guise is a cluster of properties.

[53] Adopting a Castañedian ontology of guises we could maybe do away with ordinary objects. Some of the problems with quantification into N-contexts would then disappear. In return we would get a lot of new problems which I cannot go into here.

## 16.4 How Do Fictions Become Real?

Astonishing things happen in computer games, especially in Massively Multiplayer Online RolePlaying Games: Objects that start their careers as purely ludic or fictional turn real. Norrathian Platinum Pieces, the currency of *EverQuest*, has become a real currency in having achieved real exchange value; this is an example already mentioned. Real social institutions and groups with their inception in MMORPGs like *Second Life*, *EverQuest*, *The Sims Online*, and *World of Warcraft*, to mention a few, are examples too.[54] Another example is the in-game-published newspaper *The Alphaville Herald* in *The Sims Online*, which Peter Ludlow edited through one of his characters, Urizenus. It achieved the status of a real newspaper, at least as regarded by many, in the wake of some dramatic events:

> After blogging a series of articles that discussed unsavory aspects of the gameplay, and further articles critical of the game owner Electronic Arts (EA), the Urizenus account was terminated by EA. When I blogged the termination story along with other stories of online events, I found that many of the stories were picked up by "real world" media outlets [. . .] Many readers and media outlets (in particular the reporters) suddenly took the Herald to be a genuine newspaper (Ludlow 2006, p. 164).

It doesn't stop there: Virtual swords and other virtual artefacts often become real to the extent that they are bought and sold for real money, they can be fought over in the real world, and even be killed for. And there are many more examples. Now, how can such things happen? This is the question we are striving to find the answer to.

Because the transition from fictionality or ludicality to full reality seems to be so easy in computer games, some people tend to think that computer-based ludic objects are more real than traditional ludic and fictional objects. In addition many objects in videogames (Aarseth's "virtual objects") are such that we can interact with them: apparently we affect them causally, and they us, or they affect at least our avatars.[55] This makes them appear even more real. In an MMORPG it is sometimes difficult to tell the difference between other players' avatars and ludic entities that arise from program code alone. All of this makes it tempting to think that ludicality is different from fictionality.

[54] These MMORPGs have a lot in common with virtual meeting places like *Facebook*.

[55] What we really interact causally with in an MMORPG are other active players and the machinery of the game. There are mechanical operations performed by computers connected in a global network, with input from and output to the environment through interfaces, and there is the distributed program execution, influencing and influenced by the behavior of the players. Seen in this perspective, the feeling we have of interacting with ludic objects, including avatars, is an illusion. That what happens to ludic characters depicted on a screen in a videogame is sometimes dependent on the players' action while what happens to fictional characters depicted in a novel is not, is interesting enough in itself, but this does not make ludic characters more real than characters of fiction.

But sometimes objects that originate in what is clearly a fiction, and not computer based, become real too. This is known to have happened to objects in works of literary fiction and in fiction movies: For instance, stories can contain other stories, told within the fiction of the frame story. Famous examples are the *Decamerone* and *Thousand and One Nights*. Stories that start their lives as fictional stories easily achieve independence, becoming real stories in their own right. And sometimes a language that is first described and spoken within a fiction becomes a real language. This is true both of the Elvish of *Lord of the Rings* and the Klingon language of *Star Trek*.[56]

However, when we pay this phenomenon more attention, we will see that these objects were real from the beginning in spite of originating in a fiction. A story which is told in a story is a real story (provided enough of it is told). A language that is described and spoken in a fiction is a real language provided it is sufficiently elaborated; then it can be picked up and used by those who want to learn it. Introducing an invented language like Wolapük or Esperanto in a fiction or a game might actually be a good way to spread it. And in the same way as stories within stories and languages introduced in a fictional environment are real, also art on exposition in *Second Life* is real. Maybe the ontological difference between computer games and traditonal kinds of game and fiction is not so big after all, and maybe all objects in MMORPGs that seem to *become* real, like the *Alphaville Herald*, actually *were* real from the start, as Ludlow suggests. At least ludic and fictional objects that "go real" must have been "real purely intentional objects" from the beginning, in the sense of having all the time been objects we could refer to and quantify over. If not, how could we say it was the same object that now counts as real which earlier counted as fictional? A condition a fictional object must meet in order to be able to cross the line between fiction and reality, is that it be present in all worlds compatible with the fiction (or game-play) as the same object from the start.

It is not the case that all objects in a videogame have a clear identity and can be referred to as individuals. Consider boars in *World of Warcraft*: As long as they are on screen at the same time, we can tell them apart, but when a boar disappears out of sight, and then a quite similar boar comes in sight later, how can we decide whether or not it is the same boar?[57] A world in which it is the same boar is compatible with what goes on in the game, but so is a world in which there are two different boars. In the story acted out in game-play the boars are governed by quantifiers within the ludic parenthesis, and they cannot be exported.[58]

This is my view, based on an approach to fiction and games that makes use of an operator on sentences as well as on predicates, permitting quantification into

[56] As to the latter example see Ludlow (2006, p. 163).

[57] This is related to the issue of demonstrative reference. In a videogame objects like these can apparently be ostensively identified. There is a question whether demonstratives really are directly referring terms. See Asheim (1992, pp. 70–74). For a different view, see Perry (2001, pp. 51–69).

[58] This clearly has a bearing on the question whether ludic objects are identical to props. I will return to that and the related question whether players are identical to their avatars.

fictional and ludic contexts. Peter Ludlow proposes a different strategy which he describes as "highly contentious and no doubt quite difficult to believe on first hearing" (Ludlow 2006, p. 165). His proposal is to do away with pretense altogether, and in particular to drop the pretense operator, in favor of a contextualist view:

> There is no such thing as fiction, and there are no such things as fictional objects. There are, however, certain predicates that are only satisfied in limited contexts of use, and this gives the illusion of different kinds of entities (fictional objects), and different modes of existence (fictional existence).
>
> More specifically, the idea is this: In the case where we have props or actors involved, certain predicates ("is a vampire", "is at stake", "are fangs", "is a slayer") may be true of those props and actors in limited contexts of usage. For example, consider *Buffy The Vampire Slayer* star Sara Michelle Geller. The predicate "is a vampire slayer" may be true of Sara in certain limited contexts (e.g. when she acts or when we watch the show and are caught up in it). In a case where there is no actor involved (as when we read a book that has not been adapted for theater or screen) we can say that certain general claims (e.g. "there is a slayer having certain properties") are true in a limited context (as when we read the book) (ibid.).

What happens when things like Norrathian Platinum Pieces apparently become real is explained as follows: "Norrathian Platinum Pieces always had value in the game and now they have real world value" (Ludlow 2006, p. 171). That is, in the limited context of playing *EverQuest*, "Norrathian Platinum Pieces have value" was always true, and now it is true in much wider contexts.

The merit of Ludlow's approach is twofold: First, he offers an explanation of how apparently fictional or ludic objects become real,[59] second, he avoids all the problems with quantification into contexts governed by a hyperintensional operator[60]: "anything within its scope may be sensitive to substitution down to the lexical level at least. Accordingly, any analysis we introduce within the scope of PRETEND is not guaranteed to preserve truth value, even if the analysan [sic!] is otherwise logically equivalent to the analysandum"[61] (Ludlow 2006, p. 169).

Among the problems with an N-operator, Ludlow concentrates on the problem of comparing real-world objects to objects that are only fictional, as illustrated in (I) "Sherlock Holmes is smarter than any living detective" (Ludlow 2006, p. 168), and (II) "Bertrand Russell resembled the Mad Hatter" (Ludlow 2006, p. 169). Considering that Sherlock Holmes isn't really smart, but just fictionally smart, and that the Mad Hatter doesn't look like anything in reality, only fictionally in Lewis Carrol's *Alice in Wonderland* and in several movies based on it, it is easy to see that there is a problem here. There are several strategies we could choose to solve it. In the Russell vs the Mad Hatter case we could for instance compare a picture of Russell to the looks of the Mad Hatter in the original Disney movie; then it makes sense to say (II). But I will not recommend that as a general stategy. I think the best strategy is to quantify into the fictional contexts over properties, invoking what comes close to

[59] It is interesting that Ludlow does not distinguish between computer games and traditional fiction and game-play in this connection.

[60] Ludlow writes "hyperintentional".

[61] Ludlow's PRETEND can be seen as an interpretation of my N-operator.

higher-order modal logic. So (I) is analyzed as: (I*) "There is a smartness, *S*, such that PRETEND(Sherlock Holmes has *S*), and for every living detective, *x*, the smartness of *x* is lesser than *S*." Ludlow considers a similar analysis: (I**) "there is a degree d, such that PRETEND(Sherlock Holmes was smart to degree d), and No living detective is smart to degree d" (Ludlow 2006, p. 169). He rejects it primarily for the reason that "it does not seem necessary that my assent to the truth of [(I)] should require that there be some specific degree of smartness (some numerical quantity) such that Holmes is smart to that degree" (ibid.). However, as we see from (I*), it is not required that there be some specific numerical quantity.[62] (II) can be similarly analyzed as: (II*) "There is an appearance, *A1*, and an appearance, *A2*, such that Bertrand Russell had *A1*, and PRETEND(the Mad Hatter had *A2*), and *A1* is similar to *A2*."

