

# Gameplay x playability: defining concepts, tracing differences

Vinícius Mello    Letícia Perani\*

Graduate Program in Communication Sciences, Rio de Janeiro State University (UERJ), Brazil

## Abstract

This work intends to articulate definitions on gameplay and playability, as there is no consensus in the academic field about these terms, which may be mistaken for one another or described as being just one. Through the description of several different proposals by game scholars, this article tries to articulate the main similarities and differences between some of the notions of gameplay and playability in order to delineate characteristics that might give us accounts to understand the meaning of analyzed terms. At last, the authors conclude that definitions and the scope of concepts of gameplay and playability rely on the starting point of the study as well as the goals of the researcher when carrying out researches in game design, game software or even about players' actions and their psychological matters.

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### Authors' contact:

viniciuz9@gmail.com

\* leticiaperani@yahoo.com.br

## 1. Game studies and gameplay

The *game studies*, a research field on digital ludic activities, had their beginning in the 1980s, following the rising interest for games in the United States, Europe, and Japan. However, when writing an editorial for the first journal on games<sup>1</sup>, Norwegian researcher Espen Aarseth established the year of 2001 as the "ground zero" of *game studies*, since that journal, as also the first international conference of this field, and the first undergraduate courses on electronic games were created in this period. Aarseth justified the creation of this new research field as saying:

Like architecture, which contains but cannot be reduced to art history, game studies should contain media studies, aesthetics, sociology etc. But it should exist as an independent academic structure, because it cannot be reduced to any of the above. [Aarseth, 2001]

As an interdisciplinary field that arose from connections between many research areas and has welcomed researchers from very different sciences<sup>2</sup>, *game studies* still require some well-defined methods, searching for its own topics, hypotheses and procedures. Besides that natural difficulty of establishing methods in a new field of studies, game researchers have another challenging question to work with: how to evaluate the action of *playing* games, which seems extremely subjective and depends of several variables. As an example, we shall highlight three articles which propose some methods for game studies: *Computer Game Criticism: A Method for Computer Game Analysis* [2002], by Lars Konzack; *Playing Research: Methodological approaches to game analysis* [2003], by Espen Aarseth; and *Game Analysis: Developing a Methodological Toolkit for the Qualitative Study of Games* [2006], by Mia Consalvo and Nathan Dutton.

In the first of these articles, Lars Konzack [2002] suggests the development of a method with seven different *layers* that a game should have: *hardware technology*; *program code, functionality* (hardware reactions to player input); *gameplay*; *semantic meaning*; *referentiality* (comparing games with other games and other media); and *socio-culture* (culture and interactions between players). As using these categories for game analysis, the author expects that "[...] we may get a better understanding of how they work – and hopefully this may even help making better computer game designs" [Konzack, 2002: 10].

But yet Espen Aarseth [2003] believes that Konzack's proposal is limited, despite being comprehensive. The Norwegian researcher suggests that game analysis should focus in three main areas: *gameplay* study (players' actions, strategies and motivations), *game-rules* (general rules for actions and the game environment), and *game-world* (fictional contents, game level design). These categories would be approached from several theories, according to research goals:

[...] by focusing on each of the three levels, we could identify three different types of games research perspectives:

<sup>1</sup> The *Game Studies* journal – <http://www.gamestudies.org>

<sup>2</sup> The *game studies* were created with the help of researchers from Psychology, Computer Sciences, Design, and Comparative Literature Studies [Perani, 2008].

- Gameplay: sociological, ethnological, psychological etc.
- Game-rules: Game Design, business, law, computer science/AI
- Game-world: Art, aesthetics, history, cultural/media studies, economics. [AARSETH, 2003: 4]

Meanwhile, Mia Consalvo and Nathan Dutton [2006] recognize Aarseth's and Konzack's efforts, but criticize the lack of concrete applications in those works, i.e. a well-defined method, with a comprehensive description of points for analysis and how to accomplish them. Thus Consalvo and Dutton advocate a method based in four analysis areas, representing the most relevant components of games, and also including static and dynamic aspects of playing experiences: *Object Inventory* – a inventory of objects and their in-game properties; *Interface Study* – information offered in game screens, as well as menus and additional screens; *Interaction Maps* – interaction with other players and/or NPCs that are offered to players; and *Gameplay Log* – emergent behaviors or situations occurred during the play experience. Hence the researchers emphasize:

