Play and Playability as Key Concepts in New Media Studies

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1. Introduction

What is new about the new media? This question has been asked by many researchers in the field of new media studies, but has not yet been answered in a satisfactory way. Concepts such as interactivity, hypertextuality and virtuality, to name just a few, have been used to try to distinguish between new and old media. But these concepts remain rooted in the logic of old media[1]. Attempts to account for the logic by which new media operate are still rare, and the few accounts that do account for this unique *modus operandi* tend to either condemn new media as gateways to a world in which reality cannot be differentiated from simulation, or laud them as agents of a social transformation that will bring about an electronic utopia.

But why is it so hard to account for the characteristics of new media? And what can be done to overcome this theoretical dilemma? The problem, of course, is the 'newness' of new media. Our contemporaneity with the object of study makes it hard to see the larger picture, to differentiate momentary trends from fundamental developments. And the only way to overcome this impasse is to regard new media in historical perspective, which seems to threaten their newness. After all, there were forms of non-electronic hypertext before the World Wide Web, there were forms of participatory entertainment before there were videogames, and there was multimedia before there were computers.

While this should serve as a caveat against the rhetoric of 'revolutionary' change that is so often found in the discourse of new media, this should not deter us from accounting for the changes in the media landscape. A historical perspective allows us not only to see how old new media really are, but also how new old media are. In the last decade, newspapers, television, film and telephony have changed radically. And despite the technological and social changes that accompanied these transformations, we are hard pressed for explanations. Mass media no longer reach the masses, and forms of personal communication can now be used to reach a large audience. The means of media production have become accessible to media consumers, and user-created content changes the nature of media production.

The media landscape is changing, but the models used to understand these media are still largely the same. We still speak of senders and receivers, of channels and feedback, producers and consumers. But this is hardly appropriate. We need to account for new modes of media production, distribution and consumption by constructing models that take the specificity of new media into account. But does it really make sense to build new models when everything around us is changing? Only

[1] As the concept of ' interactive media' implies the notion of ' passive consumption' in other media, the concept of hypertextuality implies a simplistic notion of textual closure, while the concept of virtuality is based on the assumption of an unmediated reality.

if we can make these models flexible enough to account for a media landscape that is in constant flux.

1.1. Game studies and new media

Where should we look for guidance in this enterprise? I suggest to look toward an emerging discipline that is concerned with one of the most volatile and dynamic media of the 21st century. Digital games studies, which are only beginning to be recognized as an independent discipline, could become the model for new media studies in years to come. This is due to the fact that this young discipline has developed theoretical concepts that do not discard traditional notions of play, while at the same time striving to adapt them to the challenges that arise out of the transposition of games into the digital medium.

Of course, this is not the only reason why we should take game studies as a role-model for new media studies. Another reason lies in the fact that digital games can be seen as paradigmatic of the new media and the insights gained from their study should shed some light on other media as well. Although it might seem presumptuous to regard such a ' frivolous' medium as the focal point of the new media landscape, there is strong evidence that this is indeed the case.

Studies of digital games usually start with an almost apologetic overview of the economic importance of digital games. And indeed, the numbers are rather impressive. It is a well-known fact, for example, that the games industry' s revenues are now larger than the box-office returns of the film industry. But the economic success of a medium cannot be the sole criterion in gauging its cultural importance. After all, cultural institutions that are held in high esteem, such as dramatic performances, are subsidized by public or private sponsors in many countries in order to ensure their survival. The games industry, on the other hand, receives hardly any public funding, and is held in rather low esteem by policy-makers.

One of the reasons for this lowly status might be the fact that games are traditionally regarded as belonging to the sphere of childhood rather than adult life. Someone who is merely ' playing around' is seen as irresponsible, immature, even foolish. The characteristics of play seem to contradict basic values in western societies such as sincerity, diligence and dedication. But there are indicators that suggest a change in this perception of play. In cultures that emphasize youth as a desirable state, which is to be prolonged and upheld by all means for as long as technically possible, playful behaviour might be one of the ways by which their members can present themselves as youthful.

The farther cultures move into post-industrialism, the more important play seems to become. While in industrial societies work and play are usually regarded as mutually exclusive concepts, their interrelations come to the fore in societies whose members have a rather large amount of leisure time and disposable income. As more emphasis is put on creative forms of labour, the boundaries between work and leisure time become blurred. Often, this is accompanied by a realization of play' s potential to teach new skills, which becomes ever more important in a cultural climate that stresses the importance of life-long learning and professional flexibility. The potential ramifications of these changing concepts of work and play are so large in scope, that it is hard to predict the speed and extent of societal change they will bring with them. But the signs of change are all around us.

Digital games are everywhere. New games and new platforms are no longer primarily aimed at a teenage audience, but at target groups in their twenties and thirties. And the age of gamers is steadily increasing. This in turn changes the coverage of games in mainstream media. The games industry is spending millions on advertising, and they are more likely to spend their money where games are taken seriously. Special interest publications are diversifying as well. Besides a wealth of magazines whose style is as juvenile as their audience, there are now a growing number of titles such as *Edge* that regard games as unique cultural objects worthy of critical analysis, and even occasional praise.

This agenda is very much in accord with the aims of digital games studies. And recent publications and conferences show that this field is steadily increasing in size and scope. In 2003, the Digital Games Research Association (DiGRA) held its inaugural conference in Utrecht, The Netherlands. Some 500 participants from all parts of the world gathered at this event to discuss perspectives on digital games ranging from film studies, media studies and anthropology to economics, sociology and psychology. While the study of games has always been part of academic research in some form, the formation of an independent discipline is a strong indicator in and of itself that the cultural status of games is changing.

1.2. The changing cultural status of games

Indeed, the cultural function of games seems to be in a process of transformation. In 2002, the Barbican Gallery in London hosted Game On, "the first major UK exhibition to explore the vibrant history of and culture of video games"[2]. While this might be conceived as a desperate attempt of established cultural institutions to cater to the tastes of a public that seems to have lost interest in traditional forms of art, it can also be regarded as an acknowledgement of the cultural importance of games in the late 20th and early 21st centuries.

And why should this influence not be recognized? From early on, films such as *Tron* (1982) and *War Games* (1983) bore witness to our culture' s fascination with videogames and their potential to transform our world[3]. While this is due in part to the fact that computer games are literally the most visible manifestation of computer technology in our everyday lives, digital games' importance goes beyond their role in heralding the so-called Digital Age. This has been taken into account by other art forms as well. An exhibition in Dortmund, Germany, recently showcased works by two dozen international artists that use games to create their unique vision of the world. Among them are classics such as Jodi.org' s*SOD*, a modification of the classic shooter game *Castle Wolfenstein*, in which the game-space has been transformed into an animated work of art that reminds many viewers of Kazimir Malevich' s suprematist paintings.

Even in literature games play a more important role than ever. The medium of literature has always been rather close to games in form and content; works such as Lewis Carroll' s*Through the Looking Glass* and Vladimir Nabokov' s*King, Queen, Knave* are strong evidence of their kindred spirits. While some would argue that literary playfulness has never been stronger than in classical post-modernism, popular literature that does no longer adhere to postmodernist paradigms might

[2] Game On exhibition website: http://www.gameonweb.co.uk/index.html, last accessed 19 Nov. 03.
[3] Since then, the cross-fertilizations between films and computer games have become much more numerous, as films such as *eXistenZ* (1999), *Lola rennt* (1998) and *Lara Croft: Tomb Raider* (2001) demonstrate. Games based on popular films (e.g. *Enter the Matrix* [2003]) are even more common.

demonstrate an even stronger fascination with games. A case in point is D. B. Weiss' *Lucky Wander Boy* (2003), a novel about a young man' s existential quest for an obscure Japanese arcade game.

All of this seems to indicate that games are no longer seen as mere ' child' s play' , but rather as important forms of expression that play a central role in our culture. In traditional and digital games alike, creators and designers are increasingly recognized as ' authors' with creative vision and a unique personal style. While such a view may be difficult to uphold in the face of the fact that the creation of games is usually a team effort, 'auteurism' is no longer just part of literary and cinematic culture, but of game culture as well.

The subject matter of games is also changing. Although the layers of meaning are often hard to reveal in digital games, it is obvious that these games do not exist in a cultural vacuum, and that even the ' escapism' of many games is significant from a semiotic point of view. Some even argue that it is time for games to deal with more serious matters. In an article about public memory institutions, Anna Reading asks the question whether games formats might be appropriate for Holocaust memorials[4]. Art Spiegelman' s*Maus* (1986) has demonstrated impressively that a medium that was traditionally seen as belonging exclusively to children' s culture had the potential to reinvent itself as a ' ninth art'[5].

1.3 Taking play seriously

All of this might be anecdotal evidence, however. Unfortunately, games lend themselves to all kinds of rhetoric play, and by using the word haphazardly it is easy to end up seeing everything as a game. A number of scholarly efforts that use the concepts of game and play to analyze cultural or natural processes get carried away by the sheer strength of the metaphor. As Stefan Matuschek points out: "The […] holism of play is created by the colloquial use of the word alone. Natural and technical-mechanical phenomena, as well as sports and arts become similar, if the word play is used to designate the up and down of waves as well as the movement of an axle in its bearing, to competitions as well as musical or dramatic performances."[6]

Therefore, I suggest a certain rigour in using the concepts of game and play for the analysis of new media. Just because something is not done in a spirit of seriousness, it is not automatically a game. Just because something is done inefficiently, or without regard to the outcome it is not necessarily a playful activity. Quite on the contrary: play is often very serious, and games are in many cases highly structured and goal-driven activities. However, this is not always recognized, even by academics that use these terms on a day-to-day basis. The post-modernist use of the word game has done a lot to decrease its analytical value. While this careless use might have served a purpose at the time of its inclusion in the critical vocabulary of theorists such as Jacques Derrida and Paul den Man, it is now difficult to speak of games in theoretical terms without submitting to the "postmodernist temptation"[7].

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[4] Anna Reading (2003): "Digital Interactivity in Public Memory Institutions: The Uses of New Technologies in Holocaust Museums." *Media, Culture & Society*, Vol. 25, No. 1 (January).

[5] Alain and Frédéric Le Diberder have suggested that computer games are the ' tenth art' in their 1993 book *Qui a peur des jeux vidéo?* Paris: La Découverte/Essais.

[6] Stefan Matuschek (1998): *Literarische Spieltheorie. Von Petrarca bis zu den Brüdern Schlegel.* Heidelberg: Universitätsverlag C. Winter, p.3 [freely translated].

[7] I borrow this term from Barry Atkins (2003) who introduced it in his book *More Than a Game. The Computer Game as Fictional Form.* Manchester: Manchester University Press, p. 19.

Other modes of speaking are possible, however. We can resist the postmodernist temptation by taking into account models that try to explain the inner workings of games without oversimplifying them. In the 20th century, there have been some attempts to analyze games, and fathom their importance within culture. Most prominently, Johan Huizinga's argued in his 1938 book *Homo Ludens*[8] that culture derives from play, although it is always kept separate from other cultural practices, thus ascribing a similar status to play as traditionally reserved for ritual and magic. In his critique of Huizinga, Roger Caillois introduced a system of categories to distinguish different forms of play[9]. Another milestone in the history of game studies is a collection of essays with the title *The Study of Games*[10], edited by Richard Avedon and Brian Sutton-Smith: "This is one of the rare theoretical books with 'games' in the title. Its uniqueness is further enhanced by the fact that games is used, not just as a vague metaphor for idle speculation, but in a literal sense: This is a book about games."[11]

It is this use of the word 'game' – in a literal, rather than a vague metaphorical sense – that I have elected as the guiding principle in my approach to play in new media. It is not sufficient, however, to transpose the models devised for the analysis of traditional games to this new field. That would be to revert to the practice of using old terminology for new phenomena, which I have decried above. The great merit of digital games studies lies in their relentless criticism of these models and terminologies, resulting in the refinement of these theoretical tools. Still, the concepts used in this young discipline are far from perfect. But from my point of view, this approach clearly shows the way for new media studies in its willingness to engage critically with their predecessors' theoretical vocabulary, and to adapt it to their object of study.

Nevertheless, my primary focus is on playability, rather than play. The term playability is used in popular games criticism to indicate the extent to which a certain game has the capability to provide enjoyment for a player over an extended period of time. Therefore, playability is closely related to replayability, i.e. a game's power to challenge the player to another go at the game after it has been 'solved'. For obvious reasons, narrative games usually rank much lower on this scale than non-narrative games – one can only be surprised by the ending(s) of *Deus Ex* (2000) so many times, but *Tetris* (1985) remains challenging even after hundreds of hours of gameplay.

But playability is also an ambiguous term. Whether or not a game will keep a player glued to the controls depends, after all, not only on the game but also on the player's skills and expectations. Most games try to adapt to the player by giving her the choice of different experience levels, or even by tracking the player's mistakes and adjusting the difficulty accordingly, but still there is no recipe for successfully 'hooking' a player on a game. In other words: whether a game is playable depends as much on the player's former playing experience, taste and willingness to adapt to a new play environment as on the game's controls, graphics, audio and genre.