Ludlow's solution to this problem is contextualistic: "When we truly utter a sentence like [(I)] we are simply considering a hybrid context which includes both the actor who portrays Holmes and all the living detectives, and we are saying that in this context it is true that the actor is Sherlock Holmes and that he is smarter than any living detective" (Ludlow 2006, p. 173). "Similar considerations apply to [(II)]. If the sentence is true, then there is a context broad enough to include both Russell and some actor that, in the context, is the Mad Hatter. Or, if [(II)] is based simply upon our reading or an illustration, then the relevant context includes a general state of affairs in which it is true that there is an individual who is the Hatter and has certain properties" (Ludlow 2006, p. 174). The PRETEND operator is gone, and all the problems with it. In return several new problems are brought in, not least a problematic reliance on actors and props in addition to the fundamental problem of defending this kind of contextualism. But instead of going into that straight away, I want to point out that a similar strategy is also open to me: I can mix the fictional stories of Sherlock Holmes (or relevant parts of them) with some true stories about living detectives to produce a new fiction (corresponding to Ludlow's hybrid context) where Holmes and the living detectives can be compared directly as it were. In the same vein I can create a new fiction by combining a true description of Bertrand Russell with Carrol's fictional description of the Mad Hatter, again to the effect that the two can be directly compared in the scope of the PRETEND operator.[63,64] There are some advantages to retaining the PRETEND operator. Then we don't have to say that in some contexts it is true that someone is the Mad Hatter even if the Mad Hatter is portrayed by nobody. Besides, Ludlows strategy doesn't work for all relevantly similar cases. Ludlow himself makes a remark (Ludlow 2006, p.169n) on the similarity between (I**) as an analysis of

[62] Maybe Ludlow takes exception to quantification over properties while finding quantification over numerical quantities more palatable.

[63] By quantifying in over qualities, as before.

[64] For a new and very interesting approach to comparisons of this kind, see Wehmeier (2011).

(I) and Russell's analysis of "I thought your yacht was longer than it is".[65] But Ludlow's own strategy will simply not work in the Russell case. There cannot be a hybrid context that includes the yacht being as it actually is along with the yacht as it is erroneously thought to be without contradiction, and I assume that a context should at least be logically possible. In this case an intentional operator is needed in a viable analysis of the sentence.

In addition to the problems just discussed, there is the hyperintensionality of the PRETEND operator—and of similar operators, hence of the generic N-operator. To get around this problem we could replace "$N_I(p)$", where "p" is a complete (closed) sentence, and "$N_I(Fx)$", where "F" is a predicate and "x" a free variable, capable of being bound by a quantifier outside the scope of the N-operator, with "$N_I$('p' is true)" and "$N_I$('F' is true of x)" respectively, and we could treat constructions with more than one free variable similarly.[66] We could then make one more move, and introduce a new operator, "T", so defined that "$T_I$('p')" is equivalent to "$N_I$('p' is true)", "$T_I$('F', x)" is equivalent to "$N_I$('F' is true of x)", "$T_I$('G', x, y)" is equivalent to "$N_I$('G' is true of x, y)", and so on. The T-operator is not a sentence operator; it is an operator that builds a closed sentence from the quotation of another closed sentence, and an open sentence with one or more free variables from the quotation of a predicate with one or more open places. By using quotes in this way the hyperintensionality problems are neutralized,[67] but we loose little of the expressive power of the N-operator by replacing it with the T-operator.

Now back to Ludlow's contextualism. The importance of context has been recognized by more and more philosophers and linguists over the last years, and there is a growing understanding that context is essential for the truth and also the meaning of sentences uttered.[68] This lends some plausibility to Ludlow's proposal. Following him, we should say that, besides being true in the context of playing *Tomb Raider*, the sentence "Lara Croft is an archeologist" is true in a context where Angelina Jolie is portraying Lara Croft, and in contexts where we watch the feature movie and are engaged by it. In such contexts the predicate "is an archeologist" is true of Angelina Jolie as well. However, in most other contexts this sentence is not true, and the predicate in it is not true of Angelina Jolie in them. What we learn from that if Ludlow is right, is that the meaning of "is an archeologist" is not fixed; it varies with the context (like, for instance, the meaning of "big"). It is compatible with Ludlow's story that the meaning can change over time: maybe in the future "is an archeologist" will be counted as true in most contexts not only of people who are regarded as archeologist by today's standards in these contexts, but also of actors portraying archeologist. So far so good. But Ludlow also maintains that we can now do without the PRETEND operator—and any similar operator, I assume. Is that really true?

[65] In Russell (1905).

[66] This move is a simplification of Quine's strategy in Quine (1956).

[67] Substitution in a quotation is simply not allowed.

[68] See Carston (2002).

If a sentence is true in a certain context, or a predicate is true of an object in a certain context, it must be possible to specify these contexts. If Ludlow is right, the sentence "Angelina Jolie is an archeologist" is neither true nor false in itself, but there are contexts in which the sentence is true. What we should say is "In [contexts indicated] 'Angelina Jolie is an archeologist' is true", and "In [contexts indicated] 'is an archeologist' is true of Angelina Jolie". But this comes close to introducing an operator that builds a sentence from the quotation of another sentence, and a predicate from the quotation of another predicate. We could even abbreviate the expressions of these semantic constructions, writing "$T_I$('p')" for "In [contexts indicated] 'p' is true", and "$T_I$('F', x)" for "In [contexts indicated] 'F' is true of x". Now there is clearly an operator present, and though it is not a PRETEND operator, it comes pretty close in expressive power. So maybe Ludlow's proposal is not as radical as it appears to be, and not at all so different from the pretense-theoretical treatment of fiction and games he attacks.

Now a few words about the relationship between actors, avatars, and props on the one hand, and in-game ludic and fictional characters and objects on the other. Is there an identity here, or is it a different relation? In some cases the relation seems to be identity, in other cases it seems to be representation. For example, in children's fantasy play it seems that mud pies become genuine pies by being ludically provided with pie qualities to replace their mud qualities. We get things wrong if we assume that mud pies *represent* real pies, I think. On the other hand it also happens in fantasy play that a prop clearly represents something else that is also real, for instance a doll may represent a person the child knows, say a parent. We cannot talk about identity then; the doll is not identical to the parent. The parent in question may even intrude from outer reality into the ludic parenthesis, still being her- or himself; or the parent can be present as an actor, representing a monster, for example. The same is true of a child engaged in play: the child may be present as her- or himself, or be playing the role of somebody or something else: for instance a young boy engaged in fantasy play will at times be himself; at other times he will be Batman, say. In a stage play or a movie it sometimes happens that actors portray themselves,[69] but it is more common that they portray others—actual persons (most of them no longer alive) or merely fictional persons. In a First Person Shooter videogame the player is sometimes, but not always, present as her- or himself. When the player pretends to be somebody else we cannot talk about identity. And what about the relation between player and avatar, is that identity? A player can have more than one avatar in the same game, and the avatars are not identical with each other. Some think that the objects depicted in a videogame are identical to the bit patterns that others see as representing them,[70] or to a piece of program code. Those who think that way have to hold that just like mud pies, these bit patterns loose most of their physical properties in the ludic parenthesis, acquiring different

[69] Like in Thomas Bernhard's play *Ritter, Dene, Voss*.

[70] See Sageng (2007).

properties in return.[71] But such things as bit patterns and the piece of program code that creates them may at different times be used to depict what are meant to be different ludic objects, and the same ludic object will be depicted by different bit patterns in different situations. There are a number of problems here.

Ludlow is fully aware of the problems there are with identity statements in this field. He takes as an example the statement "Sara Michelle Geller is Buffy Summers (The Slayer)", and comments on it:

> We certainly say things like this (or at least we certainly hear things like this), and two questions naturally arise: can we avoid treating this as an identity statement, and if we can't, how badly will things go for us? The answer to the first question is "probably", and the answer to the second question is "not badly at all" (Ludlow 2006, p. 178).

But what Ludlow calls an identity statement here, is clearly not what we are used to think of as an identity statement:

> On such a view, both the terms "Sara Michelle Geller" and "Buffy Summers" would refer, albeit to distinct individuals with different modal profiles.
>
> On this view identity statements would work just like familiar accounts of the statue and the clay (ibid.).

But distinct individuals with different modal profiles are clearly not identical in the usual sense of that word, and in most accounts of the statue and the clay they are seen as nonidentical.[72] Moreover, Ludlow allows that a is b, and a is c, while b is not c.[73] It is, however, a theorem of identity theory that if $a = b$ and $a = c$ then $b = c$. So the relation Ludlow talks about as identity is actually a relation different from identity as commonly understood.[74] The question is what the relation really is. To me it seems that it must be the same kind of relation that according to Ingarden holds between a purely intentional object and a real substratum of it.

We are still not finished with the question how fictions become real, however. The key to an answer is also to be found in Ingardens work, I think. It never happens that a fictional person or a fictional physical object becomes real. The fictional and ludic objects that become real are all objects of the kind Ingarden regards as purely intentional, for instance stories, languages, newspapers, money, institutions and organizations, and other kinds of artefact. Only man-made objects that have their origins in fiction and games can achieve the status of real-world objects of the same man-made kinds.

[71] The bit pattern for Lara Croft is two-dimensional and not a human being. But ludically Lara Croft is three-dimensional and a person.

[72] See for example Wiggins (1980), Thomson (1998).

[73] "different actors can be Hamlet" (Ludlow 2006, p. 179).

[74] What is important to Ludlow, however, is not whether this relation really is identity. His concern is how to avoid reference to purely fictional and ludic objects, so if Sara Michelle Geller can go proxy for Buffy Summers in statements about what happens in the show, he is probably happy with that.