[...] we believe that the method outlined above is broad enough to encompass analyses of games from different genres, while also allowing the researcher enough flexibility to account for the specifics of the game and genre under the microscope. Yet we fully expect that this methodology will be modified and, perhaps over time, will become more specialized for various genres in order to help understand their particular insights and elements. [CONSALVO; DUTTON, 2006]

As we are able to see, these three methods above outlined offer the same element of analysis: the *gameplay* category. Known as one of the main features of playing experiences [Juil, 2005; Björk & Holopainen, 2006; Assis, 2007], gameplay has been brought to the attention of game researchers and game designers since this category contains aspects related to immersion, engagement, and pleasure.

It is possible that *Controlling Gameplay* [1998], article published by John Banks in the Australian journal *M/C*, might be the first academic work that references this concept using the word *gameplay* – according to Banks, this term was already adopted<sup>3</sup> by players and game designers to define high-quality game experiences:

<sup>3</sup> One of the very first mentions about gameplay (under the spelling “game play”) may be found in *Atari 5200 Advanced Game System*, by David H. Ahl, published in *Creative Computing Video & Arcade Games*, in the Spring 1983 issue.

Gameplay is a term that constantly emerges in my discussions with both gamers and game designers. It is a quite ephemeral and at moments incoherent concept that is used to describe the experience of a player's visceral immersion in and interactive engagement with a particular game's environment. [BANKS, 1998]

Even if classified by John Banks as “ephemeral” and “confusing”, the term started gaining a better theoretical support in later works, as in Rebecca Farley [2000], who associates gameplay with the *classic game models*<sup>4</sup>, demonstrating connections between this concept and the ideas of Johan Huizinga, Hans-Georg Gadamer and Mihaly Csikszentmihalyi; the same path is followed by Marc Prensky [2002], who defines gameplay not only as the game experience and/or the game activity, but also as the group of strategies used by game designers for engaging players and keep them motivated. In *The Gameplay Gestalt, Narrative, and Interactive Storytelling* [2002], Craig A. Lindley brings the concept to narratological studies, as thinking of the tensions between gameplay and narrative as a powerful tool for creating interactive experiences. Other researchers affiliated to a ludological position, such as Jesper Juul, choose to emphasize the connection between gameplay and rules that may create the gaming experience:

I believe that gameplay is not a mirror of the rules of a game, but a consequence of the game rules and the dispositions of the game players. [JUUL, 2005: 88]

In *Games and Design Patterns* [2006], Staffan Björk and Jussi Holopainen assert that gameplay must be the focus of any game analysis, since this is a concept that incorporates functional aspects (in-game actions) and players' experiences (in-game reactions). In Portuguese language, Jesus de Paula Assis follows this pattern of development of the concept, highlighting some differences between the terms *gameplay* and *jogabilidade* (playability), words that may be commonly confused:

Sometimes, gameplay is translated as “jogabilidade” [playability], but this term is somewhat inappropriate as every game is playable, and what really matters is whether it is interesting or not. Nevertheless, playability accepts levels: high or low, which does fits with an abstract concept. Therefore would be more suitable to think of some “sets of tactics which make the game experience interesting (and funny, that is crucial)” [...] More than creating a flexible environment, the game must find the

<sup>4</sup> *Classic game model* is a term used by Jesper Juul [2005] to designate traditional studies on ludic activities, e.g. authors like Johan Huizinga and Roger Callois.

perfect balance between its goals and the player's interactions<sup>5</sup>. [ASSIS, 2007: 19]

Arsenault and Perron [2009] build a concept of play based on their idea of gameplay, thinking of this term as a junction between two different entities: game and player. The authors emphasize that the concept of gameplay cannot be defined using only the notion of *fun*. Gameplay would be understood in range of possible actions and reactions generated by both the player and the game. Another interesting contribution by Arsenault and Perron is the idea that game processes begin before we turn on the game device, since there are some external elements as game reviews or promotional items that may be a part of the game fruition process.