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[8] Johan Huizinga (1938): *Homo Ludens. Versuch einer Bestimmung des Spielelements in der Kultur*. Hamburg: Rowohlt.
[9] Roger Caillois (1961): *Man, Play and Games*. New York: Free Press.
[10] *The Study of Games* (1971). Ed. Elliott M. Avedon and Brian Sutton-Smith.New York: John Wiley & Sons.
[11] Jesper Juul (2001): "The Repeatedly Lost Art of Studying Games." *Game Studies* Vol. 1, No. 1 (July). http://www.gamestudies.org/0101/juul-review/, last accessed 21 Nov 2003.

Therefore, playability is understood here as the product of a media technology' s or media text' s characteristics and its user' s media literacy. In other words: play is not just a mode of interaction the user is subjected to, but also an attitude that she brings to the medium in the form of notions and expectations about the technology or text. There is, of course, a high level of dependence between these two aspects of playability. They can be seen as forming a cybernetic feedback loop, in which the individual parts of the system exert control over each other.

As this might be misconstrued as a form of technological determinism, it should be emphasized that this model does not give precedence to either part; to playable technology or to desire for playability. It is rather a complex web of causation that gives rise to both phenomena. The social transformations outlined above are relevant to us all, whether we are media producers, distributors, or consumers. Indeed, the blurring of these roles that we can observe in phenomena such as file sharing and open source software can be seen as a cause as well as an effect of the changing concepts of play. In other words: we are inventing new modes of play as we interact with new media, and if they prove viable they become implemented into the technology itself. By using this technology, new modes of play are disseminated and undergo social change within and across different cultures.

This view of playability indicates that it is a concept that can be applied on different levels. The most basic level is a user' s interaction with a media text or technology. On a more abstract level, we can regard the interplay between media producers, distributors and consumers as a playful activity, or a game. Every player in this game can be seen to be following a certain strategy, which in some cases results in highly dynamic interaction between the individual players. These two levels correspond with one another, as the predominant mode of interaction on an individual level will express itself as a strategic move on the level of the media system, although this might not be intended by the individual users. This form of self-organizing, emergent behaviour is typical of social cybernetic systems, as has been recognized by Niklas Luhmann' s sociological systems theory[12].

Thus, a theory of playability in the new media should be capable of answering the following questions:

1. How do users interact with new media, and how do the practices of interaction shape media technology?
2. How do media texts and technologies foster new modes interaction, and how do they influence and shape media practices?
3. How can we conceptualize the cybernetic feedback loop between the participants of media systems both on an individual and a systemic level?

In order to point out ways that might lead to an answer to these questions, I will first provide a historical overview of previous attempts to incorporate play into media studies (chapter 2). On this foundation, I will then review both traditional and new models of play, attempt to assess their viability in the analysis of new media and outline a model of playability (chapter 3). The key concepts drawn from this review will then be compared critically with the terms used in new media theory, in order to gauge the validity of play theory in this area (chapter 4).

[12] Niklas Luhmann (1984): *Soziale Systeme: Grundriß einer allgemeinen Theorie*. Frankfurt: Suhrkamp.

2. Media studies and play

In order to provide this study with some historical context, it is indispensable to look at the history of the terminology of play within media studies themselves. This should provide us with an overview of approaches to media from the perspective of play, which can then be utilized in the model presented here. While the continuities between old and new media should guarantee for the lasting validity of these approaches, the discontinuities between them requires a critical investigation into the specificity of digital play in comparison to traditional play. This in turn demands a reassessment of the terms used in the play theories discussed here, in order to clarify whether or not these terms can still be used in the analysis of new media.

2.1. Communication theory and play

In his critique of Johan Huizinga's *Homo Ludens*, Jacques Ehrmann comes to the following conclusion: "Just as culture is, in the last analysis, communication, so is play ... and game. Thus, any theory of communication (or of information) implies a theory of play ... and a game theory"[13]. As communication theory underpins media theory, a play theory of the media must define play as a mode of communication in order to operationalize it for its own purposes. We will disregard the difference between play and game for the time being, and attempt to outline a communication theory that can be integrated into a model of play for the analysis of the media.

Inevitably, this leads us to Gregory Bateson's seminal article "A Theory of Play and Fantasy", first published in 1955. In this article, Bateson describes a visit to the Fleishhacker Zoo in San Francisco: "I saw two young monkeys *playing*, i.e., engaged in an interactive sequence of which the unit actions or signals were similar to but not the same as those of combat. It was evident, even to the human observer, that the sequence as a whole was not combat, and evident to the human observer that to the participant monkeys this was 'not combat.'[14]"

As Bateson observes, play introduces a meta-level into the monkey's communication. He even goes so far as to suggest that this is a precondition for animals to play with each other at all. The monkey's playful bites can be explicated as follows: "These actions in which we now engage do not denote what those actions *for which they stand* would denote"[15]. This leads Bateson to the following conclusion: "It appears from what is said above that play is a phenomenon in which the actions of 'play' are related to, or denote, other actions of 'not play.' [...] It [...] therefore, [...] the evolution of play may have been an important step in the evolution of communication."[16]

In fact, this must be seen as quite a revolutionary step in the evolution of communication. If a bite is no longer just a sign of aggression, but can be regarded as a symbolic token within a game, this opens up a whole range of new modes of communication, reaching all the way from lies and deceit to jokes and poetry. Of course, play doesn't transform a monkey into a poet, but it can be seen, as it were, as a first step on the evolutionary road from Cheetah to Shakespeare. Play liquefies

[13] Jacques Ehrmann (1968): "Homo Ludens Revisited." *Game, Play, Literature*, ed. Jacques Ehrmann. New Haven: Eastern Press, p. 56.
[14] Gregory Bateson (1983): "A Theory of Play and Fantasy." *Play, Games and Sports in Cultural Contexts*, ed. J. C. Harris und R. J. Park. Champaign, Illinois: Human Kinetics, p. 315 (italics his).
[15] Ibid. (Italics his)
[16] Ibid., p. 316.

the meaning of signs; it breaks up the fixed relation between signifier and signified, thus allowing signs to take on new meanings.

This is probably also the reason why the metaphor of play has gained such prevalence in the post-modern discourse. In Derrida's 'game of signification' the liquefication of meaning has been taken to such extremes that the signified vanishes behind the signifiers. Paradoxically, this seems to foreclose play, since play is dependent on the ambiguity between meaning and absence of meaning. In other words: if a sign can mean anything at all, there is nothing left to play with.

This paradox of signification has to be kept in mind in the following review of theories that try to apply models of play to media. It is hard, if not impossible, to account for playful communication using the static models of communication that have dominated communication theory for so long. When communication is regarded as play, terms such as 'sender' and 'receiver', 'signal' and 'feedback' tend to lose their meanings. In this respect, the challenge play poses to established models of communication is akin to the challenge of new media to communication and media studies.

2.2. Mass media and play

Early on in the history of media studies, in 1967, William Stephenson published a book with the title *The Play Theory of Mass Communication*. Programmatically, he begins his argument with the statement: "At its best mass communication allows people to become absorbed in *subjective play*."[17] However, Stephenson fails to make entirely clear in what sense he uses this term. And despite his assertion that the view of enjoyment as a source of persuasion and tyranny is "jaundiced," he is not actually concerned with pleasure but with "convergent selectivity". This selectivity is conceived as a rather broad concept that includes advertising, which raises the question whether Stephenson's concept of selectivity is ultimately restricted to the freedom of choice between different products.

Stephenson's concept of play is based on Huizinga's work, with all the problems that this implies: "Huizinga's viewpoint, and the one I follow, sees play in terms of culture; the study of play, in short, has become the concern of cultural anthropology."[18] While this statement is not problematic per se, the conclusions drawn from it are problematic in their assumption of a separate realm of play: "Playing is pretending, a stepping outside the world of duty and responsibility. […] It is not ordinary or real."[19] Stephenson follows Huizinga's definition further by pointing out that play is "voluntary", "disinterested" and "secluded".

Huizinga's controversial definition of play – that has been criticized by Caillois, Ehrmann and others as being at once too general and too specific – creates even more problems when used in the area of mass communication. Mass media are, after all, undeniably a part of everyday life, even if we concede that they have the potential to create their own reality. Neither is the consumption of media texts in all cases voluntary and disinterested – quite on the contrary. Stephenson acknowledges this problem: "[F]or theoretical purposes it is wise to distinguish that part of mass

[17] William Stephenson: *The Play Theory of Mass Communication*. Chicago and London: The University of Chicago Press, 1967, p.1.
[18] Ibid., p. 45.
[19] Ibid., p. 46.

communication dealing with work […] from that concerned with leisure-time pursuits"[20] – but fails to explicate how this is to be accomplished.

Unfortunately, Stephenson's theoretical bias becomes even stronger once he starts analyzing the actual process of media consumption. While he does mention radio and television, his main concern is with printed news media. He adopts Hyman's concept of the 'daily mix', i.e. the relatively constant "'mix' of a murder or two, a civic scandal, a dope or other addict," which "is much the same in every edition of the New York *Daily News*."[21] He then goes on to assert that "[t]hese ideas have direct connections with play theory. The daily 'mix' is repetitious, like a child's game played over and over with variations on a familiar theme."[22]

While repetition is certainly an important aspect of play, it is far from being a sufficient criterion for deciding whether or not something *is* play. And his argument is further weakened by sweeping claims such as: "We can take it for granted that people find mass communication, on the whole, enjoyable."[23] His analysis of pleasure in mass communication sets out from a critique of Schramm's psychological theory of pleasure, in which the reading of sex and crime stories is regarded as a vicarious pleasure, while the reading of serious news is seen as a 'delayed pleasure'. According to Stephenson, however, this is "nonsense"[24].

He reviews Freud's 'pleasure principle' in light of this critique and points out that the largely sub-conscious processes of the 'pleasure principle' and the 'reality principle' are complemented by the higher-level processes of reality-testing and fantasy-making.[25] Stephenson uses the term 'functional pleasure' to differentiate these terms and goes on to argue that 'communication pleasure' is one of these functional pleasures: "When two people meet and converse, they may say afterwards how much they enjoyed it. […] This is communication pleasure."[26]

According to Stephenson, communication pleasure leads to a 'self-enhancement' that seems to be akin to a form of catharsis. But ultimately, Stephenson fails to explain why news-reading is pleasurable even when one reads 'bad news'; and he does not arrive at a working model of play in mass communication. Although he comes to the conclusion that "[t]he communication situation is not one in which information is passed from a communication source to a receiver; it is one in which the individual *plays* with communication"[27], he fails to come up with convincing examples.

2.3. Media as tools and media as toys

Writing at the same time as Stephenson, Marshall McLuhan had the following to say about games: "Games, like institutions, are extensions of social man and of the body politic, as technologies are the extensions of the animal organism [...] As extensions of the popular response to the workday stress, games become faithful models of our culture. They incorporate both the action and the reaction of whole populations in a single dynamic image."[28]

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[20] Ibid., p. 48.
[21] Ibid., p. 49.
[22] Ibid.
[23] Ibid., p. 50.
[24] Ibid., p. 51.
[25] Ibid., pp. 52-55.
[26] Ibid., p. 57.
[27] Ibid., p. 151 (italics mine).
[28] Marshall McLuhan (1967): *Understanding Media. The Extensions of Man*. London: Routledge, p. 235.

In other words, McLuhan regards games as belonging to the sphere of media, but his understanding of the media is primarily in functional terms. As McLuhan speaks not solely of extensions of man' s senses but of "extensions of his physical body"[29], a hammer can be an ' extension of man' as well as television or the internet. McLuhan' s view of media as tools has long dominated the field of communication studies, but his technological determinism has also given rise to less functional views of the media. Thus, in 1977, Paul Levinson published his article "Toy, Mirror and Art", in which he presents the hypothesis that all media start out as toys, before they become representational media ("mirrors"), and finally media of artistic expression. In keeping with the strong teleological undertones of this model, Levinson speaks quite frankly of the "technological determination of technological culture."[30]

Levinson' s technological determinism weakens his argument, but nevertheless "Toy, Mirror and Art" is a thought-provoking essay about the emergence of new media and the factors that shape them. Take, for example, his assertion that the enjoyment of media in the toy stage "lies in a fascination with the process – not the product of the process, but the process itself."[31] This is remarkably close to the statements of new media theorists at the turn of the millennium such as Espen Aarseth' s claim that there is a "shift in method from a philological to an anthropological approach in which the object of study is a process (the changing text) rather than a project (the static text)"[32]

However, Levinson' s model is often at odds with the course of media history after the time of his writing. For example, in touching upon the subject of computer games, he insinuates that these applications are bound for extinction once computers advance beyond the toy stage by comparing it to "the amateur crystal set radio fad of the 1920s and the gawking at televisions in department store windows in the 1940s."[33] But that does not necessarily mean that either Levinson is wrong, or that computers have never progressed past the toy stage.

Levinson points at a third possibility by suggesting that the three stages might reiterate, causing media to regress to the toy stage after they have reached the art stage: "[T]he introduction of sound technology to the silent film in effect reduced the medium to the state of a toy – setting the whole technology back to stage one by creating a new medium as it were."[34] In other words: the medium of the computer might have iterated through the three stages several times already, going through the stages of toy, mirror and art repeatedly.