## 16.5 Concluding Remarks

So what is real in a computer game? More is real in a computer game than in a traditional work of fiction like a novel,[75] but just as much is probably real in traditional game-play.[76] In a game there are rules, and the rules are real. In a computer game rules are "hard-wired" so to speak; they are in a way more compelling than the rules of a traditional game, which are subject to interpretation when applied, but that doesn't make them more real. In all game-play, computerized or not, real interaction takes place, but the interaction is not interaction with merely ludic objects, nor with real objects that are not physically but only symbolically present in the game. The real interaction is with props (including, in the case of computer games, the game machinery) and with other players. This kind of interaction also takes place on stage: in traditional theater according to a manuscript, in performance art more spontaneously—in stage play also the interaction between actors and audience counts.

As we have seen, real-world objects originate in traditional fiction as well as in computer games, but more, and more diversified, real-world objects are spawned by MMORPGs than by traditional works of fiction. This is not a difference in ontic quality, however. Novel phenomena do arise in computer games, in particular in MMORPGs, but there are no *ontological* novelties as far as I can see.

## Games

Everquest. 1999. Sony Online Entertainment, PC.
JFK: Reloaded. 2004. Traffic Games, PC.
Second Life. 2002. Linden Lab, PC.
Tetris. 1984. Alexey Pajitnov.
The Sims Online. 2002. Electronic Arts, PC.
Tomb Raider. 1996. Eidos Interactive, PC.
World of Warcraft. 2004. Blizzard/Vivendi, PC.

## References

Aarseth, Espen. 2005. The perception of doors: Fiction vs simulation in games. In Proceedings of the Digital Arts and Culture conference, ITU, December 1–3, 2005, 59–62.
Asheim, Olav. 1992. *Reference and intentionality*. Oslo: Solum Forlag.
Asheim, Olav. 1996. Objects of imagination and belief. *Nordic Journal of Philosophical Logic* 1 (1): 61–78.
Barwise, Jon, and John Perry. 1983. *Situations and attitudes*. Cambridge, MA: MIT Press.

[75] See Juul (2008).
[76] Take football as an example.

Berto, Francesco. 2009. Impossible worlds. In *The Stanford encyclopedia of philosophy*. http://plato.stanford.edu/entries/impossible-worlds/.
Carston, Robin. 2002. *Thoughts and utterances. The pragmatics of explicit communication*. Oxford: Blackwell.
Castañeda, Hector-Neri. 1977. Perception, belief, and the structure of physical objects and consciousness. *Synthese* 35: 285–351.
Castronova, Edward. 2001. Virtual worlds: A first-hand account of market and society on the Cyberian frontier. CESifo Working Paper No. 618, December, 2001.
Davidson, Donald. 1970. Mental events. In *Experience and theory*, eds. L. Foster and J. Swanson. London: Duckworth.
Davidson, Donald. 1993. Thinking causes. In *Mental causation*, eds. John Heil and Alfred Mele. Oxford: Clarendon.
Everett, Anthony. 2005. Against fictional realism. *Journal of Philosophy* 102: 624–649.
Hintikka, Jaakko. 1962. *Knowledge and belief*. Ithaca/London: Cornell University Press.
Hintikka, Jaakko. 1969. Semantics for propositional attitudes. In *Philosophical logic*, eds. J.W. Davis et al. Dordrecht: Reidel.
Hintikka, Jaakko. 1975. Impossible possible worlds vindicated. *Journal of Philosophical Logic* 4: 475–484.
Ingarden, Roman. 1960. *Das literarische Kunstwerk*. Tübingen: Max Niemeyer Verlag.
Ingarden, Roman. 1962. *Untersuchungen zur Ontologie der Kunst*. Tübingen: Max Niemeyer Verlag.
Ingarden, Roman. 1964. *Der Streit um die Existenz der Welt I. Existentialontologie*. Tübingen: Max Niemeyer Verlag.
Ingarden, Roman. 1965a. *Der Streit um die Existenz der Welt II. Formalontologie 1. Teil*. Tübingen: Max Niemeyer Verlag.
Ingarden, Roman. 1965b. *Der Streit um die Existenz der Welt II. Formalontologie 2. Teil*. Tübingen: Max Niemeyer Verlag.
Ingarden, Roman. 1974. *Über die kausale Struktur der Welt. Der Streit um die Existenz der Welt III*. Tübingen: Max Niemeyer Verlag.
Juul, Jesper. 2008. The magic circle and the puzzle piece. http://opus.kobv.de/ubp/volltexte/2008/2455/pdf/digarec01_03.pdf.
Kanger, Stig. 1957. Provability in logic. In *Stockholm Studies in Logic*, I, Stockholm: Almquist and Wiksell.
Kripke, Saul. 1963. Semantical considerations on modal logic. *Acta Philosophica Fennica* 16: 83–94.
Le Poidevin, Robin. 1995. Worlds within worlds? The paradoxes of embedded fiction. *British Journal of Aesthetics* 35: 227–238.
Lewis, David. 1968. Counterpart theory and quantified modal logic. *Journal of Philosophy* 65: 113–126.
Lewis, David. 1978. Truth in fiction. *American Philosophical Quarterly* 15: 37–46.
Ludlow, Peter. 2006. From Sherlock and Buffy to Klingon and Norrathian platinum pieces: Pretense, contextalism, and the myth of fiction. *Philosophical Issues* 16: 162–183.
Perry, John. 2001. *Reference and reflexivity*. Stanford: CSLI Publications.
Priest, Graham. 2008. Creating non-existents: Some initial thoughts. *Studies in Logic* 1(1): 18–25.
Prior, A.N. 1957. *Time and modality*. Oxford: Clarendon.
Quine, W.V. 1956. Quantifiers and propositional attitudes. *Journal of Philosophy* 53: 177–187.
Quine, W.V. 1961a. On what there is. In *From a logical point of view*, 1–19. Cambridge, MA: Harvard University Press.
Quine, W.V. 1961b. Reference and modality. In *From a logical point of view*, 139–159. Cambridge, MA: Harvard University Press.
Rantala, Veikko. 1982. Quantified modal logic: Non-normal worlds and propositional attitudes. *Studia Logica* 41: 41–65.
Russell, Bertrand. 1905. On denoting. *Mind* 14: 479–493.

Sageng, John Richard. 2007. The reality of game objects. In *Conference paper at the conference of The Philosophy of Computer Games*, Reggio Emilia, January 2007. http://game.unimore.it/Papers/J_Sageng_Paper.pdf.

Schnieder, Benjamin, and Tatjana von Solodkoff. 2009. In defence of fictional realism. *The Philosophical Quarterly* 59: 138–149.

Searle, John. 1995. *The construction of social reality*. New York: Free Press.

Thomasson, Amie. 2005. Ingarden and the ontology of cultural objects. In *Existence, culture, and persons: The ontology of Roman ingarden*, ed. Arkadiusz Chrudzimski, 115–136. Frankfurt: Ontos.

Thomasson, Amie. 2008. Roman ingarden. In *The Stanford encyclopedia of philosophy*. http://plato.stanford.edu/entries/ingarden/.

Thomasson, Amie. 2009. Fictional entities. In *A companion to metaphysics*, ed. Jaegwon Kim, Ernest Sosa, and Gary Rosenkrantz. Oxford: Blackwell.

Thomson, Judith Jarvis. 1998. The statue and the clay. *Nous* 32: 149–173.

van Inwagen, Peter. 1977. Creatures of fiction. *American Philosophical Quarterly* 14: 299–308.

Walton, Kendall L. 1990. *Mimesis as make-believe*. Cambridge, MA: Harvard University Press.

Wehmeier, Kai. 2011. Subjunctivity and cross-world predication. *Philosophical Studies*.

Wiggins, David. 1980. *Sameness and substance*. Cambridge, MA: Harvard University Press.

Woods, John. 1974. *The logic of fiction: A philosophical sounding of deviant logic*. The Hague: Mouton.

Yagisawa, Takashi. 2001. Against creationism in fiction. In *Philosophical perspectives, 15, Metaphysics,* ed. James Tomberlin. Oxford: Blackwell. http://www.csun.edu/~vcoao0fk/Creationism.PDF.

Zalta, Edward. 1983. *Abstract objects*. Dordrecht: Reidel.

# Chapter 17
# Are Computer Games Real?

**Patrick Coppock**

## 17.1 The Implicit Reality of Computer Games

Jesper Juul (2005: 41) in *Half Real: Video Games between Real Rules and Fictional Worlds*, argues that video- (or computer) game worlds are best conceived of as "half-real", since playing games is a real world activity people take part in and feel more or less involved with, and gameplay activities may have negotiable consequences for players and for others they have relationships with in the real world. I find this notion of attributing a kind of hybrid, "halfway house" ontological status to games and what goes on in them as we play them an interesting and challenging one. Juul has been criticised by some philosophers[1] and game studies theorists[2] for a certain degree of theoretical and philosophical naivety or imprecision on this point, but I nonetheless believe he raises a number of relevant issues well worth discussing.

Through the design mechanics of their explicit and implicit rule systems, their fictional worlds and objects that inhabit them, and the particular forms of (inter) action they invite players to engage in, digital games manage to involve large numbers of players for extended periods of time in forms of play, either alone or together with others. At the same time, they allow players to enter or leave the game at any time, and to decide from moment to moment whether they are willing to accept the consequences of following, or not following, the game rules as they play. These factual realities of gaming activities alone create a considerable potential for

[1] Kücklich (2008), Bogost (2007, 2008).