Miguel Sicart [2008] defines gameplay through *game mechanics*, since it would be composed by methods invoked by agents (human or computational) to interact with the game world, e.g. the player's own actions to perform tasks of the game, or actions of the Artificial Intelligence of the game interacting with itself. Sicart also believes that the concepts of rules and game mechanics may be confused with each other when studying games; game mechanics would regard players' interaction with the game state, while rules regard the possibility of that desired interaction to take place in-game. In his own words, "rules are normative, while mechanics are performative" [Sicart, 2008].

Writing in Portuguese language, Hélia Vannucchi and Gilberto Prado [2009] are also concerned with discussing a variety of definitions for gameplay, concluding that this term may come from "[...] interactions of the player with the environment, through the manipulation of rules and game mechanics, and through the creation of strategies and tactics that make the game experience interesting and fun"<sup>6</sup> [Vannucchi & Prado, 2009: 9].

Hence the concept of *gameplay* might be confused with other terms that are being developed in the *game studies* field, as the notion of *playability* – so how we will define exactly what is a good game experience, one that attracts and keeps the player entertained and focused on the goals proposed by

<sup>5</sup> Translation of: "Gameplay é às vezes traduzido por 'jogabilidade', mas o termo é impróprio, pois todo jogo é jogável e o que interessa é que seja interessante. Além disso, 'jogabilidade' admite graus: alta ou baixa, o que não combina com um conceito abstrato. Por isso, seria mais proveitoso falar em "conjunto de táticas que tornam interessante (e divertida, isso é fundamental) a experiência de jogar" [...] Mais do que criar um ambiente flexível, o jogo deve achar a adequação perfeita entre seus objetivos e a forma como o jogador interage".

<sup>6</sup> Translation of: "[...] interações do jogador com o ambiente, a partir da manipulação das regras e mecânicas do jogo, pela criação de estratégias e táticas que tornam interessante e divertida a experiência de jogar".

designers? What are the differences between gameplay and playability?

## 2. Definitions of Playability

The word *playability* has been used since the 1980s in journalistic reviews of games, as in the review of the computer game *Hacker* [Activision, 1986], by Todd Heimarck:

The author of *Hacker*, in the interests of playability, has inserted some high-resolution graphics-unlike anything you'd see on a true bulletin board system or information service. However, the graphics do add a lot to the game. [HEIMARCK, 1986]

The use of that word is also found in technical books as *Atari Graphics & Arcade Game Design* [1984], by Jeffrey Stanton and Dan Pinal, one of the first works that allude to playability in a game design discussion, or in Steve Smith's *PC Pilot: The Complete Guide to Computer Aviation*:

Playability: Is the game play inviting enough to lure you deeper into its make-believe world? Does the game build your confidence by making you feel comfortable right away? Can you progress to higher levels of difficulty at your own pace? Is it fun? [SMITH, 1994]

Game designers often use playability as tool for designing better games, as Alan Miller (a former Activision employee) states in a 1983 interview:

I then spent ten or twelve weeks working on the playability and polishing the game. That part of the design process is essentially an editing function - you expand on the good features and eliminate the bad ones. [AHL; STAPLES, 1983]

Like the concept of gameplay, playability also does not have a clear definition in the field of *game studies*. Thus it is possible to assure that there is no consensual definition for playability, even if this concept is developed by several authors, like Järvinen et al. [2002], Kücklich & Fellow [2004], Nacke et al. [2009], Sánchez et al. [2009], and many others. Even though there is no accurate definition for this term, we believe that it might be important to describe the theoretical bases that have been reached until this moment in order to better elucidate and understand playability and gameplay as individual terms.

In an analysis of play and playability as key concepts for the study of new media products, researchers Julian Kücklich and Marie Fellow [2004] first introduce us to a playability definition often used in popular (i.e. non-academic) games criticism, regarding the "extent to which a certain game has the

capability to provide enjoyment for a player over an extended period of time” [Kücklich & Fellow, 2004: 5], linking that ludic feature to the term *replayability*, which can be understood as the power of game to stimulate the player to keep playing it even though she/he has solved it completely. In other words, the same game, the same plot and the same patterns may create interest from the player, keeping her/him “glued” to the joystick after it has been finished. However, the authors also think of playability as an ambiguous term, and they change the analysis’ focus to the player instead of thinking of the playability definition as only depending on games, or design factors. Kücklich and Fellow complement their proposition arguing that the capacity of a game to get the players’ attention resides “not only on the game but also on the player’s skills and expectations” [2004: 5]. In short, Kücklich and Fellow’s definition of playability may be related to players’ expectations and the media literacy brought to the game, influencing on how much the same game may be played indefinitely.