This does not explain, however, why the representational (i.e. ' mirror') qualities of the computer play such an important role in modern-day computer games – and why more and more people are ready to regard these games as an art form. Even if one regards computer games as a medium in and of itself, the three stages remain inextricably linked. In any case, Levinson' s argument draws attention to the fact that

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[29] Ibid., p. 47.
[30] Paul Levinson (1977): "Toy, Mirror and Art: The Metamorphosis of Technological Culture." *Et Cetera*. Reprinted in Paul Levinson: *Learning Cyberspace. Essays on the Evolution of Media and the New Education*. San Francisco: Anamnesis Press, 1995, p. 76.
[31] Ibid.
[32] Espen Aarseth (1994): "Non-Linearity and Literary Theory." *Hyper/Text/Theory*. Ed. George Landow. Baltimore: Johns Hopkins University Press.
[33] Levinson 1977, op. cit., p. 77.
[34] Ibid., p. 85.

the perceived playability of new media might fade as these media evolve, while other media may remain at the toy stage indefinitely, driven by perpetual innovation[35].

2.4. Pleasure and play

In his seminal book *Television Culture*, John Fiske dedicates one chapter to "Pleasure and Play". After discussing Laura Mulvey's psychoanalytical theory of pleasure at some length, he turns to Roland Barthes' distinction between *plaisir* and *jouissance*, which can be translated as 'cultural pleasure' vs. 'sensual pleasure'. As Fiske points out, "[f]or Barthes pleasure is opposed to ideological control, though *plaisir* less so than *jouissance*."[36] In Barthes' terminology, pleasure and play are closely related, since "the pleasure of creating the text out of a work involves playing with the text."[37]

Fiske explains that Barthes "exploits the full polysemy of 'play'", but it is his literal use of the term that is emphasized:

> [T]he reader plays a text as one plays a game: s/he voluntarily accepts the rules of the text in order to participate in the practice that those rules make possible and pleasurable; the practice is, of course, the production of meanings and identities. In a text, as in a game, the rules are there to construct a space within which freedom and control of self are possible. Games and texts construct ordered worlds within which the players/readers can experience the pleasures of both freedom and control: in particular, for our purposes, playing the text involves the freedom of making and controlling meanings.[38]

In regard to the playful production and control of meaning, Fiske offers the example of children's satirical re-enactment of television shows, and asserts that "children's play may be more productive than adult criticism."[39]

The central opposition of freedom and control – which seems to correspond closely with Roger Caillois' categories of *paidia* and *ludus* – can be translated into the opposition of rules and play. Fiske points out that "rules […] work in a similar way to ideology," and that they "emanate from a sociocentral force"[40], while "subordinated classes' are using play to question the rules that maintain their subordination."[41] Contrary to rules, "pleasure is not produced or experienced centrally: pleasure is de-centered or centrifugal."[42]

Fiske then turns to the pleasure of breaking the rules, paraphrasing Huizinga as saying that play creates order which is in the control of the players, "but the orderliness is never total, for it has built into it chanciness, the impossibility of

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[35] According to Kline et al., videogames can be seen as the prototypical commodity of "information capitalism", in which "the centre of economic gravity shifts from the production of goods to the production of innovation – that is, of new knowledge for the making of goods." Tessa Morris-Suzuki (1988): *Beyond Computopia: Information, Automation and Democracy in Japan.* London: Kegan Paul. Quoted in Stephen Kline, Nick Dyer-Witheford and Greig de Peuter (2003): *Digital Play. The Interaction of Technology, Culture, and Marketing.* Montreal and Kingston: McGill-Queen's University Press, p. 66.
[36] John Fiske (1987): "Pleasure and Play". *Television Culture*. London and New York: Methuen, p. 228.
[37] Ibid., p. 230.
[38] Ibid., pp. 230-231.
[39] Ibid., p. 231.
[40] Ibid., p. 233.
[41] Ibid.
[42] Ibid.

knowing what will happen."[43] Fiske proves not to be immune to Huizinga's rather imprecise concept of play, for it is at this point that the chapter grows vague and prone to the wordplay that is so often the result of the lure of ludic terminology. When Fiske claims that "*Ripley's Believe It or Not*, or *Arthur C. Clarke's Mysterious World* demonstrate how nature itself keeps breaking through the rules that have been devised to understand and master it,"[44] the reader cannot help but conclude that he has given in to the connotative temptation of the term 'play'.

Still, Fiske usefully points out that play oscillates between freedom and control and that the pleasure of breaking the rules lies in exposing their arbitrariness. In empowering play, the rules of society are replicated or inverted; the players' roles are chosen rather than imposed: "The pleasures of play derive directly from the players' ability to excert control over rules, roles and representations."[45] While Fiske is primarily concerned with the pleasures of television, this statement applies to other media as well. Therefore, Fiske's contribution to the use ofudic terminology in media studies might prove to be of lasting significance.

2.5 Play and the media experience

Roger Silverstone introduces the notion of play as a tool for the analysis of the media experience in his book *Why Study the Media?* As Stephenson and Fiske before him, he bases his concept of play on Huizinga's definition: "Play is a space in which meanings are constructed within a shared and structured place, a place ritually demarcated as being distinct from, and other than the ordinariness of everyday life"[46] While this seems slightly at odds with his assertion that play is "a core activity of everyday life,"[47] he goes on to explain that

> [p]lay is part of everyday life, just as it is separate from it. To step into a space and a time to play is to move across a threshold, to leave something behind – one kind of order – and to grasp a different reality and a rationality defined by its own rules and terms of trade and action. We play to leave the world. But it is not the world. And we return.[48]

In regard to the media, Silverstone points out that "we can see the media as being sites for play, both in their texts and in the responses that those texts engender."[49] But it becomes increasingly hard to follow his argumentation when he claims that the media "entirely depend upon that capacity […] to engage an audience within spaces and times that are distinguished […] from the otherwise relentless confusion of everyday life."[50]

This is, after all, a remarkably idyllic description of the media experience, especially coming from an author writing in the late 1990s. The relentless confusion of everyday life is, after all, exacerbated, if not created in the first place, by the media. And even if Silverstone's statement about thespatio-temporal separateness of the media is not taken literally, such a conceptualization does seem unable to account for the thoroughly media-permeated lifestyles of post-modernity.

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[43] Ibid., p. 234.
[44] Ibid., p. 235.
[45] Ibid., p. 236.
[46] Roger Silverstone (1999): "Play". *Why Study the Media?* London: Sage, p. 60.
[47] Ibid.
[48] Ibid.
[49] Ibid.
[50] Ibid., p. 61.

But we should not discard Silverstone's concept of play prematurely. In his recapitulation of Caillois' critique of *Homo Ludens*, Silverstone usefully acknowledges that "in our world of electronic media we can recognize the same playfulness [as in popular culture], the same marked spaces and times for amusement, though the boundaries between play and seriousness are more permeable and less distinct these days."[51]

However, in his description of the playfulness of electronic media, Silverstone, too, is carried away by the rich connotations of 'play':

> "We play on the net, downloading games, role-taking, role-making with other players, players not known to us except through the characteristics they take, as allies and opponents in electronic space. Play masters and mistresses in virtual dungeons. […] And we dance, some of us at least to the drum and bass of ecstatic rituals. Clubbing, playing, and, of course, performing too.[52]

This is unfortunate, because of all the authors reviewed in this chapter Silverstone has the most detailed and refined concept of play. Drawing on Caillois' typology of play he points out that "it is important to note [...] the tensions identified in play and games between 'contained freedom', 'secure creativity', 'active passivity', 'voluntary dependence'. There is nothing simple to be found either in the sociology or anthropology of play, or in its mediation."[53]

And while Silverstone tends to use play as a vague metaphor rather than an analytical category, he comes up with a set of interesting questions: "Are we talking engagement or escape? Do we play to win or, in a late capitalist society, are we born to lose? What value lies in the game? What prizes are vouchsafed to the victors?"[54] This set of questions highlights the importance of creating a terminology of play that allows us to speak about new media in terms of players and rules, winning and losing, motivations and outcomes, losses and gains. After all, "[w]e are all players now in games, some of which the media make"[55]

2.6. Summary

What are the lessons to be learned from the use of play theory in media studies? First of all, we can safely say that over the last four decades play has been employed almost universally in a metaphorical sense, rather than an actual model of the elements and functions of the media system. But there are also indications that this might be about to change. While authors such as William Stephenson, writing in the 1960s, used 'play' and 'entertainment' almost synonymously, later generations of authors betray a much keener sense of the specifics of play.

John Fiske and Roger Silverstone still tend to use the terminology of play in a vague metaphorical sense, but there are subtle signs that they are struggling towards a more accurate language. Fiske's use of the terms 'freedom' and 'control' is a case in point: the interplay between a game's rules and the margin of movement they allow their players, is recognized by many theorists as the basic dynamic underlying all forms of play. This is expressed in terms such as Caillois' binary opposition of *paidia* and *ludus*.

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[51] Ibid., p. 62.
[52] Ibid., p. 63.
[53] Ibid.
[54] Ibid., p. 65.
[55] Ibid., p. 66.

In a similar vein, Silverstone speaks of the media experience as something which is at once separate from reality and infused with reality. This seems to indicate that Huizinga' s problematic notion of the separateness of play might still have relevance for the study of new media, although it might have to be complemented by a concept of openness to account for the multiple transgressions of the boundary between play and reality. Furthermore, Silverstone points out that there is nothing simple in mediated play – just because a process is playful, it does not follow that the models used to describe it must be simple.

This draws attention to the fact that we must not see play as something belonging solely to the sphere of childhood. Play is not infantile, toys are not just children' s playthings. Regarding media as toys, such as Paul Levinson does, does not mean that they are inferior to other media that have progressed to other developmental stages. Doing so is, in effect, akin to regarding childhood as inferior to adulthood. But just as each of these stages in life have their own advantages and disadvantages, so do the individual stages of media development.

While the fact that there is media development cannot be denied, it might not necessarily be a linear progression, but rather a circular movement. And it might not inevitably have to go forward all the time: there might be periods of stagnation, or even retrogression in the development of media. Thus, the present toy stage of new media might last for quite some time, or it might be over sooner than we think. The toy stages of different media might even overlap, creating the illusion of continuity where there is rapid change. In any case, Levinson' s argument may serve as a warning against the sweeping statements and general claims that are so often made about new media.

3. Play and playability

In order to apply models of play to new media, there needs to be a clear concept of what play actually is. This question has already been the subject of an ongoing and heated debate, and its end is not yet in sight. However, by reviewing the contributions to this debate, and by putting them into historical context, it should be possible to outline a working model of play that can be used in the study of new media. To achieve this goal, we will first review the major contributions of theorists to the field of play and games, and attempt to identify the key concepts that an operative model of play and games should include. I will then briefly review the concept of play developed in post-modernist thinking, as this remains one of the key sources of play theory. The second part of the chapter will focus on the concept of playability, especially in the context of digital games. This will also necessitate an exploration of the related concepts of 'playfulness' and 'playability'.

3.1. Play

3.1.1. Homo Ludens

It is universally recognized that Johan Huizinga's book *Homo Ludens* (1938) is the first major contribution to the study of games. In this work, Huizinga claims that play is not a peripheral and inconsequential activity which is confined for the most part to the sphere of childhood, but rather a source of civilization, and therefore central to culture itself. At the same time, play is always kept separate from everyday life; it has, as it were, its own space and time. It is "a stepping out of 'real' life into a temporary sphere of activity with a disposition all of its own"[56] The separateness of play, which simultaneously establishes and confines its power, is expressed in the metaphor of the 'magic circle', "within which special rules obtain."[57]

Caillois has criticized Huizinga for "speaking of the spirit of play to the exclusion of games"[58], but Huizinga does give a rather succinct definition of games: according to him, a game is "a voluntary activity or occupation executed within certain fixed limits of time and place, according to rules freely accepted but absolutely binding, having its aim in itself and accompanied by a feeling of tension, joy, and the consciousness that it is different from ordinary life."[59]

This definition is problematic in its assumption of a separate space and time for games, of games' self-sufficiency and the power of their rules to be "absolutely binding". While some traditional games already fell short of this definition, digital games challenge these assumptions even more drastically. Mobile gaming platforms enable players to play games virtually anywhere and at almost any time. The rules of many online games are continually in transition, because they have to be constantly re-negotiated according to the needs of players. And while some traditional games were already far from being self-sufficient, but, at least partly, a means to an end, the

[56] Huizinga 1938, op. cit., quoted from the 1986 American edition (Boston: Beacon Press, p. 8) in Lister, Martin, Jon Dovey, Seth Giddings, Iain Grant and Kieran Kelly (2003): *New Media. A Critical Introduction*. London and New York: Routledge, p. 269

[57] Ibid.

[58] Warren Motte (1995): *Playtexts. Ludics in Contemporary Literature*. Lincoln & London: University of Nebraska Press, p. 6.

[59] Huizinga 1938, op. cit. The translation is taken from the 1949 English edition translated by R.F.C. Hull. London: Routledge & Kegan Paul.

in-game economies and social hierarchies of online role-playing games now actually produce goods with a value in the real world[60].