[2] See the two reviews by Carbonell and Nichols on the RCCS (*Resource Center for Cyberculture Studies*) website: http://rccs.usfca.edu/bookinfo.asp?ReviewID=381&BookID=310. Accessed 8 December 2010. http://rccs.usfca.edu/bookinfo.asp?ReviewID=412&BookID=310. Accessed 8 December 2010.

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negotiable real world consequences for players, depending on how seriously they take the experiential and other outcomes of games they play, the amount of time they spend playing, and whether or not real world material, economic or other cultural values are at stake for them while playing, winning or losing a game, and so on.

If we are willing to accept that *playing computer games* is a real world activity with potential real life consequences for players – i.e. that there may exist experienceable, meaningful effects of play activity that are mutually recognisable, intersubjectively negotiable and ethically appraisable in relation to known systems of cultural values – then why can we not simply say that the fictional worlds generated by these advanced technological artifacts, designed to facilitate player engagement and investments of time and energy in what appears to go on in these worlds, are *real* too, since they clearly constitute an integral part of our everyday experience of the larger cultural reality we live in and are part of?

In what follows, we shall investigate to what extent it is possible to objectively qualify and quantify what we – for the time being – shall refer to here as the *implicit reality* of computer games and their fictional worlds. One way of approaching this issue is to seek to ascribe to computer games a hybrid ontological status as *mediated cultural artifacts*. This *hybrid* ontological character derives from the fact that computer games possess sets of characteristics that allow certain aspects of their reality to be categorized as *tangible cultural artifacts* and other aspects as *intangible cultural artifacts*.

## 17.2 Computer Games as Tangible Cultural Artifacts

The increasingly sophisticated technological platforms that digital games are not only *played* on, but also *depend physically on* for their very existence, can be said to be real in the sense that they possess a series of characteristics that render them part of a subsection of a wider category of *cultural units*[3] (Eco 1979; Schneider 1968), that we shall refer to here as *material forms* or *tangible artifacts*. Other cultural units of this kind are bodies,[4] buildings, machines, sculpture, art, books, clothes, food and drink and any other designed physical object that can be meaningfully employed to serve some function or other.

[3] Schneider (1968:1–2) introduces the notion of cultural units as follows: "A particular culture, American culture for instance, consists of a system of units (or parts) which are defined in certain ways, and which are differentiated according to certain criteria. These units define the world or the universe, the way things in it relate to each other, and what these things should be and do. [. . .] A unit in a particular culture is simply anything that is culturally defined and distinguished as an entity. It may be a person, place, thing, feeling, state of affairs, sense of foreboding, fantasy, hope or idea."

[4] The notion of bodies as designed artifacts may seem counter-intuitive. But I have decided to include it here since human bodies, though by no means perfect examples of design principles are essentially products of a long period of evolutionary steered, but socio-culturally mediated process of refinement and specialization.

A computer game in itself, including its fictional world, cannot be said to exist if there does not exist, somewhere in the world, a technological platform[5] on which it can be archived, and some kind of physical user interface players can use to access, and interact with, the game world. But merely having a physical platform to exist on, and engage with players by way of, is not enough. In order to be experienced by players, and to engage them interactively during play, computer games depend on precisely designed, finite sets of algorithmically generated strings of machine code often referred to as "game-engines".[6] These code string sets embody the fundamental rule systems of games, and procedural instructions for how the game world is to be constructed and interacted with in real time via the game interface during play.

Game-engines, then, are themselves one subset of *immaterial* cultural artifacts – *algorithmic texts*[7] – since someone (usually more than one person) has conceptualised, designed and encoded them. In order to function optimally, these algorithms must be syntactically robust internally, and stored on their respective physical support systems in ways that make them reliably reusable and reproducible over time as core components of functional, rule-governed gameplay. Game-engine code, then, must display, or possess, not only a high degree of internal logical and processual *coherence*, but also a high degree of existential or ontological *durability* that, in part, must be guaranteed by the specialized forms of physical support on which it has been encoded and stored.

In some cases, the instructional code strings of game-engines are designed and constructed in ways that allow not only designers and programmers, but also players, to manipulate and modify them *post hoc* – an activity known in player circles as "modding".[8] In this case the game-engine algorithms, and the fictional possible worlds they are designed to generate and manage interactions with during play, become more open, processual entities that are to varying degrees – depending on configuration choices by their designers – rewritable or reconfigurable during play. The game engine then acts as a kind of *de facto* "sandbox" environment that supports and encourages player experimentation and innovation activities.

This increased openness to change at the level of the algorithms governing the game rule systems opens up, too, as Mia Consalvo (2009) has pointed out, a potential for "cheating", and other types of "subversive" creative activities on the part of players. Obviously, not all game designers are interested in facilitating radical forms

[5] See Montfort and Bogost (2009: 145–150) for an introduction to the nascent field of *platform studies*. The authors distinguish five strata of digital media studies, of which platform studies is one of the more recent: (i) Reception/Operation Studies, (ii) Interface Studies, (iii) Form/Function Studies, (iv) Code Studies and (v) Platform Studies.

[6] See Galloway (2006). For further discussion and exemplification of game-engine types see http://gpwiki.org/index.php/Game_Engines. Accessed 14 December 2009. See also http://en.wikipedia.org/wiki/Game_engine. Accessed 14 December 2009.

[7] See Manovich (2002), Galloway (2006).

[8] For further discussion of the symbiotic relationship between modding and cheating see Galloway (2006), Wark (2007), Consalvo (2009).

of player intervention at the level of the basic structure and functionality of the game world. So, in practice we find different degrees of "openness" being made available to players in different game worlds. Virtual world designer Richard Bartle (2008) posits a theoretical distinction between (i) "game worlds" such as *World of Warcraft*[9] where gameplay rules are fully integrated into its design; (ii) "social worlds" such as *Second Life*[10] where they are not; (iii) "high persistence worlds", such as *Eve Online*, where changes to the game world made by players endure over time, and (iv) "low persistence worlds", such as *Lord of the Rings Online*,[11] which quickly reverts to its default state after a while.

What is key for our current discussion, however, is the fact that the essentially *immaterial* game-engine code that affords reiterated actualisation of fictional game worlds and their rule systems, in concert with interactions (creative or otherwise) by players *vis-à-vis* these worlds by way of a computer, play-station or other interface, must always be stored on some kind of *physical medium* – a server, a hard disc, a CD ROM, a DVD, or flash-drive cartridge. It is only when "embodied", or "packaged" in this way that the code sequences that generate the game world and its rules become tangible aesthetic – and commercial – objects able to compete for a certain market value out in the world. They can then be sold, given away on trial, or otherwise distributed, physically or via the Internet, for fruition in locations other than that of their origin.

Indeed, one of the most important sides of the material cultural reality of contemporary computer games is their continually blossoming economic value as consumer commodities. In 2006, sales of U.S. computer and video game software were estimated to have reached $7.4 billion, according to the Entertainment Software Association [ESA].[12] A *New York Times* article cited net sales of $500 million for the *Grand Theft Auto IV* game in the first week after its release in April 2008,[13] and in February 2009, ESA reported that total game software and hardware sales in the USA during 2008 had topped $22 billion.[14] In early June 2011, Reuters quoted a global game industry revenue forecast of $65 billion.[15] Millions of individuals all over the world now spend significant portions of their time taking part in massive-multiplayer role-playing games on the Internet, and the economies of the most well known of such games often equal those of small real world countries.

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[9] http://www.wow-europe.com/en/index.xml. Accessed 14 December 2009.

[10] http://secondlife.com/. Accessed 14 December 2009.

[11] http://www.lotro.com/. Accessed 8 January 2010.

[12] For further details see these online ESA Newsletter reports: http://www.theesa.com/facts/index.asp. Accessed 11 June 2010. http://seekingalpha.com/article/32842-profiting-from-the-love-of-gaming. Accessed 11 June 2010.

[13] For further details see this *New York Times* online article: http://www.nytimes.com/2008/05/07/technology/07game.html?scp=1&sq=grand+theft+auto+IV&st=nyt. Accessed 11 June 2010.

[14] http://www.theesa.com/newsroom/esa_newsletter/february2009/index.html. Accessed 11 June 2010.

[15] http://uk.reuters.com/article/2011/06/06/us-videogames-factbox-idUKTRE75552I20110606. Accessed 11 June 2011.

As combinations of *material* technological support platforms and other packaging forms, and *immaterial* processual-procedural entities represented by the game-engine algorithms that encode the rules of the interactive 2D or 3D fictional worlds they are designed to bring into being during play, computer games can be considered a contemporary *avant garde* of a hybrid sub-category of *multimodal*[16] cultural artifacts that have been referred to previously in the aesthetic and literary sciences as "open works", perhaps most notably by Umberto Eco (1979, 1989). Speaking of certain pieces of music written in the mid 1970s by then *avant garde* composers such as Karlheinz Stockhausen, Luciano Berio, Henri Pousseur and Pierre Boulez, Eco (1989: 3) notes that "[t]hey appeal to the initiative of the individual performer, and hence they offer themselves, not as finite works which prescribe specific repetition along given structural coordinates, but as 'open' works, which are brought to their conclusion by the performer at the same time as he experiences them on an aesthetic plane." But it is also clear, as he subsequently goes on to point out, that the author of an aesthetic open work, or *work in movement*, as he also refers to it, is always offering "the interpreter, the performer, the addressee a work *to be completed*. He does not know the exact fashion in which his work will be concluded, but he is aware that once completed, the work in question will still be his own" Eco (1989: 19).