Unlike Kücklich and Fellow, Nacke et al. [2009] see playability as a term only referred to the game and its design, changing the focus from the player interaction to the concept of *player experience* (PX). The researchers argue that “playability methods evaluate games to improve design, whereas player experience methods evaluate players to improve gaming” [Nacke et al., 2009: 1]. In their proposition, *player experience* would connect the game world to the player by the Player/Game compound; in contrast, playability is related to the Design/Game compound, as a tool that helps designers to make better games. Although we find the authors’ suggestions to be interesting, we rather believe that it is a risk to separate the player’s actions from the playability concept, restraining it to technical elements of “Design/Game”, since playability may be also responsible for the circle of information between the player and the action of play, thus generating the gameplay [e.g. in Järvinen et al. 2002; Arsenault & Perron, 2009].

Fabricatore et al. [2002] also make their contribution on the playability subject by making a short but elucidative definition of this term. Thus the authors assert that “playability is the instantiation of the general concept of usability when applied to videogames, and it is determined by the possibility of understanding or controlling the gameplay” [Fabricatore et al. 2002: 317]. Through this authors’ proposal we may notice some differences between the concepts of usability and playability, corroborating with Sánchez et al. [2009], Järvinen et al. [2002], Kücklich & Fellow [2004] and others; i.e. Fabricatore et al. regard playability as a way to interfere or manipulate the gameplay, which is generated by the game algorithm.

Spanish researcher González Sánchez [2009] points out that playability implies whether a game is playable or not, and it is inserted in the *player experience* (PX)

with the game. In Sánchez et al. [2009], PX is described as a concept with much more complexity than *user experience* (UX), corroborating with Fabricatore et al. [2002] in this sense. In their own words, playability is seen as:

a set of properties that describe the Player Experience using a specific game system whose main objective is to provide enjoyment and entertainment, by being credible and satisfying, when the player plays alone or in company. [...] Playability represents the degree to which specified users can achieve specified goals with effectiveness, efficiency and specially satisfaction and fun in a playable context of use [SÁNCHEZ et al. 2009: 357]

All these definitions above presented have the “interaction” concept as a mandatory element of their structure, seen as a usability/design tool seconded by users’ experiences, or seen as the way players act within the game environment in order to have their moments of joy and fun. In this sense, we think it is appropriate to adapt the idea of ‘interactivity’ stated by Katie Salen and Eric Zimmerman [2004] to the playability concept, in which interactivity has been divided into four different levels of engagement that users might have with a system: *cognitive interactivity*, *functional interactivity*, *explicit interactivity*, and *beyond-the-object-interactivity*. It is important to remark that the term interactivity may be more comprehensive than playability; however we see that the both words held some similarities that allow us to study them under the same academic form.

Starting with these definitions, Salen and Zimmerman put in the picture the *Cognitive interactivity* form, as the “psychological, emotional and intellectual participation between a person and a system” [2004: 59], e.g. the way graphics may affect someone’s gameplay by being helpful or even confusing. The second category is the *Functional*, i.e. the structural interactions of the system like the relationship players have with interfaces, functions of joysticks, gameplay responsiveness etc., which has some similarities to the proposal of Nacke et al [2009] of playability as a concept to evaluate and improve design. The third interactivity that Salen and Zimmerman present is the most “ordinary” of all, regarding overt participation like clicking buttons of a mouse, following game rules, and using the joystick to control the avatar in a specific game experience. This category received the name of *Explicit interactivity*, and also includes user participation on “choices, random events, dynamic simulations, and other procedures programmed into the interactive experience” [Zimmerman & Salen, 2004: 60]. At last, the *Beyond-the-object-interactivity* implicates a relationship between user/player and the system, “outside the experience of a single designed system” [Zimmerman & Salen 2004: 60], e.g. experiences as

writing fanfictions, and participating in discussion groups and Internet forums. It is important to remember that these four different levels of interactivity are not separated from each other, as they are acting as a synergic group that commonly occurs in any human interaction experience.