Huizinga's definition of *play*, however, is rather sparse by comparison. The only thing that we can be sure of, is that play is separate from everyday life, a characteristic that it shares with religious ritual, sport and drama. Huizinga exploits this similarity by pointing out that all of these cultural forms are characterized by play, but he does not seem to be interested in classifying different forms of play. In the light of this, Caillois' critique of Huizinga seems entirely justified: "Caillois [...] suggests that most of [Huizinga's] affirmations are highly questionable [...] He argues that Huizinga fails to classify and describe games."[61]

However, despite all the allegations against him, Huizinga has remained a prominent figure in the world of game studies. This can be attributed to the on-going fascination his idea of a separate realm of play exerts on the imagination of scholars of games. It may be a problematic concept, but it also seems to offer an explanation for the many inconsistencies, contradictions and outright paradoxes the phenomenon of play exhibits. Therefore, we must not discard Huizinga's model of play prematurely, but should rather attempt to use its resistance productively. One way to do so is to hypothesize play as an activity that is both separate from and part of our reality, at the same time open and closed. As we will see, it is this very ambiguity that makes the concept of play so useful in the study of new media.

3.1.1. Man, Play and Games

Caillois himself describes games by introducing the criteria of *agôn* (competition), *alea* (chance) *mimicry* (masquerade) und *ilinx* (vertigo). Furthermore, games are classified as either *ludus* or *paidia*. *Ludus* is understood as 'serious', rule-bound and goal-oriented play, while *paidia* is the realm of child's play: "*paidia* [is] characterized by fun, turbulence, free improvisation, and fantasy and *ludus* [by] constraint, arbitrary rules, effort, adroitness, ingenuity."[62] These categories are still used today in the analysis of games, although digital games tend to be hybrids of several or even all the different categories.

In comparison to Huizinga's, Caillois' concept of play is much broader, as he does not see rules as immutable and absolutely binding. His concept of a continuum between *ludus* and *paidia* allows for the notion that rules arise spontaneously out of free play (*paidia*), thus moving closer to *ludus*. But a development in the contrary direction is equally possible: a rule-bound game (*ludus*) might 'dissolve' into *paidia* spontaneously, if the players decide to no longer follow the rules and pursue other goals. Thus, the spatio-temporal separateness is less pronounced than in Huizinga's concept of play. The question whether a game is over, or where the playing field ends, can only be answered by the players themselves, who negotiate these conventions as they go along.

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[60] Avatars (i.e. the in-game representations of the players) and items from massively multi-player online role-playing games (MMORPGs) such as *EverQuest* are traded on eBay. According to Will Knight the male avatars from *EverQuest* "sold for an average of $346, while the generally lower-skilled female ones went for $281." Will Knight: "Sexual inequality exposed in virtual world." *NewScientist.com*, 24 June 2003. http://www.newscientist.com/news/news.jsp?id=ns99993864, last accessed 9 December 2003.

[61] Motte 1995, op. cit., p. 6.

[62] Ibid., p. 7.

Caillois brings to the fore the question of freedom and rules in regard to play. While Huizinga asserts that games are a "voluntary activity", the rules of which are "absolutely binding", Caillois' categories allow for a more differentiated model of the relationship between games and play. Entering into a game is necessarily a voluntary decision, and cannot be the subject to rules. Once the ' magic circle' is entered, however, one must submit to the rules of the game, albeit not unconditionally. The rules remain subject to re-negotiation by the players, although in many instances of a given game, this privilege will not be exercised by the players.

Although Caillois conceptualizes *agôn*, *alea*, *mimicry* and *ilinx* as separate categories, a game is never a pure manifestation of either one of these. In a competitive game (*agôn*), there is always, at least virtually, an element of the other three categories. The rules usually try to contain these elements, and in highly codified games like chess, even actions external to the game, such as rearranging the game-pieces, are described by the rules. Thus, the very force that upholds the spatio-temporal separateness of the game can be seen to lead to the transgression of its boundaries.

This is true for the categories of *paidia* and *ludus* as well: "[T]he game consists of the need to find or continue at once a response which is free within the limits set by the rules. This latitude of the player, this margin accorded to his action is essential to the game and partly explains the pleasure which it excites."[63]. In other words, free and rule-bound play are mutually dependent, and, paradoxically, the freedom of the player arises out of her submission to the rules. The same interdependence is found in interactive media such as hypertext, in which the perceived freedom of the reader is dependent on her submission to a regime of conventions that she might only partly be aware of. In any case, the ambiguous nature of rule-bound freedom must be added to the repertoire of a play theory of the new media.

3.1.1. The Study of Games

In *The Study of Games*, Elliott M. Avedon and Brian Sutton-Smith define games as "an exercise of voluntary control systems in which there is an opposition between forces, confined by a procedure and rules in order to produce a disequilibrial outcome," while play is defined as "an exercise of voluntary control systems."[64] Again, this is a very sparse definition of play, and a rather cryptic one at that. It remains unclear, for example, who or what the subject of play is: is it the player or play itself that exercises the "voluntary control systems"? In other words: does the player voluntarily exert control, or does she voluntarily submit to control?

These questions are not addressed by Avedon and Sutton-Smith themselves, but this does not necessarily diminish their contribution to a definition of play. Rather, the ambiguities of their definition can be used constructively in analyzing the nature of this phenomenon. In fact, the author' s formulation highlights one of the central weaknesses of other definitions of play, that is, their tendency to describe play from the player' s point of view. Huizinga' s criterion of spatio-temporal separateness, for example, only makes sense from the perspective of someone who is able to move, as it were, from one reality to another. From the perspective of play itself, however, this differentiation has no relevance.

[63] Caillois 1962, op. cit., p. 8.
[64] Avedon and Sutton-Smith 1971, op. cit., p.8.

If this is seen in conjunction with the fact that Avedon and Sutton-Smith speak not of control, but of control systems, a solution begins to emerge. Without explicitly acknowledging it, the authors are using the terminology of systems theory in describing play, which explains why the subject-position of their model remains empty. From the perspective of an external observer, the position of subject and object of play cannot be determined, which is why this question must remain unanswered. This does not mean it *cannot* be answered, but it cannot be answered from a position external to play itself.

This is, after all, the basic insight permeating systems theory – from Jakob von Uexküll' s biological systems theory[65] to the so-called ' radical constructivism' of Heinz von Förster and Ernst von Glasersfeld[66] and the sociological systems theory of Niklas Luhmann[67]: a system is created by differentiating it from its environment, and further differentiations are made within the system during the process of self-organization, or *autopoisesis*. But these differentiations will only make sense to a subject operating within the system itself, whereas an external observer is only capable of stating the plain fact that the system is different from its environment.

As an offspring of cybernetics, systems theory is also able to describe control structures within and across systems. As systems become ever more autonomous in the process of autopoiesis, they also tend to become less controllable from outside. In sociological systems theory, this is exemplified by social systems such as the law, which have developed enormous administrative apparatuses to the detriment of their actual benefit to society. Within systems themselves, control structures usually oscillate between different states of control, tending towards equilibrium.

As I have argued elsewhere[68], from a systemic point of view play can be conceptualized as a system that is based on the differentiation between play and non-play. Individual games can be regarded as sub-systems of play, and necessitate the differentiation of players and non-players. Play itself, however, does not necessarily require a subject, but should rather be conceptualized as a phenomenon that emerges spontaneously out of inter-systemic processes, the ' tension' or ' friction' between social or psychic systems. Who is the object and who is the subject of this system, i.e. who controls whom, cannot be decided from an external point of view, but only from within the system itself.

3.1.4. New perspectives on play

Game designers and theorists Salen and Zimmerman have contributed to the on-going discussion of play with their book book *Rules of Play*[69] which might well prove to be the *Homo Ludens* of the 21st century. In their keynote lecture at the inaugural DiGRA conference (Utrecht, The Netherlands, November 2003) they took as their starting point Huizinga' s concept of the ' magic circle' , which corresponds to his

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[65] J. v. Uexküll and G. Kriszat (1934): Streifzüge durch die Umwelten von Tieren und Menschen: Ein Bilderbuch unsichtbarer Welten. Berlin: J. Springer.
[66] See, e.g., E. v. Glasersfeld (1995): *Radical Constructivism*. London: Falmer Press; H. v. Förster (2002): *Understanding Understanding: Essays on Cybernetics and Cognition.* New York: Springer.
[67] Luhmann 1984, op. cit.
[68] Julian Kücklich (2002): *Computerspielphilologie. Prolegomena zu einer literaturwissenschaftlich begründeten Theorie narrativer Spiele in den elektronischen Medien*. MA thesis, pp. 165-177. Available online at: http://www.playability/txt/csp.zip.
[69] Eric Zimmerman and Katie Salen (2003a): *Rules of Play. Game Design Fundamentals.* Boston: MIT Press.

criterion of spatio-temporal separateness. But while Huizinga regarded the boundary between play and the real world as impermeable, Salen and Zimmerman are fascinated with the possibilities of its transgression. They assert that "[c]ertain games are designed to play with this line of demarcation, calling attention to the borders of the magic circle."[70]

The examples given include *Assassin*, a game played on college campuses in the United States, which is played 24 hours a day and the objective of which is to symbolically ' murder' a person who is also a player in the game. The boundary between play and reality is blurred by the players' obliviousness as to who is actually playing, and by the fact that the gameplay itself takes place within real-life situations. Games like these "create a heightened overlap between the artificial space of the game and the physical spaces and lifestyles of their players. […] [T]hey blur the distinction between players and non-players, sometimes involuntarily roping in unsuspecting participants."[71]

Building on the work by Avedon and Sutton-Smith, Salen and Zimmerman define a game as "a system in which players engage in an artificial conflict defined by rules that results in a quantifiable outcome."[72] While the criterion of seperateness is strikingly absent from their definition of games, it does inform their concept of play. This seems to resonate with the systemic concept of play outlined above, insofar as the more basic differentiation is the one between play and non-play, while the differentiation between play and game is of a higher order. In other words: "play is based on a first-order transgression and abides in a second-order complexity, whereas games are based on a second-order transgression and reside in a third-order complexity."[73]

Similarly, Jesper Juul acknowledges that the six criteria of his game definition "are not on the same level"[74], but belong, rather, to three different levels which Juul calls the level of "the game as a formal system," the level of "the player and the game", and the level of "the game and the rest of the world."[75] Arguably, his third level could be renamed ' play and non-play' , as this is the level on which the criterion of "negotiable consequences"[76] resides. Juul seems to acknowledge this by confining playful activities such as pen-and-paper role-playing, gambling and simulations to a realm between the ' hard core' of games and the field of practices that are not games, without explicitly calling them ' play'.[77]

Negotiations about a game' s rules and outcomes, however, cannot take place within the game itself, but are part of the sphere of play. Playing *with*, rather than *by* the rules is not part of the game, but of the playful behaviour that surrounds games. In

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[70] Eric Zimmerman and Katie Salen (2003b): "This is not a Game: Play in Cultural Environments." *Level Up. Digital Games Research Conference*. Ed. Marinka Copier and Joost Raessens. Utrecht: Faculty of Arts, Utrecht University, p. 16.
[71] Zimmerman and Salen 2003b, op. cit., p. 16.
[72] Zimmerman and Salen 2003a, op. cit., p. 96.
[73] Bo Kampmann Walther (2003): "Playing and Gaming. Reflections and Classifications." *Game Studies*, Vol. 3, Nr. 1.
[74] Jesper Juul (2003): "The Game, the Player, the World. Looking for a Heart of Gameness." *Level Up. Digital Games Research Conference*. Ed. Marinka Copier and Joost Raessens. Utrecht: Faculty of Arts, Utrecht University, p. 33.
[75] Ibid.
[76] Apart from "negotiable consequences," Juul lists the following features as indispensable for games: 1) rules, 2) variable, quantifiable outcome, 3) value assigned to possible outcomes, 4) player effort, and 5) attachment of players to outcome. Juul 2003, op. cit., p. 33.
[77] See the diagram in Juul 2003, op. cit., p. 39.

the same way, real-life consequences of games must be attributed to the way they are played, rather than the games themselves. In other words: play mediates between games and the real world.

3.2. The post-modern concept of play

Before we proceed any further, we should take a look at the post-modern concept of play, as introduced by Jacques Derrida, and popularized by Paul de Man in the Anglophone world. As the goal of this study lies in analyzing new media texts from the perspective of play, the deconstructivist practice of regarding texts as games must be taken into account. As Stefan Matuschek points out, Derrida and de Man use 'play' as a programmatic term, which is made obvious by the fact that it is found primarily in buzzword phrases such as "jeu de la signification" (Derrida) or "play of language" (de Man)[78].

Interestingly, the deconstructivist use of the term is quite close to Huizinga's original definition of play, as it presumes a closure of play in regard to its environment. The sole reason for regarding the process of signification within a given text as playful is the fact that, in deconstructivist theory, it does not refer to anything outside the text. As we have seen, however, a transgression of this boundary must be seen as the rule rather than the exception. The metaphorical use of the term 'play' in post-modernist thinking appears to be based on a notion of play that is no longer appropriate, if it has ever been appropriate in the first place.