Eco characterizes "open works" as *communicative strategies* designed by authors with an active interpretational role for the reader in mind. "An open text cannot be described as a communicative strategy if the role of its addressee (the reader in the case of verbal texts) has not been envisioned as at the moment of its generation" (Eco 1984: 3). He also adds: "The reader as an active principle of interpretation is a part of the picture of the generative process of the text" (*ibid.*: 4). Of course, there is nothing really new in saying that it is only due to an intimate, reciprocal interaction between mediated cultural artifacts and people who read, play with and interpret them, that meaning and cultural value can be attributed (intentionally or otherwise) to what they are "about". Many possible parallels can be drawn between this understanding of openness in the design of "traditional" aesthetic works in music, literature and cinema, and similar intentionally inscribed forms of aesthetic and structural openness in the design of contemporary computer games, especially those that display social media characteristics. Jesper Juul (2005: 121), for example, also points out that "[g]ames project fictional worlds through a variety of different means, but the fictional world is imagined by the player, and the player fills in any gaps in the fictional world."

Eco's (1994a) theoretical model of textual interpretation presupposes three types of intention at play in fruition of open works: intentions of the empirical author (*Intentio Auctoris*), intentions of the text itself (*Intentio Operis*) and intentions of the empirical reader (*Intentio Lectoris*). The *Intentio Operis* functions as a kind of "open interface" where author and reader intentions can engage with one another as types of "textual presence". In reality, all three *intentio* are explicit or implicit

[16] For some recent work on multimodality see Baldry (2000).

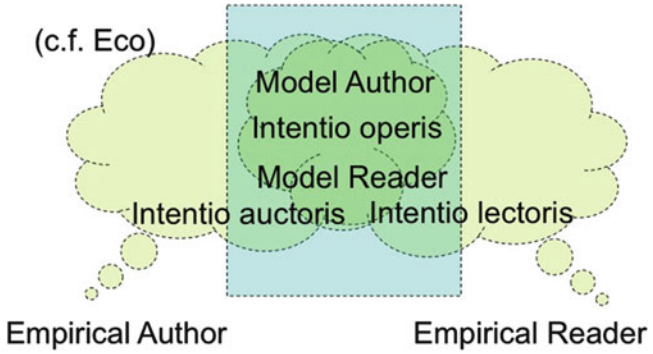


**Fig. 17.1** The Play of Intention in Text

*strategies* intentionally (and occasionally not) inscribed in the text by its empirical author. The *Model Reader* is based on an author's own presuppositions about the linguistic and cultural competencies readers are required to possess or acquire if they wish to *cooperate optimally* with the text to understand, interpret and evaluate it. The *Model Author* is a patchwork of textual devices – structural, semantic, rhetorical, stylistic, linguistic and so on – scattered around in the text that afford a gradual construction on the part of readers of an idea of the author as "other" – as a kind of *virtual interlocutor* with a unique personal style, a certain way of communicating, and so on, with whom readers can become more and more acquainted with as they work their way through the text.

Figure 17.1 above offers a simplified graphical representation of the overlapping interplay of author, reader and text intentions during the process of reading and interpreting literary, or other, texts.

It is of course fairly easy to project this way of thinking onto computer games as "texts",[17] which, although very large numbers of people often play an active role in their design and production, generally do have one "lead designer". Games are often characterized as "genres" ("action", "quest", "multiplayer" and so on), that offer consistently recognizable "styles" of play, fictional world design, and ways of constructing an intimate playful relationship between players and their in-game characters or other entities controlled by them. With regard to the issue of empirical authorship of games, this is rather more complicated when seen in relation to conventional literary norms. While a few well-known, popular games such as *Civilization* (Will Wright), *The Sims* (Sid Meier) intentionally use the name of their principal, "originating", designer when branding and marketing them, others, for example *Nintendo*, deliberately cultivate a more communitarian, corporate brand image, while at the same time placing the player and their personal dreams and desires at the centre of attention during branding and marketing activities.

[17] See Compagno and Coppock (2009b) and Maietti (2004) for discussion of games as variants of text.

## 17.3 Gameplay Practices as Intangible Cultural Artifacts

Since no computer game can be experienced in full unless someone or something is interacting with its material support system and the immaterial rule-systems delineated by the algorithmic procedures and processes that are afforded by these material structures, the *embodied gameplay activities* of players in play are necessarily *an integral part of what the game itself is*. The existence of a football field, the rules of the game and a football alone do not, after all, constitute a game of football. We need two teams of players to actualize it through play. The role of the audience is not irrelevant either in this connection, as their expectations and reactions can influence how players think, feel, and play. "No play, no game – for nobody", in other words. This "ontological" necessity of the presence of the player, and whatever he or she does during gameplay, for the existence of the game *qua* game is often underplayed. This has quite likely to do with the fact that, as Ken Friedman (2007) of the Institute for Communication, Culture and Language at the Norwegian School of Management, points out, most definitions of cultural artifacts tend to focus on their physical and functional qualities "as things, speaking of objects and remains rather than process or production." He cites in this connection historian and philosopher of technology Mario Bunge (1985: 231), who begs us to remember "that an artifact can be a thing, a state or a process, and that it can be *physical, biological or social*."

As a concrete example of what he refers to as *behavioural artifacts*, Friedman points to individual performances of scored pieces of music that will always differ slightly from performer to performer, and from performance to performance, but of which only very few are actually archived – for example on video – for posterity. It is thus primarily, he continues, "space, place, time and history" that "establish the constraints that define behavioural artifacts." Such artifacts are primarily "ephemeral" and thus too, *intangible*, but they are nonetheless deeply embedded in our cultures and instantly recognizable by us as refined, "designed" (or if we will, "cultivated") blends of both spontaneous and habitual forms of aesthetic, or other, human practice.

So it must then be legitimate for us to claim that at least *one aspect of the existence* of computer games and their fictional worlds is that they *also* embody quite specific forms of cultural practice – intimately coupled with players' subjective (and intersubjective) experience and negotiation of meaning during active participation in gameplay processes – that can be categorised as *immaterial forms*, or *intangible cultural artifacts*. These will be the precise ways in which each single instance of gameplay is actualized as a "scripted" performance, subject each time to variations resulting from individual players' interpretations of the rules, and the tasks they face, as they play the game.

Computer gameplay is developing into an increasingly sophisticated and established form of cultural practice. Playing a game may be seen as similar to going to an opera, theatre, cinema or shopping mall, playing tennis, reading a book, talking to others for fun, watching a television program, a video DVD, or listening

to music on an iPod. This general category of *intangible cultural artifacts*, then, will encompass all types of practice we engage in, alone or with others, and generally *also* involves interactions with, or manipulations of, *tangible cultural artifacts*. In general, tangible cultural artifacts, too, will only manage to realize their specific *semiotic*, and *existential* cultural role through their use in social situations that offer meaningful connotations for people who use them.

Also at the societal, institutional level, we might claim that our more organized systems of cultural practice – work, play, education, training, religious and other rites, sport, science, agriculture, politics, business, economics and all other forms of productive, creative or artistic activity we might like to mention – are all examples of blends of tangible and intangible cultural artifacts, as defined above. Today, more and more traditional sense-making, or sense-sharing, processes, characterized largely in the past by practices involving face-to-face interaction and communication, are morphing into technologically mediated forms of practice where we increasingly encounter and attribute meaning to *others and otherness*[18] through interactions that involve, and blend, tangible and intangible cultural artifacts.

A list of examples of this kind of situation, of which gameplay activities in networked social media environments is but one, is steadily growing and is, of course, potentially endless.

## 17.4 Games and Gameplay Practices as Mediated Cultural Artifacts

At this stage, we shall introduce a third, hybrid category of cultural artifacts in order to grasp what are one of the most salient characteristics of the cultural reality of computer games: their *mediality*[19] (Friesen and Hug 2009; Fischer-Lichte et al. 2001; Mersch 2003, 2006), *multimodality*[20] (Baldry 2000; Baldry and Thibault 2006) and *transmediality*[21] (Jenkins 2008).

[18] See Coppock (2009a, b, c).

[19] Norm Friesen and Theo Hug (2009: 67–68) define *mediality* as "designating the interaction of technology, society, and cultural factors through which institutionalized media of communication such as the press, television, or the World Wide Web produce, transform, and circulate symbols in everyday life. It is this total media system, and not specific instances of communication, that are of principal importance. Mediality in this sense can be said to develop out of or to supersede communication activity or communicativity".

[20] For an overview of recent interdisciplinary multimodality research see the website of the Third International Conference on Multimodality: http://www.multimodality.it. Accessed 5 December 2010.

[21] Henry Jenkins (2008: 95–96) defines *transmedia storytelling* as storytelling "across multiple media platforms with each new text making a distinctive and valuable contribution to the whole. In the ideal form of transmedia storytelling, each medium does what it does best."