Aki Järvinen is another researcher interested in the term playability. Firstly, the author states a generic definition for the comprehension of this term:

Playability is a qualitative term for the uses of both design and evaluation. It refers, on one hand, to the guidelines regarding how to implement the necessary elements (such as rules) to give birth to a desired sort of gameplay or social entertainment. On the other hand, 'playability' is developed here to function as a similar evaluation tool and research discipline as usability. Playability is, in this sense, a collection of criteria with which to evaluate a product's gameplay or interaction. [Järvinen et al., 2002: 17]

In the same way as Salen and Zimmerman [2004] do, Järvinen et al. [2002] propose a model of playability with four "components": *Functional*, *Structural*, *Audiovisual* and *Social*. These researchers propose that, when towards design issues, playability would help the creation of guidelines concerning the implementation of mandatory elements for developing games and originating gameplay, and, on the other hand, it would also be used as a qualitative tool for the evaluation of the player's interaction with the gameplay. In order to get to know Järvinen's proposal of playability we must introduce its four classes, which work together "creating an immersive and adaptive gameplay experience" [Kücklich & Fellow, 2004: 22]. Based on this, Järvinen et al. [2002] analyze formal and informal aspects of games, resulting in a report that evaluates games and their gameplay patterns.

Firstly, Järvinen et al. [2002] propose the concept of *Functional playability*, regarding control mechanisms, and also the way that this mechanisms control gameplay. This component of playability evaluates "how well the control peripheral and its configurations are suitable for the requirements of successful gameplay" [JÄRVINEN 2002: 28]. E.g. with the analysis of this category we may be able to relate to the study of joysticks, touch screens, mouse and keyboard, and many others peripherals able to interact and activate gameplay. In addition, Järvinen et al. assure that this feature is related to design, as the activated commands must have equivalence on the game world, and also they must be congruent with the gameplay. Moving forward on their idea, Järvinen et al. explain the *Structural* component of playability, that regards aesthetics of digital games, but also considers rules and gameplay patterns as elements that emerge from the interaction between players and games; as the researchers affirm: "the game state changes according

to the pattern the rules create" [Järvinen et al., 2002: 30]. In a very simple way to clarify similarities between gameplay and *Structural playability*, we shall suggest that gameplay may contain instructions about *what* the avatar is capable to do on screen, while the structural elements regard *how* this desired action, which is created by designers/programmers, may be activated.

The third component of Järvinen et al. concept of playability is the *Audiovisual*, regarding games' graphics and sounds. Lennart Nacke states that this feature "is naturally tied to functional playability as interface aspects can directly relate to input controls and feedback of the game" [2009: 11]. For Järvinen et al., this category must be evaluated taking into account an axis running from photorealism to caricaturism and abstractionism, and also other visual aspects that may affect gameplay experience, like dimensionality, point of perception of the player etc.:

Analyzing the audiovisual playability of a product will include detailed observations on possible problems, such as confusing choices of color, and the possible inconsistencies of the game world, as they usually become apparent in the audiovisual implementation. [JÄRVINEN et al. 2002: 38]

At the end of their proposal, Järvinen et al. revise social factors that involve games and playing modes in a so-called category of *Social playability*. This component is rooted on cultural and communicational environments, helping to evaluate "what kind of digital entertainment is suitable for different contexts of use" [Järvinen et al., 2002: 38]. Using this base, the authors work on communicative functionalities as they are responsible for the *Social playability* in and off-game, generating some kind of playability affected by elements that are external to the interaction developed between player/game/design.

At this point we may notice a clear difference between the concepts developed by the quoted researchers, as some of them are thinking of playability as a useful tool to evaluate design [Nacke et al 2009], usability issues [Fabricatore et al. 2009], and others regarding the term by its ludic values, putting emphasis on player's consumption [Kücklich & Fellow, 2004; Sánchez et al., 2009]. In a certain way, when Järvinen et al. [2002] introduced their foundations for understanding playability, they seemed to try to combine both uses - design and player enjoyment - even if their article had been written before other cited works. In our opinion, these concepts are not the same, however they do not exclude one another, given that they are complementing each other, accordingly to the interest and the starting point from which the game is analyzed: the design, the player or the software itself.