But there have been attempts to "turn the challenge of deconstructivism into a positive challenge."[79] Wolfgang Iser's literary play theory is one such attempt, which is based on the assumption that play is a hermeneutic activity whose result is a gain in meaning: "Iser's model is constructive. Contrary to Derrida's 'jeu de la signification', his 'textual game' [Textspiel] aims at literature's potential for meaning, rather than its loss of meaning."[80]

The concept of Iser's *Textspiel* is far too complex to be described here in its entirety, but should nevertheless be outlined briefly in order to highlight Iser's contribution to the field of the study of play. The concept is introduced as part of his theory of fictionality which regards literary texts as the result of a semiotic operation between the realms of the fictive, the real and the imaginary. He regards play is the mode of mediation between these three realms, and differentiates different modes of 'feigning' (i.e. fiction-making) which work together to bring the work of fiction into being. Most importantly, the mode of *selection* is used to transfer elements of the author's real world into the world of the text, where they are subjected to a playful process of fictionalization: "Thus, the text plays the transformation of the world, which it has drawn into itself, and makes it possible to perceive this process as a gradual change [Phasenverlauf]."[81]

It remains to be seen to what extent this model can be applied to new media texts[82]. However, Iser's contribution seems highly relevant in the light of media forms that

[78] Matuschek 1998, op. cit., p. 17.
[79] Ibid.
[80] Ibid., p. 19.
[81] Wolfgang Iser(1991): *Das Fiktive und das Imaginäre. Perspektiven literarischer Anthropologie*. Frankfurt/Main: Suhrkamp, p.467 [freely translated].
[82] I have suggested to use Iser's model for a general theory of fictionality across different media in Julian Kücklich (2003): "The playability of texts vs. the readability of games. Towards a holistic theory

deliberately play with the boundary between fiction and reality. Like the games mentioned by Eric Zimmerman, new forms of entertainment such as 'reality TV', Hollywood films that are advertised through cross-platform games including personal communication media such as telephones and fax machines, and forms of social hacking such as fictitious corporate websites and fake advertisements transcend the boundary between fiction and reality with an ease that seems to be unique to new media. While this might be regarded as an apocalyptic scenario along the lines of Jean Baudrillard's concept of the simulacrum, it can also be regarded as a source of creative play with the expectations of largely media-savvy audiences.

Is the deconstructivist use of the term 'play' irretrievably lost, then, for the analysis of games? Not if one takes into account the other meaning of 'play' that is described as follows: "Play in the sense that Derrida uses it should also be understood as the 'give', or margin of movement, that exists within the system of logocentrism as in a well-worn machine. This is its own space of play that it would have confined to the margins but that Derrida exploits or finds active within the central workings of the system itself."[83] This concept of play as the margin of movement within a rigid structure is actually quite useful in the analysis of games and game-like phenomena.

In fact, Zimmerman's and Salen's approach is strikingly similar to this deconstructivist concept of play. Play could never transcend the 'magic circle' of the game if there was no margin of movement within the rigid structure of the rule set. In order not to throw out the baby with the bathwater, we should therefore retain this notion of play as a useful supplement to the model of play developed here. It might serve as the 'margin of movement' within the definition of play used here, thus safeguarding the flexibility of the concept, which is indispensable for its use in different media contexts.

3.3. Playability

The concepts of play outlined in the last section are the conceptual framework for a theory of playability. The concept of playability, however, is more specific than play, and should enable us to look at playful practices in the area of new media in a more detailed way. Therefore, the term 'playability' should be defined and dissected into its components in order to operationalize it for the analysis of new media. The playful attitude of media users, which has been conceptualized as 'playfulness', warrants an investigation of how this term corresponds to playability. Finally, playability is closely tied to 'replayability', which necessitates an analysis of the role of repetition in regard to play.

3.3.1. Components of playability

Järvinen et al. define playability as "a qualitative term for the uses of both design and evaluation. It refers, on the one hand, to the guidelines regarding how to implement the necessary elements (such as rules) to give birth to a desired sort of gameplay […]. On the other hand, 'playability' is developed here as a similar evaluation tool as 'usability'. Playability is, in this sense, a collection of criteria with which to evaluate a

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of fictionality." *Level Up. Digital Games Research Conference*. Ed. Marinka Copier and Joost Raessens. Utrecht: Faculty of Arts, Utrecht University.

[83] Peter Brunette and David Wills (1989): *Screen/Play. Derrida and Film Theory*. Princeton, NJ: Princeton University Press, p. 14.

product's gameplay or interaction."[84] While this is a very technical definition, it can be used as a starting point for the more general concept of playability to be developed here.

Interestingly, Järvinen et al. stress the possibilities of using the term 'playability' in the production of media, while I would put equal emphasis on consumption. Järvinen et al. describe playability as something that arises primarily out of specific design decisions during the production process, and an objective criterion by which the implementation of these decisions can be measured. I regard playability also as a function of the player's 'attitude' and the specific features of the game. However, these definitions do not necessarily contradict each other, and can be seen as different perspectives on the same basic model.

In their definition of playability, Järvinen et al. refer to 'usability' as a related concept. However, there is a tension between the terms 'usability' and 'playability' that is not accounted for in this definition. While increasing the usability of a media technology usually means making its functionality as accessible as possible to the user, playability often depends on withholding certain options from the player. It is quite crucial in many games that the player does not have access to the full range of options the game offers initially, but only after she has invested some time into the game. The playability of a game is actually increased by this strategy of deferral, because it challenges the player to spend an increased amount of time playing the game.

At the same time, it should not be made too hard for the player to increase her range of options. If advances such as unlocking new courses in a racing game or creating new buildings in a strategic simulation game such as *Age of Empires* (1998) are made too difficult for the player, she will easily become frustrated and stop playing the game altogether. Playability therefore depends on a careful balance between the abilities of the player and the challenges of the game. The importance of this balance is brought to the fore by the large range of existing strategies to uphold it – from the choice of different difficulty levels and tutorials to hint books, cheats and other 'illegal' manipulations to keep the game playable.

Furthermore, playability seems to depend to a certain extent on immersion. Just like the enjoyment of fiction is contingent upon the willing suspension of disbelief, games require the player to treat the characters and objects of the fictional world as if they were real. This does not mean that the players become unable to differentiate between the world of the game and the real world, just as the reader of a novel can usually distinguish between fact and fiction. But the player's willingness to immerse herself in the fictional world of the game, and accept the rules that govern this world, is a necessary precondition for playability. Therefore, any disturbance of this basic illusion is bound to decrease the playability of the game: "If the mediated nature of the game experience becomes apparent […], the playability of the system is deficient."[85]

Järvinen et al. differentiate different components of playability[86]. Ideally all of these work together in creating an immersive and adaptive gameplay experience. 'Functional playability' refers primarily to the controls of the game. A game that is

[84] Aki Järvinen, Satu Heliö and Frans Mäyrä (2002): *Communication and Community in Digital Entertainment Services.* Prestudy Research Report. Hypermedia Laboratory Net Series 2, p. 17. http://tampub.uta.fi/tup/951-44-5432-4.pdf, last accessed 26 November 2003.
[85] Kline 2003, op. cit., p.20.
[86] Järvinen et al. 2002, op. cit., p.28.

highly playable will usually have simple controls that are easy to master, and that are not subject to sudden change. However, there is a trade-off between functional playability and an aspect of 'structural playability' (i.e. rules and gameplay patterns): in some games it is desirable to give the player a large range of options in order to allow her to interact meaningfully with the game-world. This usually means making the controls more complicated and less intuitive, thus decreasing the functional playability.

Besides functional and structural playability, Järvinen et al. use the terms 'audiovisual' and 'social' playability. As far as audiovisual styles are concerned, it is immediately obvious that choices such as the perspective from which the game-world is perceived are important factors in the playability of a game. Representational problems are almost always translated into problems of playability, e.g. when the virtual camera angle makes certain tasks in the game harder than necessary, or the controls make trivial tasks such as opening a door into a challenge. Social playability can be implemented into the game itself (as in the case of multi-player games), but often arises spontaneously out of the interplay between players and observers.

3.3.2 Playfulness

How can we differentiate these aspects of playability from playfulness? Playfulness is a term primarily used in Human-computer interaction (HCI) research, where it "refers to an individual's tendency to interact spontaneously with a computer."[87] Playfulness can be regarded as an attitude that promotes playability. In a similar vein, Lister et al. note that home computer use "has continued to be characterised by a kind of exploratory play with computer or software systems."[88] Playfulness can be conceptualized as either a state of mind accessible to all human beings or an individual trait. In their study about the influence of playfulness on perceived ease of use of computers, Hackbarth et al. come to the conclusion that stress tends to reduce playfulness, while experience with computers increases playfulness in the interaction with computers.

While this seems to indicate that playful interaction with computers and other media technology is dependent on the user's expertise rather than the technology itself, this is contradicted by research on children's acquisition of media literacy. Keri Facer's study of the development of young people's computer use in the home, for example, stresses the importance of informal ways of gaining knowledge about the computer that are often framed as 'playing around'. Significantly, games play an important role in this process. One of Facers subjects, 11-year-old Simon, is quoted as saying: "I'd go into it and I'd just have a look at ... press on help, have a look at the controls when it says 'fire' and all that I would just read that and then go back to the game [...] Much easier and then you just get into it. It doesn't tell you what to do, I just get into it because I know what to do."[89]

The playfulness of this approach is reflected even in the language Simon uses in his account of how he approaches an unfamiliar game. The syntactic structure and the approach to the game are similar in their apparent incoherence, which is revealed as

[87] Gary Hackbarth, Varun Grover, Mun Y. Yi (2003): "Computer playfulness and anxiety: positive and negative mediators of the system experience effect on perceived ease of use." *Information & Management*, No. 40, p. 222.
[88] Lister et al., op. cit., p. 264.
[89] Keri Facer (2001): "What's the point of using computers? The development of young people's computer expertise in the home." *New Media & Society* Vol. 3, No. 2, p. 204-205.

a viable strategy when dealing with a complex situation consisting of multiple options whose consequences can only be gauged by constructing a heuristic model of the situation and experimenting with it. Thus the assumptions about the underlying rule system are tested, and consequently falsified or confirmed. The only expertise necessary is a general knowledge of how games work, while specific knowledge can even be a hindrance in adapting to a new set of rules.

This experimental way of gaining knowledge is still largely unacknowledged: "Although many children ' fiddled' with the computer environment, this was never conceptualized as a means of gaining theoretical knowledge."[90] This holds true not only for parents and guardians, but also for teachers, policy-makers and media producers. While the concept of playfulness seems to foster a view that shifts the responsibility of adapting to new media technologies to the users themselves, the concept of playability focuses on the interplay between the technology and the users taking place at the interface. Making interfaces more playable emerges as a way to increase media literacy and make new technologies more attractive to marginalized users.

3.3.3. Replayability

In a series of two articles on the game-developer website *Gamasutra.com*, game designer and theorist Ernest Adams explores the questions "What makes games replayable? And why are some replayable and some not?"[91] In the first of these articles, Adams focuses on narrative, pointing out that "the more important narrative is to the game, the more of a disincentive it is to play it again."[92] But Adams argues that it does not have to be that way: in effect, he suggests creating games that are not played for the plot, but rather for the way the story is told, for the telling rather than the tale.

In the second article, Adams turns to the question "how replayability is affected by the game mechanics themselves."[93] Crucially, he points out that "the single most important contributor to a game' s replayability is its playability in the first place."[94] But Adams also recognizes that playability is as much a quality of the player as it is of the game itself. Therefore he draws on a very basic typology of players, consisting of the core gamer and the casual gamer[95]. According to Adams, "[t]he core gamer doesn' t mind a game that plays the same way every time, as long as he' s got an entertaining challenge to overcome."[96]

"The casual gamer, on the other hand, plays not for the exhilaration of victory, but for the joy of playing the game." For casual gamers, therefore, replayability depends not so much on challenge, but on variety. Adams draws attention to the fact that variety can come from several sources, such as varying initial conditions, chance, non-deterministic opponents, size, and a choice of roles and strategies. And even very

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[90] Facer 2001, op. cit., p. 213
[91] Ernest Adams (2001a): "Replayability, Part One: Narrative." http://www.gamasutra.com/features/20010521/adams_pfv.htm, last accessed 2 December 2003.
[92] Ibid.
[93] Ernest Adams (2001b): "Replayability, Part Two: Game Mechanics." http://www.gamasutra.com/features/20010703/adams_pfv.htm, last accessed 2 December 2003.
[94] Ibid.
[95] This typology was introduced in an earlier article by Adams (2000): "Casual versus Core." http://www.gamasutra.com/features/20000801/adams_01.htm, last accessed 11 December 2003.
[96] Adams 2001b, op. cit.

simple games, such as the version of *Free Cell* that comes pre-installed with the Windows operating system, depend on a healthy mix of repetition and variety. While every one of the 32,767 deals of cards that *Free Cell* offers will have the same basic gameplay, the minimal variations between them account for its replayability.

Repetition is often equated with boredom, and only lately is it recognized as a source of pleasure in computer games. One of the first theorists to take the crucial role of repetition into account is Torben Grodal, who argues that "[a] central element in those playful activities that we call games is […] their repetitiveness, because somehow repetitive (reversible) activities are felt as less serious, less 'real' than […] irreversible processes."[97]

But Grodal emphasizes the importance of repetition at the expense of variation. While the basic gameplay patterns will usually remain the same over the whole duration of the game, they are often combined in different ways. When a game requires the player to acquire the necessary skills for a variety of actions such as shooting, jumping, ducking and climbing, there are multiple ways to combine these basic techniques, thus steadily increasing the difficulty of the game. Puzzles that require cognitive rather than motor skill and hand-eye coordination can also be varied in their complexity in order to ensure a smooth learning curve.