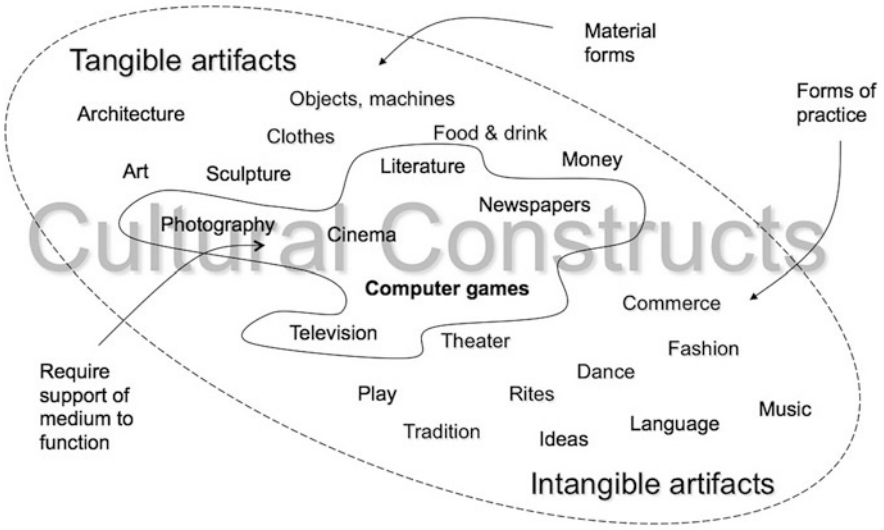


**Fig. 17.2** Types of Cultural Artifacts

Computer games can only perform their designated cultural function of affording gameplay experiences for players when intimately embedded in a high tech environment capable of managing and mediating both *tangible* and *intangible* cultural units that consist of, and are constituted by *material forms* coupled to *forms of cultural practice*. The fundamental *hybridity* of computer game artifacts – conceived of as integrated systems for simultaneously managing and mediating *both* types of cultural units – derives then from the fact that games embody characteristics that tag them *both* as *material* and *immaterial* cultural artifacts, as discussed previously, and at the same time *also* require specialised forms of technological *mediation* to deliver their specific blend of cultural affordances in both these senses.

We shall denominate hybrid cultural units of this type as *mediated cultural artifacts*. These may be more precisely defined as cultural artifacts that depend for their existence, actualisation and fruition on specific forms of material support – generally highly specialised technological devices that may *also* offer live connections to global communication networks – in order to optimally afford the specific forms of cultural practice associated with their actualisation and fruition.

Figure 17.2 below is a conceptual and relational mapping seeking to distinguish, and show the intimately *embedded* nature of the dynamic relationships between tangible, intangible and mediated cultural artifacts. It is certainly true to say that "traditionally" mediated cultural artifacts such as books, films, videos, newspapers and television programs have, at least until quite recently, made use of mediation platforms that involve far less sophisticated interaction technologies and practices than those involved in playing computer games (Bolter & Grusin 1999).

However, the most fundamental human practices and processes involved in user/ reader/ player interactions with, and fruition of, any kind of mediated cultural

artifact will obviously have quite a lot in common, in particular practices that are already well established cultural habits or rituals, and of course too, at the level of individual player experience (Compagno & Coppock 2009a). Indeed, the very fact that such communalities do exist can occasionally be seen to creatively "subvert" or "transcend" some of the technology-specific design and usage limitations inherent in most of the elegant, but "never quite perfect" person-artifact[22] interfaces we encounter in everyday life.

This may also help us understand how a series of solely *text-based* online multiplayer games such as the now quite famous *Multi-User Dungeons*, or *MUD's*,[23] developed in the mid 1970s by Roy Trubshaw and Richard Bartle at the University of Essex in the UK, became so popular in their time. Their popularity was large among dedicated players, and it developed in spite of a complete lack of any form of graphical interface, over and above a terminal window that displayed short snippets of text describing a few aspects of the game possible world, and a flow of user-generated one line text messages that were the sole form of player interaction with the game interface, and with other players taking part in the game at the same time elsewhere in the world. In reflecting on what might possibly lie behind the perceived usefulness and pleasure of a MUD game for its players, Torill Elvira Mortensen (2003: 266–267) points to three main factors: (i) it is an arena for social interaction, (ii) it can be used for performances, rituals and rites, and (iii) it is a place where people can play. So all in all, to do the exactly same kind of things together with others which contribute to making our lives in the real world a bit more meaningful and pleasurable too. An added bonus with a MUD, she adds, is that it allows for the creation and continual reconfigurations of a potentially unlimited number of scenarios and arenas for play, with a global reach and access to a very wide range of playmates, some of whom will always be awake and ready to play at all hours of the day and night, in some time zone or other. The ultimate pleasure of computer games, she concludes, "is not to be found in reading about them, talking about them or watching them." It is "in the action: the doing and the playing. Games are interesting because they can be played, and that playability is the ultimate distinction of the game."

## 17.5 Interface Artifacts and Interaction Forms

Any aesthetic cultural artifact delivered to its reader/interpreter, interlocutor or audience by way of mediation by an oral, written or other visual language interface, always actualizes reader/interpreter experience and sense-making processes across different experiential modalities simultaneously. These activate a blend of different

[22] We could also have used the more commonly used term "man-machine interface" here, but the above choice of terms seems to fit our present context best.

[23] MUD website: http://www.british-legends.com/. Accessed 14 December 2010. See also Bartle (1990) for a historical overview.

aspects of phenomenal experience of its fictional possible world, some of which have to do with multimodal characteristics of the interface, and some of which have to do with which types of player interaction strategies these characteristics are able to afford. Material and design differences from one interface artifact to another may lead to quite different action potentials being brought into play by readers/interpreters as they engage with the specific types of fictional possible world these artifacts and their interfaces are able to afford and actualize.

Books, in this sense, are also a type of interface-based artefact, as access to the fictional, or other possible worlds contained therein is primarily by way of the printed text and perhaps images too. The pleasure of reading practices may have many habitual and ritualistic aspects. We take a book out of a bookshelf, weigh it in our hands, glance at the cover notes, turn the pages, look at the pictures, and perhaps also enjoy the feel of the material texture of its cover or pages. We might even make a few notes in the margin. The same goes for other media, the enjoyment of some of which is more social in character than others. We select a DVD from our collection, take it out of its plastic cover, and perhaps study the images or titles stamped on it. We turn on a computer or DVD player, insert the disk into a slot, and then we might use a mouse or a remote control device to stop, start, or replay the video sequences it contains. We put on our coat and go out to the cinema and sit on a seat in the company of a number of other people to watch a film. Afterwards we may go out for dinner with friends who saw it with us and discuss our interpretations of the narrative, or other more technical matters. We click on a mouse, press buttons on a play-station, manipulate a joystick, or wave a Wii controller in each hand, while standing on a force-sensitive plate in front of a digital TV monitor to play a computer game, or follow an aerobics session, perhaps joking as we do so with friends and family looking on, and even taking part too, and so on. . .

But of course, when all this has been said, computer games differ quite radically from written, printed or otherwise packaged aesthetic works. For the first, they are often more open in design and offer larger numbers of choices or pathways to navigate in the fictional game world. Secondly, they must always be actualized procedurally in the "here and now" of gameplay by way of our physical interactions with the game interface. Thirdly, these interactions depend in their turn on the algorithmic rule based mediation of the game world by the game-engine during our fruition of the game. Clearly, the fruition of other less technologically complex products like digital films, video-clips and music, also requires specific forms of technological mediation for us to sample and enjoy them. But computer games differ principally from other aesthetic works in that they are rather more demanding to "be with": players are continually required to engage actively with them in more intimate, embodied, rule-constrained ways as they co-construct their "inferential walks" in the "fictional woods"[24] created by their authors/designers/programmers.

[24] See Eco (1994b).

This general picture of things is further complicated, of course, by the fact that, as already mentioned, many games also offer possibilities for players to modify the fictional possible worlds they interact with, and in. As the experimental, socialising and pedagogical potential of computer game (and other) possible worlds is brought and more into focus, game-engine design (implicitly or explicitly; legitimately or illegitimately) has begun to facilitate modification and personalisation of player avatars and other in-game "proxies" for players such as spaceships and robots. Some allow complex reconfigurations, modifications and even in some cases development of game-internal navigation and other control functions. Still others allow players to reconfigure fundamental environmental aspects of the fictional possible world, and even to develop and share their own tools for doing so. The increasing introduction of these kinds of *openness options* implicitly and explicitly blends practices associated previously with the cultural roles and identities of author/designer/programmer, with those of reader/player/consumer (Bartle 2003; Coppock 2009c, d; Caruso et al. 2009).

This technologically mediated blending of cultural role and identity patterns is more and more common today as an ever wider range of open networked multimodal social networks such as *Facebook* and *Twitter* offer what once used to be thought of as "end-users" access to sophisticated, online authoring/production/distribution tools. The continuing integration of user-authored digital images, website interfaces, *YouTube*[25] video streams and so on into the structures of online virtual worlds such as *Second Life*[26] and *Twinity*[27] offer examples of *transmedia*[28] role- blending processes in practice. The emergence of new cultural spheres characterised by highly distributed forms of mediated user/consumer generated interaction, and the so-called "*Internet of Things*"[29] make very advanced forms of "cooperition"[30] at-a-distance increasingly feasible, and has led to the coining of semi-paradoxical hybrid terms such as "prosumer", "non-money economies", "nano-tools", "desktop factories" and so on (see Toffler 1984; Toffler and Toffler 2006: 151ff for further reflections on these points), as technology-driven forms of innovation and cultural change converge, intertwine with and extend the basic tenor, and range, of our "traditional" wittgensteinian "language games" and "forms of life".

[25] http://youtube.com. Accessed 10 June 2010.

[26] http://secondlife.com/. Accessed 10 June 2010.

[27] http://twinity.com. Accessed 10 June 2010.

[28] A definition of the notion of *transmedia navigation* as "the ability to follow the flow of stories and information across multiple modalities" is to be found in Jenkins (2006). http://www.projectnml.org/files/working/NMLWhitePaper.pdf. Accessed 14 June 2010.

[29] See for example the following websites: http://www.iot-a.eu/public and http://www.mckinsey-quarterly.com/The_Internet_of_Things_2538. Accessed 10 June 2010.