### 3. Gameplay x playability

When analyzing (and differentiating) concepts of playability and gameplay, we shall notice that there is no valid pattern to precisely define these terms, however we believe to be possible to highlight some resemblances and differences that may be sufficient to synthesize theories that we quoted in this work. Both terms primarily focus on game experiences, i.e. reactions and influences of games on their interactors. Yet we shall observe that the use of the gameplay concept is more related to game mechanics, with rules as the game *core* [Mäyrä, 2008]. On the other hand, playability encompasses interactions of human agents with the machine, without disregarding design elements and how they are invoked by the player to activate the interactive potential designed for electronic games. Perhaps this is one of the main reasons for the confusion between these terms, as both work directly with elements of design, and also with the way that users interact with the game.

So we choose to draw our attention to the main characteristics of gameplay and playability that have been highlighted by some authors, hence we may be able to build comprehensive definitions capable of synthesizing proposals that were cited beforehand. In Banks [1998] and Farley [2000] we may notice connections of immersion and interactivity between players and the game, something that reminds us of discussions on the *magic circle* and the separation between play and the “real” life [Huizinga, 2003; Salen & Zimmermann, 2004]; on the other hand, in Prensky [2002] we may recognize the author’s concern in defining gameplay beyond game experience, inserting players in a context of design guidelines which has the goal of keeping them motivated. In Björk and Holopainen [2006] functional aspects of design, which have exploration aspects regarding players, converge to generate gameplay; Lindley [2002] focuses his analysis on players’ learning, regarding pattern and rules created by gameplay, in a stance that is very similar to Steven Johnson’s concept of *probing* [2005]; in his turn, Assis [2007] is very succinct in his observations, leaving some important terms with a lack of clear definitions, yet this author draws a notion of gameplay that is associated with *playfulness*. Frans Mäyrä [2008] gives to the concept a different stance regarding interfaces, and concludes that gameplay is an immutable structure within game core: i.e. the rules. Finally we may find complementarities between the approaches of Salem and Zimmerman [2002] and Juul [2005], as they incorporate the main elements previously presented to create a gameplay theory related to rules, interactions and players’ experiences within play contexts.

Through the notion of gameplay developed by Jesper Juul, one glimpses the possibility of linking gameplay to playability:

Gameplay therefore results from the interaction between three different things:

1. The rules of the game.
2. The players(s)’ pursuit of the goal. The player seeks strategies that work due to the emergent properties of the game.
3. The player’s competence and repertoire of strategies and playing methods. [JUUL, 2005: 91]

In that sense, gameplay would be the result of a union of three features that are usually associated to games and play activity: the rules, as an internal element which is an element of games that give them their layout; the pursuit of game goals by players, operating through sequences of tasks given to the player in order to achieve playful, fun experiences; moreover, the experience and skillfulness of players regarding these media, which generates a diversity of ways of game fruition.

Summing up, we believe that the player’s participation on game environment may be one of the methods for activating gameplay, i.e. a hidden structure of the game which is activated through playability. It is important to notice that the gameplay would be also activated by through a simulation of the game itself, as in a *demo play*<sup>7</sup>, in which the game software is in charge of inputting actions that are displayed on screen to the player; thus we believe that using a *demo play*, the game may be emulating human behaviors of playability.

Comparing highlighted characteristics from Jesper Juul’s concept of gameplay [2005] we may observe a familiar proximity with the main features of playability: Kücklich and Fellow [2004] draw attention to abilities and previous knowledge from players as an essential tool for game fruition. Definitions from Fabricatore [2002] and Sánchez et al. [2009] correlate the concepts of usability and playability by placing the understanding process and the gameplay control from players in the core of latter concept, which may be also related to game manipulation.

Despite separating playability and the player’s experience as two terms with different implications, using notions taken from Nacke [2009] we may think of both as elements that modify game environments or modify game fruition through software properties, hence being related to the second of the attributes that generate gameplay - the players’ pursuit of the goal - as pointed by Juul [2005].

Aki Järvinen [2002] thinks of playability as a design tool which is also useful for game/gameplay analysis, helping the creation of key elements as the rules, as well as a term that regards technical aspects,

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<sup>7</sup> Demonstration feature of the game *New Super Mario Bros. Wii* [2009].

like usability. Both Järvinen [2002] and Juul [2005] make connections between the terms *playability* and *gameplay* regarding game rules and the way players activate game programming, changing the game state through their strategies of play. Kücklich and Fellow's [2004] proposal on commands and patterns used by players in-game may be also related to this aspect.