Repetition and variety are also present within individual game genres. Generic conventions such as the first-person view in many 3D-shooter games make it easier for the player to master the controls of the game, even if she has never played the game before. Some conventions even establish stability across genres, such as pausing the game by pressing the 'start' button in many PlayStation2 games. This seems to indicate that repetition might have a central role in establishing conventional rules, thus contributing to the codification of play into a game. Thus, repetition emerges as a key concept not only concerning playability itself, but also in regard to play.

3.4. Summary

I have started this chapter by reviewing the major contributions to a theory of play from 1938 to 2003. This overview began with a brief look at Johan Huizinga's *Homo Ludens*, and tried to assess what value his definition of play still has for us today. While Huizinga's notion of a separate space and time in which play takes place is increasingly contested by new forms of play, some of which arise in and around the new media, this concept emerged as a lasting contribution that cannot be discarded haphazardly. For theorists writing in the millennium, such as Juul, or Salen and Zimmerman, Huizinga's definition of play is still a point of orientation, and will continue to be for some time to come. In the study of new media, this concept of a virtual space that is at once separate and part of the world should prove a helpful theoretical tool.

The review of Roger Caillois' typology of play yielded another valuable concept: the notion of a continuum between free play (*paidia*) and rule-bound play (*ludus*). In retrospect, Caillois' contribution to the theory of play can be regarded as one of the first steps toward a notion of play and games that conceptualizes them as systems rather than activities or cultural practices. Although play might be instantiated as an

[97] Torben Grodal (2003): "Stories for Eye, Ear, and Muscles. Video Games, Media and Embodied Experiences." *The Video Game Theory Reader*. Ed. Mark J.P. Wolf and Bernhard Perron. New York and London: Routledge.

activity, with concrete subjects and objects, on a more abstract level it ispossible to conceptualize it primarily as a system, and Caillois' terminology can help us to describe the systemic interactions between game and play. Most importantly, however, Caillois' model allows us to think about play in terms of freedom and rules, and their mutual dependence. In regard to new media, this should enable us to discuss their alleged emancipatory qualities without losing sight of the constraints they bring with them.

Elliott M. Avedon and Brian Sutton-Smith contributed further to the view of play and games as systems that can be described in the terminology of cybernetic theory. Although Avedon and Sutton-Smith do not employ this vocabulary in their own work, their use of terms like 'system' and 'control' makes these theoretical concepts compatible. The dialectic of being in control and out of control that lies at the core of systems theory, is brought to the fore in play, and helps us understand how games interact with the real world through the mediation of play. Furthermore, the cautious formulation of Avedon's and Sutton-Smith's definition might serve as a model for our own definition of play, as it does not prescribe the roles of subject and object. This should prove useful in the study of new media, where the boundaries between subject and object are frequently blurred.

Consequently, a brief overview of new contributions to the theory of play revealed an on-going tendency towards thinking about games in systemic terms. Thus, in Zimmerman's andSalen's definition, games are positioned as autonomous systems within the realm of play, while play itself is positioned in the realm of culture. Transgressions occur primarily between games and play, and between play and culture, while games and culture do not seem to interact directly. But this conclusion from Zimmerman's and Salen's model does not necessarily mean that these transgressions are impossible. In fact, new media texts that blur the boundary between fact and fiction might be attempting to work around the mediating system of play and short-circuit the systems of games and reality.

In the second section of this chapter I reviewed the post-modern concept of play. While overall this was revealed as largely useless in the study of games and new media, as it remains too loosely defined, and tied to the deconstructivist agenda, Iser's concept of play as the basis of fiction-making emerged as a possible alternative to the post-modern terminology. Furthermore, the concept of play as the margin of movement within a rigid structure was identified as a useful element of an operational theory of play.

The final section focused on models of playability, outlining theoretical concepts that have been developed from the analysis of digital games. Järvinen et al.'s conceptualization of playability as a material quality of media texts was contrasted against my notion of playability as a result of the player's attitude and the game itself. This tension yielded important insights into the relationship between playability and other concepts frequently used in regard to new media, such as immersion, and the range and frequency of interaction. Järvinen et al.'s distinction of different components of playability, however, proved only partly useful, as functional and structural playability seem to pertain to issues of play itself, while audiovisual and social playability are functions of the interface or the players, respectively.

Playability was then contrasted with the notion of playfulness used in HCI research, which sheds light on the role of the user's attitude in creating playability, but tends to over-emphasize the expertise of the user in adapting to media technology. In comparison to the findings from technology domestication research, the model of

playfulness seemed to lack an explanation for the highly spontaneous and heuristic forms of play children engage in when faced with new media technology.

Finally, I reviewed theories of replayability and repetition, drawing both on the discourse of game design and the discourse of cognitive psychology. The former was exemplified by Ernest Adams' production-oriented approach to the matter, which outlined possibilities for designers to increase the replayability of their games. This revealed narrative elements as not necessarily detrimental to replayability, and drew attention to the important role of repetition and variation in gameplay. This was further elucidated by a synopsis of Torben Grodal' s perspective on play from the point of view of a cognitive psychologist. Repetition came into view as a key feature of games, and possibly other media, which demands more research in the future.

4. Playability and new media

In the previous chapter, a number of core characteristics of play were identified. Among these were, most notably, the ambiguity between openness and closure, the interdependency of freedom and rules, and the dialectic of being in control and out of control. While these can be regarded as the basic conditions out of which playability arises, some more specific factors were also identified in regard to this concept. Playability, was conceptualized as dependent on the players' attitude, their willingness to immerse themselves and to exploit the interactive possibilities of play. Replayability, on the other hand, was revealed to arise out of gameplay patterns of repetition and variety, in respect to the game mechanics themselves as well as to the narratives embedded in them.

We shall now attempt to explore how these general concepts of play as well as the more specific aspects of playability relate to the concepts devised to understand the specifics of new media by mapping them onto one another. The intention behind this is to translate the heterogeneous and eclectic *lingua franca* of new media into a language of new media which allows communication within and across disciplines without having to overcome the resistance that is created by contentious and politically charged terms such as 'interactivity' or 'hypertextuality'. As I hope to have shown in the previous chapter, the terminology of play has evolved significantly in its application to digital games. Thus, this set of theoretical tools should enable us to regard new media on their own terms.

4.1. Openness and closure

New media are often conceptualized in terms of simulation[98], virtuality[99] and immersion[100]. What is common to these terms is that they suggest an electronically created, separate space that can be inhabited mentally, if not bodily, by the users of new media. As Lister et al. point out, in the "literature about VR [virtual reality] there are two major but intertwined reference points: the immersive, interactive experiences provided by new forms of image and simulation technology, and the metaphorical 'places' and 'spaces' created by or within communications networks."[101] While the first of these meanings of the term 'virtual reality' refers to the "experience of immersion in an environment constructed with computer graphics and digital video,"[102] the second meaning could be summarized in the term 'tele-presence', i.e. the "space famously described as 'where you are when you're talking on the telephone'".[103]

Both meanings share the semantic component of 'being in two places at the same time'. However, the term 'virtual reality' itself, and related terms such as 'simulation' and 'immersion', emphasize the differences between old and new media, whereas a term like 'tele-presence' draws attention the continuity between them. Famously, McLuhan spoke of media as the 'extensions of man' that are, at the same time,

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[98] Jean Baudrillard (1981): *Simulacra et Simulations*. Paris: Editions Galilées.
[99] Howard Rheingold (1991): *Virtual Reality*. New York: Summit.
[100] Janet Murray (1997): *Hamlet on the Holodeck. The Future of Narrative in Cyberspace*. Cambridge: MIT Press.
[101] Lister et al. 2003, op. cit., p. 35.
[102] Ibid., bold in original deleted.
[103] Ibid. The quote is from *Mondo 2000. A User's Guide to the New Edge* (1993). Ed. Rudi Rucker, R. U. Sirius und Queen Mu. London: Thames and Hudson.

' prostheses[104]. We can think of virtual reality, then, as the perfection of the humankind' s prosthetic apparatus, as films such as *The Matrix* have impressively demonstrated.

However, the challenge of new media to established concepts of media theory such as McLuhan' s lies elsewhere: new media might have been discussed in terms of virtual reality all through the 1990s, but the applications have never left the university laboratories. What emerged instead, were ' mixed reality' or ' augmented reality' applications. These terms usually describe technologies that superimpose computer-generated images or other information over the user' s vision by projecting this data onto a specially designed visor, or some other transparent device such as a windshield. These technologies have obvious military and civilian applications, but I suggest using the terms in a much broader sense.

It should be made clear that this change from a homogenous to a heterogeneous reality must not be perceived as driven by technology. In many cases, it is the use, or even abuse, of new media technology that creates mixed realities. Mixed reality systems are understood here not in technological terms, but rather as practices that create cross-over between the real world and an imaginary or fictional world. In this sense, meta-fictional practices in literature can be said to be precursors of mixed reality, albeit with less tangible results.

Significantly, digital games are at the forefront of creating more heterogeneous realities. Location-based games, such as *Botfighters*, played by mobile phone users in Sweden, Finland and Ireland, determine the users' positions and match them against each other, leading to situations in which the users chase each other on the streets, or take detours in order to avoid the ' territory' of stronger players. The fictional economies of online role-playing games create real value, as characters and items are traded between players on eBay. The massively multi-player online role-playing game (MMORPG) *Star Wars Galaxies* has even created the equivalent of a financial market, with 2m Chilastra credits currently[105] selling for $24.95 on eBay.

The World Wide Web, of course, is the ultimate platform for mixed realities. In a space in which everything can be linked to everything else, the boundary between fiction and reality must be constantly renegotiated. While for some the only trustworthy news sources on the web are be those that have a firm leg in the real world, such as CNN, *The New York Times* or the BBC, others log on to the internet in order to find information that is marginalized in the mainstream news media. The internet seems to create separate realities for their users, a trend that seems to be promoted by ' customizable' websites that create unique content for each user.

While this phenomenon could be addressed in terms of a fragmentation of the public sphere[106], it might be more fruitful to regard it as a form of play. It has been pointed out that play creates a separate space which imposes its rules upon those within this realm. Clearly, this is true for media practices as well. But at the same time this space remains open to the world, which allows elements of the game world to pass into the space of play, and vice versa. As I have demonstrated, this cross-over, and the ontological doubt that it brings with it, is foregrounded in new media.

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[104] McLuhan 1967, op. cit.
[105] As of 12 December 2003.
[106] See: Julian Kücklich (2000): "Öffentlichkeit im Internet." http://www.medienobservationen.lmu.de/artikel/gesellschaft/kuecklich.html, last accessed 12 Dec. 2003.

Regarding media use as a 'stepping out of real life' into the 'magic circle' of play, allows us to see the continuity between old and new media, but we need the concept of playability to see what sets new media apart from old media. In what sense, then, are new media more playable than old media? In the previous section, immersion was stated as one of the factors that increase the playability of digital games. Immersion, however, is too unambiguous a term for the careful balance between involvement and detachment that play requires. Järvinen et al. point out that playability is dependent on the concealment of the mediated nature of games, but this is only half the truth: in order to play, the player must be aware of the fact that what she does is not real. Or, in Gregory Bateson's words, "the actions of 'play' are related to, or denote, other actions of 'not play.'"[107]

Another term that is closely related to immersion is 'immediacy', which might be a better choice, insofar as it simultaneously contains and denies the word 'media(tion)'. Jay David Bolter and Richard Grusin have established the term 'immediacy' and its counterpart 'hypermediacy' in their book *Remediation*. In their analysis of the adventure game *Myst*, they draw attention to the fact that the use of cinematic means does not create the illusion of being on Myst Island, but rather in a film *about* Myst Island. This leads to the conclusion that "[the player's] sense of immediacy comes only through an awareness of mediation."[108]

In the context of play, this paradoxical statement makes perfect sense. By putting their mediated nature under erasure, new media create immediacy, or even intimacy. Thus, they have permeated our lives thoroughly, often without even being noticed anymore. From the mobile phones in our pockets to the computers in our bedrooms, we are now enclosed in the mediasphere almost constantly. Paradoxically, perhaps, this enclosure is regarded as liberating, and making new media more accessible is one of the priorities on the political agendas of policy-makers.

The playability of new media, however, depends on a balance between openness and closure, and preserving this balance is one of the challenges media users are faced with. Media practices that transgress the 'magic circle' by transporting elements from within this space to the outside world must be seen as keeping the correspondence between these two realms intact. It is no wonder, then, that much of this traffic takes place in the arts, whether it is authors who pretend to sell items from their novels on the Web[109], graffiti artists adorning city streets and bridges with the imagery of *Space Invaders*[110], or game designers creating mixed reality games[111].