[30] "Cooperition" is a technical term used increasingly today in global business environments. It stands for a working agreement between companies or businesses, whereby a potential competitor becomes a strategic partner. See this article online for a documented example of this: http://www.pfmonthenet.net/featuresarchive/article.aspx?ArticleID=9094. Accessed 10 June 2010.

## 17.6 Narrativity in Terminal Texts

One last aspect of aspect of player interactions with the cultural artifacts that mediate access to computer game fictional possible worlds that is *not* so easily seen as shared by our experiences of those worlds we meet via the mediation of the "static", paper-based technologies of books or the dynamic cinema screen images created by hidden projectors and celluloid film strips rarely experienced by filmgoers, has been pointed out by Massimo Maietti (2004). This author makes an interesting point that for any *externally observed sequence of gameplay* on some given occasion by some player in some game environment – an event sequence Maietti refers to as a *terminal text* – this sequence will, if recorded for further review, constitute a unique *narrative text* that can be analysed semiotically in narrative, or other content terms, just like any other segment of video or cinematographic screenplay.

In the case of gameplay, however, each recorded sequence will inevitably differ in non-predictable ways from prior and subsequent performances by one and the same player, or by other players using the same game-engine, since the complex, split-second timed interaction patterns between player, game structure/environment and its explicit and implicit rule systems are unlikely to be 100% reproducible in all their "messy" detail from game to game. The degree of variance between individual players' "narrative programs" (Hébert 2006, 2007; Post 2009) from one gameplay session to another, and from one player to another across the same session, will increase in proportion to the complexity of the patterns of inferential decision forks, or *choice points* (Eco 1994b) offered to players by the game-engine generated fictional world in question. The degrees of variance from session to session will also be expected to increase proportionally with the number of players – be they human or simulated, such as AI opponents, or script-based avatars/robots and so on – taking part simultaneously in any given gameplay session.

This way of thinking about computer gameplay in terms of recordable process-event sequences opens up interesting possibilities for empirical research into player-game world interactions, gameplay strategies and experiences. There already exist large archived online collections of recordings of "speed runs" by players demonstrating strategic ways to move as quickly as possible from game start to game over in certain types of games.[31] They demonstrate how players actively develop and share strategies to "subvert", or "transcend" for *their* own ludic ends the normative rule systems proposed by game environments and their designers, and the types of roles and task assigned to players by these systems. A growing number of enthusiasts create and share "machinima"[32] productions (see Hancock and Ingram 2007), using internal recording and editing functions of

[31] Thanks to Michael Liebe at DIGAREC, Potsdam http://www.digarec.org/ for sharing this information, and providing examples of speed runs recorded in *World of Warcraft*.

[32] For some examples of recent machinima productions see http://www.machinima.com/ and http://www.strangecompany.org/. See also the following Machinima Archive online: http://www.archive.org/details/machinima

computer game-engines – those normally used by designers and programmers during the creation of games – to produce short video narratives set within game worlds that can be shared and exchanged via the Internet as autonomous aesthetic works. Some of these productions have little or nothing at all to do with the original mythical or ideological narrative frameworks associated with the game worlds they are recorded in and quite often, too, reflect a distanced critical, satirical, humoristic stance regarding these.

## 17.7 On Openness and Negotiation of Consequences

The most "open" fictional ludic worlds today are undoubtedly MMPOE/G's such as *Second Life*, *Active Worlds*,[33] *Twinity* and their peers.[34] These environments – within the technical and institutional limitations imposed by the current state of the art, as creatively interpreted and accommodated for by their designer-creators – facilitate and encourage users/players/stakeholders to personalise and develop their game avatars, and to design or purchase clothes, bodies, skins, behavioural scripts and so on. They may also, in varying degrees, depending on "local" design policies, take part together with other users elsewhere in the world in developing the basic topology, architecture, social structure and other cultural or environmental characteristics of the fictional world. They are able to communicate freely via Skype with one another about what they are doing while actually doing it, and discuss and evaluate what they have managed to achieve, how it functions, its strengths and weaknesses and so on, both during, and after, the event, in ways that are fairly similar to how they would have carried out the same kind of activities in real world environments.

All this, I think, strengthens our claim that the larger sphere of cultural practices involved in the design, production and fruition of computer games has as its focus of interest hybrid *mediated cultural artifacts* that are constituted as dynamic combinations of *material* and *immaterial cultural artifacts*. This allows us to attribute to these practices the same cultural status as similar practices associated with the design, production and fruition of other aesthetic open works in fields such as art, literature, cinema, video, theatre, television and so on. If we think about this larger cultural sphere not only in purely *economic* terms, but also in relation to other systems of cultural value, it is important to remember that at the end of the day, it is always the sum total of *symbolic and cultural capital* that will determine the overall

[33] http://www.activeworlds.com/

[34] Though massively multiuser online *environments* (MMOE's), Virtual Worlds, CVE's, MUVE's and so on (see http://www.virtualenvironments.info/) like *Active Worlds, Kaneva, Second Life, Sims Online, Whyville, Twinity* and their peers may contain in-world gameplay zones, functions and tools for play, their users are not expected to participate in game activities. Clients of massively multiplayer online role-playing *games* (MMORPG's) such as *World of Warcraft*, *Everquest, Entropia Universe* and their peers, on the other hand, are expected to do so.

value of these artifacts in a wider, more global scheme of things. It is also important to remember that symbolic and cultural capital can only be accumulated painstakingly over time through what are primarily *immaterial* practices: the rites, rituals and other habits, that embody the systems of ideals, norms and rules associated with each single quotidian detail of the complex processes of design, production, distribution, fruition and evaluation of these cultural artifacts, no matter what ontological status we decide to attribute to them. And when all comes to all, players, their communities and all the rest of us too, always seem to be most of all concerned by the essentially *ethical* issue of what it is that makes a really good game really good (Reynolds 2002; Consalvo 2009; Sicart 2009).

So, let us now return to the very beginning of our discussion, which was my endorsement of Jesper Juul's seemingly controversial reflections on computer games as "half real", and the philosophically engaging issue of how we most usefully may seek to understand his characterisation of games as "activities with negotiable consequences." This same issue, he claims too, has something to do with describing the relationship between "game activity and the rest of the world". In this connection, some other important issues that that need to be taken into account are *game rules* (if there are any), *variable and quantifiable outcomes of games*, *player effort*, and the *emotional attachment of players to various types of outcomes of games*.

Now, it is of course, very difficult to speculate philosophically in an abstract objectivising way about such matters. If we really wish to develop more profound understandings of how negotiation of real world consequences of player interactions with game fictional worlds relates to their, and our, past, present and future practices in the real world, more empirical work on themes such as *player experience*[35] and *player biographies*[36] clearly needs to be carried out. Laboratory style observation techniques that record and analyse instances of player interactions with game possible worlds, though useful, are not sufficient. These methods must be combined with *anthropological* or *ethnographic* approaches in concert with virtual and real life player communities (Pearce and Artemesia 2009). If we are serious about plumbing the depths of player experience and its relation to experiences of the real world, we need to communicate far more with players in game playing situations about hypothetical scenarios they draw up for themselves – also together with others – regarding real, and possible, consequences *they* envision of their own and others' gameplay practices for their everyday lives in the real world. This will also have to do with their considerations of what real, or even

[35] See Leino et al. (2008) for some recent research on player experience. Note too, that both the 2011 (Athens) and 2012 (Madrid) editions of the Philosophy of Computer Games international conference series (http://gamephilosophy.org/) have been dedicated to *player identity* and *player experience*.

[36] See Juul (2010: 145–218) for examples of semi-structured methods for tapping and valorizing player and game designer experiences of, and their thoughts regarding, games and gaming, using individualized conversational interviews to document and collect "player stories" and "designer interviews".

imagined, others they encounter in gameplay situations might feel, think, say or to do in relation to possibly enacting and realizing these consequences. In communicating about the relationship between past, present and future possible world scenarios players will certainly some to touch upon issues that focus on both narrower – pertinent to their own personal or private experiential spheres, and broader – pertinent to themselves in relation to their future participation and role in a wider, global, network of social and cultural relations, and the different systems of aesthetic, ethical, political, economic and scientific rules and norms they will come to engage with there.

More systematic in-depth research into player experience will clearly teach us much more about games, players and ourselves, about their and our relationships with fictional possible worlds in general, and about the relationship between our experiences of such worlds and the real world. It might also make us think more about our experience of the relationship between *inherent possibility* and *emergent actuality* as we shuttle back and forth across that fascinating borderline zone where our experiences of fictional worlds blend continually with those of reality.

## 17.8 Epilogue. So: Are Computer Games Real or Not?

Here I have sought to argue that we can conceive of computer games as ontologically real since they embody aspects of three principal types of cultural units – *material, immaterial and mediated cultural artifacts*.

I have argued that blends of phenomenal experience we conjure up as we engage enactively in gameplay in game fictional worlds[37] are culturally inherited, commonplace kinds of experience that blend seamlessly into and link up with our experiences of other types of mediated cultural artifacts we interact with from day to day in similar, but nonetheless different, ways.

I have also argued that *all these* experiences of different configurations of material, immaterial and mediated cultural artifacts can be seen as representing different facets of our very rich, *culturally constructed*, everyday experience of the actual world, the real world, or "reality". Further, I argue that these experiences, whatever form they may take, and whatever effects they may have on our ways of "being in the world", and on our relationships with other creatures, human or otherwise, with whom we share it – are all, in this particular sense, real too.

So, the million-dollar question now of course is: "OK. If so, then so what?"