Crucially, however, these artworks depend on the user's play-ability, i.e. their willingness to take part in the circulation of meaning across ontological boundaries. This playfulness in respect to established order has an element of the carnivalesque, but like play itself, the carnival is no longer confined to temporal or spatial boundaries. This phenomenon cannot be accounted for without taking the larger context into account. As society becomes less restrictive and industrial models of

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[107] Bateson 1983, op. cit., p. 315.
[108] Jay D. Bolter and Richard Grusin (1999): *Remediation. Understanding New Media.* Cambridge and London: The MIT Press.
[109] Ben Marcus, author of *Notable American Women* (2002), maintains a website (http://www.benmarcus.com, last accessed 12 December 2003), on which he sells items such as an "Intercourse Helmet" or "Brazil Nuts Soaked in Water".
[110] http://www.space-invaders.com, last accessed 12 December 2003.
[111] A prime example is the advertising campaign for the film *A.I.: Artificial Intelligence*, a game which involved the players in an elaborate detective story using the Web as well as e-mail, fax machines and telephone messages (See: Zimmerman and Salen 2003a, op. cit., pp. 17-20).

work become obsolete, the relationships between freedom and rules and between work and leisure are subject to renegotiation[112]. This renegotiation is in and of itself a playful process, and it informs and is informed by new modes of interaction with the media.

4.2. Freedom and rules

Ever since Marshall McLuhan, technological determinists and other technophiles have hailed new media as an anti-hegemonial, anti-hierarchical force, as empowering technologies that liberate their users, and as vehicles of a new democracy of a more participatory nature. The emergence of the World Wide Web in the 1990s has given rise to a new generation of authors whose writing is suffused with this rhetoric, from George Landow's bold statement that the "history of information technology from writing to hypertext reveals an increasing democratization or dissemination of power"[113] to John Perry Barlow's "Declaration of the Independence of Cyberspace"[114].

This can be addressed in terms of openness and closure, i.e. in terms of granting access to information, of creating transparency in decision-making processes, and of opening the public sphere to marginalized voices. But as the 'liberation' of the media user plays such a central role in this discourse, it seems more appropriate to discuss it in terms of freedom and rules. The evangelists of new media tend to present 'cyberspace' as a space in which the rules of the physical world do not apply: "Your legal concepts of property, expression, identity, movement, and context do not apply to us. They are all based on matter, and there is no matter here."[115]

But freedom of rules is claimed to exist on other levels as well. Most prominently, perhaps, this view was expressed in early hypertext theory, in the writing of Landow[116] and Bolter[117], for example, who see hypertext as an 'embodiment' of post-modern or semiotic theory, respectively. What they fail to acknowledge, however, is the fact that the authors they quote – Derrida, Barthes, Eco and Iser, among others – developed their theories not in regard to hypertext, but in regard to written text on a page. The most common misunderstanding to arise out of this was the notion that hypertext was non-linear, while ordinary books had to be read from beginning to end.

Thus, Landow writes: "In a printed dictionary, we must move from page to page, looking up definitions, if we are to set in motion the play of signs. The play takes place in our heads, not in the book at all. […] A hypertext is always a play of signs."[118] In effect, Landow claims that ordinary written text is subject to rules that do not apply in hypertext. But, of course, there is no rule that forces the users of a book to move from page to page. In fact, many books offer rather more possibilities of 'random access' than the average hypertext. This is also acknowledged by Espen Aarseth in

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[112] See: J. Gershuny (2000): *Changing Times: Work and Leisure in Postindustrial Society.* London and Oxford: Oxford University Press.
[113] George P. Landow (1992): *Hypertext: The Convergence of Contemporary Critical Theory and Technology*. Baltimore and London: Johns Hopkins University Press.
[114] John Perry Barlow (1996): "The Declaration of the Independence of Cyberspace." http://www.eff.org/~barlow/Declaration-Final.html, last accessed 13 December 2003
[115] Ibid.
[116] Landow 1992, op. cit.
[117] Jay D. Bolter (1991): *Writing Space: The Computer, Hypertext, and the History of Writing*. Hillsdale, NJ: Lawrence Erlbaum Associates
[118] Ibid., quoted from http://www.rochester.edu/College/FS/Publications/BolterSigns.html, last accessed 13 December 2003.

subsuming hypertext under the category of ergodic text, i.e. a form of text that requires "non-trivial effort"[119] to be traversed.

In the view of authors such as Landow and Bolter, the absence of rules in hypertext directly feeds into the creation of a less regulated society. Hypertext is presented as a paradigmatic new media technology, and its ' interactivity' is highlighted as its most prominent feature. Now, that digital games have superseded hypertext as the embodiment of new media, interactivity is still part of the vocabulary of new media, without having gained in value as an analytical term. But, as Lister et al. point out, the "associate cluster of meanings [of interactivity] operates at two levels, one ideological the other instrumental."[120]

Crucially, Lister et al. draw attention to the fact that interactivity "stands for a more powerful sense of user engagement with media texts, a more independent relation to sources of knowledge, individualised media use, and greater user choice," which leads them to conclude that "[t]hese ideas about he value of ' interactivity' draw upon the popular discourse of neo-liberalism […] which treats the user as, above all, a consumer."[121] Thus, the rhetoric of ' liberation' is revealed as the rhetoric of liberalism, and the freedom of the user is reduced, in effect, to the freedom of choice between different products. The user might emerge as a more powerful figure in a ' deregulated' media marketplace, but this power is distributed as unequally as ever, and integrated into the discourse of capitalism.

This does not mean, however, that nothing has changed. The changes are just much more subtle than those predicted by the proponents of new media. Media have become more playable, and this playability is a result of the changing relationship between freedom and rules. The term ' deregulation' can in fact serve as shorthand for the changes in all areas of society over the last three decades. Without going into too much detail, it can be said that the rules of society in regard to work, family life and religious matters have become much more flexible since the 1970s. However, as theorists as Gilles Deleuze have pointed out, this has not necessarily led to more freedom for the individual[122].

New media, most prominently the World Wide Web, impressively demonstrate the implications that the change from Foucault' s disciplinary societies to societies of control hold in store for the individual. "In the new society […]," Deleuze writes, "the signature of the individual, her place in the masses, is no longer important. What is important [is] her access to information, her *password.*"[123] As access to information becomes the primary source of identity, we modulate our behaviour in order to ensure we are not being cut off from this source: the awareness that we inevitably leave traces when accessing information is enough to make us enforce strict rules upon ourselves when browsing the Web.

We do not require "a computer […] to track our every position and effect a universal modulation of our behaviour;"[124] we do it ourselves. In effect, it is this regime of self-discipline that allows us to describe new media in terms of play, or more specifically,

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[119] Espen Aarseth (1997): *Cybertext – Perspectives on Ergodic Literature*, Baltimore and London: The Johns Hopkins University Press, p.1.
[120] Lister et al., op. cit, p. 20.
[121] Ibid.
[122] Gilles Deleuze (1992): "Postscript on the Societies of Control". *October* 59. Available online: http://www.california.com/~rathbone/deleuze.htm, last accessed 13 December 2003.
[123] Ibid.
[124] Ibid.

in terms of freedom and rules. The solitary player is the archetype of the individual who upholds the rules simply for the sake of the pleasure she derives from submitting to them. Paradoxically, the freedom of the player lies in a submission to rules. New media's promise of liberation thus comes at the price of more restrictive rules, and the end user license agreements (EULAs), to which we agree daily with a mere click of a button, testify to this.

New media emerge at the intersection of new technology and new media practices. The latter, however, are not built into the former, but are a matter of negotiation between media producers and users. Until recently, only advanced users – 'hackers' and 'pirates', but also artists and pranksters – have engaged in these negotiations, while the majority of the users of new media have basked in their newly gained 'freedom'. But the emergence of file-sharing as a mass phenomenon may be the first tentative stirring of a broader discourse about the control of new media. In order to keep media playable, i.e. to counter-balance the rules with an element of freedom, this discourse of media control must be kept alive and taken beyond the confines of marginalized user groups. In order to do so, however, we must understand the intimate relationship between pleasure and control.

4.3. Pleasure and control

It has been pointed out before that the concept of play seems to have gained prominence over the last decade. P. David Marshal even sees a new play aesthetic on the rise in the globalized media: "In the last decade of the twentieth century, the key insight to permeate the various culture industries, but particularly film and television, is that play is not limited to childhood or sports. [...] The success of video and computer games in the past two decades is that they have been able to translate that pleasure of play, where there are both ritual, patterns and rules as well as possibilities, potentials and performance, into adult entertainment culture."[125]

Marshal attributes the pleasure of play to the simultaneous presence of ritual, patterns and rules on the one hand, and possibilities, potentials and performance on the other. This constitutes a model in which there is a rather rigid basic structure that leaves some room for free movement within this structure, similar to the one suggested by Zimmerman and Salen. However, it remains unclear why the interaction with such a construct should give pleasure to its users. Clearly, rules and regulations are present elsewhere, too, and in most cases the subjects of these regimes will either obey the rules or find out how to work around them.

Marshal studies play in a very general sense, i.e. as the mode of interaction between different groups of producers, distributors and consumers. In the conclusion of his argument, he attributes the tensions between these players to differing concepts of play that are at work in this game: "Play as defined by an industry is patterned for the proliferation of cultural commodities through their interlinkages. Play as defined by the audience or actor is precisely the moment when patterns are altered and shifted. The new intertextual commodity identifies the attempt by an industry to provide the rules of the game, while realising that the pleasure of the game is that the rules are made and remade, transformed and shifted by the players."[126]

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[125] P. David Marshal (2002): "The New Intertextual Commodity" *The New Media Book* (2002), ed. Dan Harries. London: BFI, p. 73.
[126] Ibid., p. 80.

Media industries are trying to exert control over the consumers of their goods by increasing the intertextual web between individual media. Games that operate across different media platforms such as *Pokémon* have impressively demonstrated the power inherent to this strategy and have created unheard-of synergies between videogames, television programmes and cinema as well as merchandising products, collectibles and toys. The *Pokémon* slogan "Gotta catch 'em all" sums up the strategy of media producers, distributors and marketers in a nutshell.

But as Marshal points out, there is still room for an alteration and shifting of the patterns established by the industry. This highlights the subversive component that play is often said to possess, and which can be traced on the individual level as well as on the level of the media system. On the individual level, the "subversive readings" of *Tomb Raider* that Barry Atkins[127] discusses are a case in point. On the systemic level, users that create their own intertextual connections can attempt to derail the industrial strategies of establishing hegemonial control over the web of intertextuality across the media. While this subversive strategy has always been a component of fan culture, the internet provides a platform for wider distribution and accelerated communication.

These strategies do not necessarily target hegemonial forces for ideological reasons, however, but for the pleasure inherent in it. Schott and Kambouri assert that "[a]s games are released [...] to the private sphere, the pleasures and practices involved in game play may become widely divergent from those [...] foreseen by designers and commentators in the game industry."[128] While this draws attention to the transgressive pleasures game players might experience, it simultaneously highlights the importance of social play in digital games. Schott and Kambouri studied children that use single-player games as the focal point for cooperative play, a pleasure unaccounted for by the producers of the game.

The social pleasures of playing digital games are also stressed by Järvinen et al.: "The enjoyment and pleasure rises from interacting not only with the product [...], but also with other users and the meanings and interpretations that each user/player invests into the product."[129] And they emphasize the importance of media practices that go beyond the standard mode of interaction with media texts and technologies: "Digital entertainment goes beyond pure socializing and incorporates plural means of experimental and experienceful [sic] usage, instead of one, narrowly defined functional purpose."[130]

While the social pleasures of play bring to the fore the rather complex control structure that can arise out of a situation in which several players with different levels of expertise interact with a game cooperatively, the multiplicity of media practices mentioned by Järvinen et al. draws attention to the fact that the hegemonial power of the media industries is far from total. The play aesthetic outlined by Marshal may give have given rise to new strategies of intertextual commodification of the private sphere, but at the same time the new media technologies have proved to be far less controllable once they enter the home.

On the level of individual consumption, issues of control have been discussed in terms of the ergodic text. According to Espen Aarseth, "[i]n ergodic literature,

[127] Atkins 2003, op. cit.
[128] Gareth Schott and Maria Kambouri (2003): "Material Plane. Interactivity in Social Play with Computer Games." *Convergence*, Vol. 9, No.3, p. 52
[129] Järvinen et al. 2002, op. cit., p. 15.
[130] Ibid., p. 16.

nontrivial effort is required to traverse the text."[131] Aarseth insists that this effort is 'extranoematic' , i.e. not only directed at understanding and interpreting the text, but at navigating it as well. While the task of navigating the text is indeed quite trivial in traditional texts, it becomes a question of control in new media texts such as computer games. In computer games, the player frequently has the experience of ' being stuck' , when she is not able to fulfil the conditions set by the game for the player to progress in the game. This dialectic of being in control and being out of control has been characterized in terms of "aporias" and "epiphanies"[132].

James Newman uses less dramatic terminology in his study of control structures in digital games. Newman suggests differentiating on-line and off-line states in gameplay, which correspond to states of being in control and out of control. These are regarded as the end points of a continuum encompassing a range of in-between states, such as cooperative play. The boundary between on-line and off-line states is often blurred, but elements such as non-interactive films that interrupt the game in order to advance the narrative (cut-scenes) can be regarded as absolute off-line states, while sequences of intense engagement are closer towards to an absolute on-line state[133].

In this context, Newman points out the importance of ' non-registered input' (NRI), i.e. movements the players make in order to dodge a bullet that is being fired at their virtual representation in the game-world and the like. According to Newman, this not only sheds a dubious light on the various theories of ' disembodiment' that circulate within the discourses of new media theory, but also draws attention to the complex relationship between player and game, which cannot be addressed in terms of a simple subject-object relationship. Newman claims that the pleasure of the game is not vicarious as in traditional media but participatory, and that non-registered inputs "augment, broaden and intensify an internalized language of control."[134]

All of this seems to support the initial hypothesis that control is indeed an important element of the pleasure of electronic games, and that we can speak of it in terms of "aesthetics of control"[135]. But can this concept be useful in the analysis of other media as well? Kilker' s concept of meta-control, which he uses to analyze DVD and internet domestication, seems to indicate that expanded control features that go beyond the agency given to the television audience are indeed an important factor in creating an enjoyable experience of new media texts. Kilker defines meta-control as "*the ability to reconfigure interactivity control options available to the technology' s user*s"[136].

While individual instances of meta-control (such as disabling the regional settings of a DVD player) might seem trivial, the politics behind this concept are highly crucial in the context of new media and play. Speaking about the practice of user operation (UOP) blocking in DVDs, which disables certain controls (e.g. ' stop' and ' fast-forward') in parts of the DVD' s content such as advertising and splash screens, Kilker

[131] Aarseth 1997, op. cit., p.1.
[132] Espen Aarseth (1999): "Aporia and Epiphany in *Doom* and *The Speaking Clock*: The Temporality of Ergodic Art." In: *Cyberspace Textuality. Computer Technology and Literary Theory*, ed. Marie-Laure Ryan. Bloomington and Indianapolis: Indiana University Press.
[133] James Newman (2002): "In search of the videogame player. The lives of Mario." *New Media & Society* Vol. 4, No. 3.
[134] Ibid.,.p. 415.
[135] Rune Klevjer (2001): "Computer Game Aesthetics and Media Studies." Paper presented at the 15th Nordic Conference on Media and Communication Research. Reykjavik, Iceland, 11-13 August 2001. http://uib.no/people/smkrk/docs/klevjerpaper_2001.htm, last accessed 28 November 2003.
[136] Julian Albert Kilker (2003): "Shaping convergence media. ' Meta-control' and the Domestication of DVD and Web Technologies." *Convergence*, Vol. 9, No. 3, p. 24 (italics his).

points out that the documentation about this practice on the internet "expands control options from solely producer-defined to user-influenced"[137]. While the users might not regain control over the technology, they at least able to make choices about which level of control they are comfortable with.

The media practices that have emerged with new media technology draw attention to the fact that users are not content with the level of control they are granted by the producers of this technology. The ' ripping' of copyright-controlled CDs, DVDs and games, the use of ' mod chips' in DVD players and game consoles to gain control over the hardware, and the use of filters on the World Wide Web to reduce the amount of advertising the users are subjected to, are ample evidence of the fact that the balance of control between users and producers is a highly contentious issue[138]. But the production of game modifications ('mods'), which is often supported by the games' producers, demonstrates that handing over control to the users must not necessarily lead to commercial failure, but can even increase the viability of a product in a highly volatile marketplace[139].

The pleasure of new media texts is therefore inextricably linked to issues of control on several levels. The user might engage into games voluntarily, as Huizinga pointed out, but once inside the game she is subject to the game' s rules, not only on the level of the individual media text, but on the systemic level as well. The struggle for control that takes place across the media landscape necessarily leaves its traces in the media texts themselves, and the model of play developed here enables us to see them more clearly. Thus, the concepts of control and meta-control emerge as highly relevant concepts in studying new media as a ludic phenomenon.

4.4. Summary

In this chapter, a number of core characteristics of play and playability were used in the description and analysis of new media usage both on the individual and the collective level. The results of this attempt to operationalize play terminology for a new media theory are encouraging, although the models of play that were used will have to be refined in order to strengthen the coherence between the different systemic levels and across different media. And while concepts of play might shed light on obscure terms such as immersion and interactivity, they do not yet allow us to speak in a common language of new media. But this, of course, is not to be expected from a tentative study such as the present one.

However, we are now able to outline several avenues for future work in this area. In regard to the question how new media can be conceptualized in terms of openness and closure, we have seen that there is considerable overlap between the concept of play as a place separate from everyday life and concepts of virtuality, immersion and simulation. The concept of play enables us to see how the closure that is common to these notions is dependent on an element of openness. In other words, virtuality is contingent on actuality, while immersion relies on mediation, and simulation hinges on dissimulation.

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[137] Ibid., p. 28.

[138] In this context, it is interesting that P. David Marshal notes that, "[m]etaphorically, all of the culture industries are engaged in a form of game coding." Marshal 2002, op. cit., p. 74.

[139] However, old paradigms prevail. Henry Jenkins points out that "[f]or many media producers, who still operate within the old logic of the commodity culture, fandom represents a potential loss of control over their intellectual property." Henry Jenkins (2002): "Interactive Audiences?" *The New Media Book*. Ed. Dan Harries. London: BFI.

The theoretical problems caused by these seemingly paradoxical structures are not solved by regarding them as play-structures. But the terminology of play allows us to speak about them not in exclusive, but rather in inclusive terms. Thus, the model of play could be extended to areas such as the status of the mind vs. the body in the information age. While this question has been discussed primarily in terms of ' either/or' , the concept of the ' magic circle' enables us to address it in terms of ' both/and' . In other words, the space created by new media is all around us, but we are never entirely inside it.

This also enables us to understand the interdependence of freedom and rules in regard to new media. New media submit their users to their rules, but the users also submit the media to rules of their own. At the dawn of the World Wide Web, the legitimists of new media hailed hypertext technology as a liberation from the linearity of the traditional written text. But this libertarian discourse has underpinned the far-reaching commercialization of the medium, and has led, paradoxically, to the enforcement of rules that curb the most basic rights of its users. The question of the playability of new media is thus revealed as a highly politicized question, a question of keeping their regulation in the public domain, rather than under corporate control.

The terminology of play thus allows us to speak about the rules of new media and the ' margin of movement' that they offer their users. On an individual level, more work needs to be done in regard to the practices of new media use in order to understand how new media technology is subjected to the rules of their users. Likewise, on the systemic level, the rhetoric of ' intellectual property' vs. ' piracy' must not deter future research from regarding the negotiations about the control over these technologies in terms of play. Taking Roger Silverstone' s statement that "we are all players now" seriously, means that we must identify the player' s roles and try to keep track of the changing rules.

Finally, control emerged as the most important concepts discussed here. In old media like literature and television the amount of control that the user had and the amount of control that the producer had were relatively stable. In new media, however, the amount of control is constantly shifting – both on the level of individual use, as exemplified by digital games, and on the economic level, as exemplified by the changing roles of producers and consumers. While the intertextual commodities of new media might grant the producers and distributors an unprecedented amount of control over usage patterns, modelling, as it were, the users' lifestyles, they also offer the users control on a higher level, aptly termed ' meta-control' .

As in the other two areas studied here, the simultaneous rise in control for producers and users is a challenge to traditional notions of thinking about new media. While users were once conceptualized as mere vessels that received any content the media would pour into them, these notions were challenged by concepts of ' active audiences' and new modes of spectatorshipNow that there is "a cultural shift taking place from spectators to players,"[140] we will have to rethink once again. The concept of control that emerges out of the study of new media from the perspective of play allows us to regard media usage in a much broader context, with a much greater variety of factors to be taken into account.

[140] Stephen Kline et al. 2003, op. cit., p.18.

5. The Ambiguity of Play

The present study of how concepts of play and playability can be employed in the study of new media must necessarily remain a rough draft for the time being. The discourse about new media is obviously much too vast and varied to be contained in the tentative terminology of play suggested here, and as I have pointed out in the previous chapter, much work remains to be done in this area. Therefore, I will also refrain from drawing a conclusion at this point, in order to avoid the impression of having reached a form of closure. Indeed, the openness of the theoretical model developed here must be seen as an advantage in respect to the task of contributing to a common language of new media.

Still, we must re-assess the questions asked at the outset of this study. In regard to the first question – *How do users interact with new media, and how do the practices of interaction shape media technology?* – the models of play outlined here appear to allow for a conceptualization that takes both components of this interaction into account. While this seems a rather trivial achievement, it is by no means to be taken for granted, as many theoretical concepts of media interaction still disregard how technology is shaped by its use, or, alternatively, how the specificity of media texts suggests certain uses.

Furthermore, regarding the interaction with new media as an inherently playful process enables us to conceptualize it in terms of openness and closure. While some players in the global media economy, e.g. the game console manufacturers, are trying to make their products as inaccessible as possible, employing proprietary standards and rigid control over the whole production process, others, most notably the producers of open-source software, take the contrary approach. The success of the Linux operating system and game modifications such as *Counterstrike* demonstrate that open standards are not necessarily detrimental to marketability.

The second question – *How do media texts and technologies foster new modes interaction, and how do they influence and shape media practices?* – is addressed by the model of playability. As the playability of a certain media technology or specific media texts is dependent on both the user and the text, the factors that give rise to new and possibly divergent modes of interaction are to be found both in the personal disposition of the user and the material characteristics of the text itself. Ideally, a playable product allows the user to exert a rather large amount of meta-control, thus giving her the possibility to change the parameters that influence the interaction process.

As we have seen, playability is coupled with replayability. Narrative-based media such as literature and film often have a rather low level of replayability, unless, that is, the telling is given precedence over the tale. New media texts still rely on narrative, but other factors, such as competition, chance and kinaesthesia, are becoming important parts of the experience. By using the terminology of play – such as Caillois' typology – we can describe and analyze these experiences, and attempt to fathom to what extent these experiences rely on repetition, rather than novelty.

At the same time, playability is dependent on the dialectic of being in control and out of control. While on a systemic level, media users and producers struggle to maximise their control over the technology, on the level of individual use, the loss of control is often experienced as enjoyable – if it alternates with the experience of being in control. The two states can thus be conceptualized as part of the same continuum, as Newman' s concept of on-line and off-line states in videogames

suggests. The level of control users experience in using new media technology, and the circumstances under which a loss of control can be experienced as enjoyable are another potential area for empirical research, based, for example, on textual analysis of interfaces and psychological assessment of user reactions.

With this in mind, we can turn to the third question – *How can we conceptualize the cybernetic feedback loop between the participants of media systems both on an individual and a systemic level?* It is this question that remains largely unanswered by the present study. While we were able to identify key concepts of play that give rise to specific instances of playability, and point out how processes on the systemic and the individual level can be described using this terminology, the picture remains fragmentary. As I have pointed out before, more research will be necessary in order to assess whether models of play can be used to homogenize the language of new media, and how this could be achieved.

After all, the field of new media is heterogeneous and the different media technologies and textual forms are differing widely in structure and appearance. However, this is another trait that new media share with play. Famously, Ludwig Wittgenstein used the example of games to explain his concept of ' family resemblances. In his *Philosophical Investigations*, he writes: "Consider for example, the proceedings we call ' games' . I mean board-games, card-games, ball-games, Olympic Games, and so on. […] I can think of no better expression to characterize these similarities than ' family resemblances' […]. And I shall say, ' Games form a family.' [141]

Is it preposterous to conclude from this that new media form a family, which is part of the extended family of media? I think not. We generally have a good concept of what a medium is, and what it does, but the definitions we come up with are never satisfactory. Regarding new media as forming a family has the advantage of grouping them together by certain traits, which are likely to occur, but do not have to occur. Play might have been a rather marginal trait in old media – although not invisible to perceptive observers – but it seems to be central in new media. However, if we regard new media as a ' family' , this means that not all new media must be playful. Thus, a single counter-example does not invalidate the theory set forth here.

In his visionary work *The Ambiguity of Play*, Brian Sutton-Smith confronts us with the fact that not only play itself but also play theory is varied and ambiguous. In his attempt to bring coherence to the field of play theory, Sutton-Smith studies the rhetorics that constitute play in its various forms, ranging from the rhetoric of progress in psychology and paedagogics to the rhetorics of frivolity in discourses of morality. But in his conclusion, he has to admit that his review of the rhetorics of play does nothing to unify the field, unless some "new postmodern rhetoric of tolerance toward the variabilities of each other group' s kind of play and play rhetorics"[142] was introduced.

And while he asserts that "the search for a definition [of play] at this time is a search only for metaphors,"[143] he confidently states: "The possibility then arises, that it is […] variability that is central to the function of play throughout all species."[144] The field of

[141] Ludwig Wittgenstein (1958): *Philosophical Investigations.* Oxford: Basil Blackwell, segment 66-67. Quoted from Juul 2003, op. cit., p. 30.
[142] Brian Sutton-Smith (1997): *The Ambiguity of Play*. Cambridge and London: Harvard University Press, p. 217.
[143] Ibid., p. 218.
[144] Ibid., p. 221.

new media is a field of great variability. As we have seen, new media are at the same time limiting and liberating, open and closed, controlling and controllable. This ambiguity might be addressed in other terms, but the terminology of play seems to offer a unique opportunity to speak of it in a language that acknowledges this ambiguity as an asset, rather than an annoyance.

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