Well, for the first I believe it ought to be possible to learn much more about the real world and ourselves by focusing philosophically (and scientifically) on how

[37] Here I include games on mobile phones, iPads, Facebook and elsewhere, on desktop or portable computers, play-stations, massively multiplayer games online, virtual reality games, pervasive urban games, augmented or alternative reality games that use mobile GPS devices to navigate and gather information in real world environments during play (De Souza e Silva and Sutko 2009).

fictional worlds of computer games are experienced and appraised by players and others they encounter during play, and on what types of meaningful relationships players develop between these experiences and their experiences of interactions with other combinations of material, immaterial and mediated cultural artifacts we consider part of the real world as we know it.

For the second, I believe we can learn a lot more about computer game possible worlds themselves by focusing on other ways of describing and understanding our experiences of the real world, and our own, very intimate relationships with this world, of which computer games, and their fictional possible worlds are still only a *tiny, but also very real, part.*

## Bibliographic References


Baldry, Anthony. 2000. *Multimodality and multimediality in the distance learning age*. Campobasso: Palladino Editore.

Baldry, Anthony, and Paul J. Thibault. 2006. *Multimodal transcription and text analysis*. London/ New York: Equinox.

Bartle, Richard A. 1990. *Interactive multi-user computer games*. UK: MUSE Ltd, British Telecom plc. http://www.mud.co.uk/richard/imucg0.htm. Accessed 15 Dec 2009.

Bartle, Richard A. 2003. *Designing virtual worlds*. Indianapolis: New Riders.

Bartle, Richard A. 2008. When openness closes. The line between play and design. In *Conference Proceedings of the Philosophy of Computer Games 2008*, ed. Stephan Günzel, Michael Liebe, Dieter Mersch, and Sebastian Möring, 44–54. Potsdam: Potsdam University Press.

Bogost, Ian. 2007. *Persuasive games. The expressive power of videogames*. Cambridge, MA/ London: MIT Press.

Bogost, Ian. 2008. *Unit operations. An approach to videogame criticism*. Cambridge, MA/ London: MIT Press.

Bolter, Jay David, and Richard Grusin. 1999. *Remediation: Understanding new media*. Cambridge, MA/ London: MIT Press.

Bunge, Mario. 1985. *Treatise on basic philosophy*. Boston/Dordrecht: Reidel.

Caruso, Giovanni, Alessandro Cavaleri, and Mauro Salvador. 2009. The dilated fruition. Videogiocatori e spettatori cinematografici. In *Filming the game/playing the film. L'immagine videoludica: narrazione e crossmedialità. Bianco e Nero 564*, ed. Patrick J. Coppock, Federico Giordano, and Marcella Rosi, 58–63. Carrocci: Rome.

Compagno, Dario, and Patrick J. Coppock. 2009a. World of warcraft as collector's paradise. In *World of warcraft and philosophy*, ed. Luke Cuddy, and John Nordlinger, 79–89. Chicago La Salle (Illinois): Open Court Publishing.

Compagno, Dario, and Patrick J. Coppock. 2009b. Introduction. In *Computer games, between text and practice*, ed. Dario Compagno, and Patrick J. Coppock, 5–11. Special number 5 of *E/C*. Palermo: Associazione Italiana di Studi Semiotici. PDF available online at: http://www.ec-aiss.it/monografici/5_computer_games/0_introduction.pdf. Accessed 10 Dec 2009.

Consalvo, Mia. 2009. *Cheating: Gaining advantage in videogames*. Cambridge, MA/ London: MIT Press.

Coppock, Patrick John. 2009a. Developing enactive political gameplay in transworld, transmedia genius loci. *E/C*. Palermo: Associazione Italiana di Studi Semiotici. PDF available online at: http://www.ec-aiss.it/pdf_contributi/coppock_29_03_10.pdf. Accessed 15 May 2010.

Coppock, Patrick John. 2009b. Conceptualisations and attributions of agency to co- and non co-present forms of otherness in actual, fictional, ludic and simulated possible worlds. *Lexia* 2/3: 317–340.

Coppock, Patrick John. 2009c. Here, there and everywhere: Glocalising identity in transworld transmedia genius loci. *MedieKultur: Journal of Media and Culture Research* 47: 7–28. PDF available online at: http://ojs.statsbiblioteket.dk/index.php/mediekultur/index. Accessed 15 Dec 2009.

Coppock, Patrick John. 2009d. Personal, local and global identity games. Modelling (re)mediated 'glocal' transworld identities in an ever more "open" world. *Chinese Semiotic Studies* 2: 285–301.

De Souza e Silva, Adriana, and Daniel M. Sutko (eds.). 2009. *Digital cityscapes (Merging digital and urban playspaces)*. New York/Washington DC/Baltimore/Bern/Frankfurt am Maine/ Berlin/Brussels/Vienna/Oxford: Peter Lang.

Eco, Umberto 1979. *A Theory of Semiotics*. Bloomington: Indiana University Press.

Eco, Umberto. 1984. *The role of the reader. Explorations in the semiotics of texts*. Bloomington/ Indianapolis: Indiana University Press.

Eco, Umberto. 1989. *The open work*. Cambridge, MA/ London: Harvard University Press.

Eco, Umberto. 1994a. *The limits of interpretation*. Bloomington/Indianapolis: Indiana University Press.

Eco, Umberto. 1994b. *Six walks in the fictional woods*. Cambridge, MA/ London: Harvard University Press.

Fischer-Lichte, Erika, Christian Horn, and Sandra Umathum (eds.). 2001. *Wahrnehmung und Medialität*. Tübingen/Basel: Francke.

Friedman, Ken. 2007. Behavioral artifacts: What is an artifact? Or who does it? *Artifact* 1(1): 7–11.

Friesen, Norm, and Theo Hug. 2009. The mediatic turn: Exploring consequences for media pedagogy. In *Mediatization: Concept, changes, consequences*, ed. Knut Lundby, 64–81. New York: Peter Lang. Downloadable PDF available online at: http://learningspaces.org/n/papers/Media_Pedagogy_&_Mediatic_Turn.pdf. Accessed 10 Feb 2010.

Galloway, Alexander R. 2006. *Gaming. Essays on algorithmic culture*. Minneapolis/London: University of Minnesota Press.

Hancock, Hugh, and Johnnie Ingram. 2007. *Machinima for dummies with DVD*. San Francisco/ Oxford: Wiley.

Hébert, Louis. 2006. The narrative program, *Signo*. Quebec: Rimouski. PDF available online at: http://www.signosemio.com. Accessed 10 Jan 2010.

Hébert, Louis. 2007. *Dispositifs pour l'analyse des textes et des images*. Limoges: Pulim.

Jenkins, Henry. 2006. *Confronting the challenges of participatory culture: Media education for the 21st century*. Cambridge, MA/ London: MIT Press.

Jenkins, Henry. 2008. *Convergence culture: Where old and new media intersect*. New York: NYU Press.

Juul, Jesper. 2005. *Half real. Video games between real rules and fictional worlds*. Cambridge, MA/ London: MIT Press.

Juul, Jesper. 2010. *A casual revolution. Reinventing video games and their players*. Cambridge, MA/ London: MIT Press.

Kücklich, Julian. 2008. Review: Jesper Juul, Half real. Video games between real rules and fictional worlds: Ian Bogost, Unit Operations. An approach to videogame criticism. *European Journal of Cultural Studies* 11: 245–248.

Leino, Olli, Hanna Wirman, and Amyris Fernandez (eds.). 2008. *Extending experiences: Structure, analysis and design of computer game player experience*. Rovaniemi: Lapland University Press.

Maietti, Massimo. 2004. *Semiotica dei videogiochi*. Milan: Unicopli.

Manovitch, Lev. 2002. *The language of new media*. Cambridge, MA/ London: MIT Press.

Mersch, Dieter (ed.). 2003. *Die Medien der Künste. Beiträge zur Theorie des Darstellens*. Munich: Wilhelm Fink.

Mersch, Dieter. 2006. *Medientheorien zur Einführung*. Hamburg: Junius.

Montfort, Nick, and Ian Bogost. 2009. *Racing the beam. The Atari Video-Computer System*. Cambridge, MA/ London: MIT Press.

Mortensen, Torill Elvira. 2003. Pleasures of the player: Flow and control in online games. Doctoral thesis, Department of Humanistic Informatics, University of Bergen, Faculty of Media and Information, Volda University College, Møre Research, Volda.

Pearce, C., and Artemesia. 2009. *Communities of play emergent cultures in multiplayer games and virtual worlds*. Cambridge, MA/ London: MIT Press.

Post, Jack. 2009. Bridging the Narratology-Ludology divide. The Tetris case. Eds. Dario Compagno, and Patrick J. Coppock, 31–26. PDF available online at http://www.ec-aiss.it/monografici/5_computer_games/3_post.pdf. Accessed 18 Oct 2011.

Reynolds, Ren. 2002. *Playing a good game: A philosophical approach to understanding the morality of games*, *IGDA.ORG*. PDF available online at http://archives.igda.org/articles/rreynolds_ethics.php. Accessed 22 May 2010.

Schneider, David M. 1968. *American kinship: A cultural account*. New York: Prentice-Hall.

Sicart, Miguel. 2009. *The ethics of computer games*. Cambridge, MA/ London: MIT Press.

Toffler, Alvin. 1984. *The third wave*. New York: Bantam Books.

Toffler, Alvin, and Heidi Toffler. 2006. *Revolutionary wealth*. New York: Knopf.

Wark, Mc.Kenzie. 2007. *Gamer theory*. Cambridge, MA/ London: Harvard University Press.

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