Therefore, although we believe that defining these notions has a didactic role rather than a practical one, whether in game analysis or developing game design, we shall think of *gameplay* and *playability* as different concepts yet intertwined; if *playability* regards how players interact with games, *gameplay* focuses on game mechanics (building game experiences through rules). As we discuss in this article, *gameplay* would be the result of the interaction between *playability* and rules, and those two categories are absolutely imperative to game experiences – there are no games without the player's interaction, and the construction of environments and allowed actions. Thus defining *gameplay* and *playability* is important to build knowledge on the ontology of electronic games and their social-cultural implications.

## References

- AARSETH, E. Computer Game Studies, Year One. *Game Studies*, n. 1, 2001. Available from: <http://www.gamestudies.org/0101/editorial.html> [Accessed 31 January 2008].
- AARSETH, E. *Playing Research: Methodological approaches to game analysis*. Proceedings of Spilforskning.dk Conference, Copenhagen: Spilforskning.dk, 2003.
- AHL, D. H. Atari 5200: Advanced Game System. In: *Creative Computing Video & Arcade Games*, v. 1, n. 1, Spring 1983. p. 46
- AHL, D. H.; STAPLES, B. Interview With Three Game Designers. In: *Creative Computing Video & Arcade Games*, v. 1, n. 2, Fall 1983. p. 11
- ARSENAULT, D.; PERRON, B. *In the Frame of the Magic Cycle: The Circle(s) of Gameplay*. In: WOLF, Mark; PERRON, Bernard (Orgs.). *The Video Game Theory Reader 2*. New York: Routledge; 2009. p. 109-132.
- ASSIS, J. *Artes do videogame*. São Paulo: Alameda, 2007.
- BANKS, J. Controlling Gameplay. *M/C: A Journal of Media and Culture*, v.1, n. 5, 1998.
- BJÖRK, S.; HOLOPAINEN, J.. *Games and Design Patterns*. In: *The Game Design Reader: a Rules of Play Anthology*. Cambridge: The MIT Press, 2006.
- CONSALVO, M.; DUTTON, N. Game Analysis: Developing a Methodological Toolkit for the Qualitative Study of Games. *Game Studies*, v. 6, n. 1, 2006. Available from:
- [http://www.gamestudies.org/0601/articles/consalvo\\_dutton](http://www.gamestudies.org/0601/articles/consalvo_dutton) [Accessed 25 March 2011].
- FABRICATORE, C.; NUSSBAUM, M.; ROSAS, R. *Playability in Video Games: a qualitative design model*. Hillsdale, NJ: L. Erlbaum Associates, 2002, vol. 17, p. 311–368. Available from: <http://dl.acm.org/citation.cfm?id=1466512> [Accessed 03 July 2012].
- FARLEY, R. Game. *M/C: A Journal of Media and Culture*, v. 3, n. 5, 2000.
- HEIMARCK, T. Hacker. In: *COMPUTE!*, n. 71, April 1986. p. 65.
- JOHNSON, S. *Surpreendente!* São Paulo: Campus, 2005.
- JUUL, J. *Half-Real*. Cambridge: The MIT Press, 2005.
- KONZACK, L. *Computer Game Criticism: A Method for Computer Game Analysis*. Proceedings of the Computer Games and Digital Cultures Conference. Tampere: Tampere University Press, 2002.
- KÜCKLICH, J; FELLOW, M. C. *Play and playability as key concepts in new media studies*. Dublin: Dublin City University, STem Centre; 2004. Available from: <http://www.playability.de/Play.pdf> [Accessed 05 June 2012].
- LINDLEY, C. A. *The Gameplay Gestalt, Narrative, and Interactive Storytelling*. Proceedings of Computer Games and Digital Cultures Conference. Tampere: DiGRA, 2002.
- MÄYRÄ, F. An introduction to game studies: games in culture. London: Sage; 2008.
- NACKE, L.E. *From Playability to a Hierarchical Game Usability Model*. Proceedings of the 2009 Conference on Future Play; 2009 May 12-13; Vancouver, Canada. New York: ACM; 2009. p. 11-12. Available from: <http://dl.acm.org/citation.cfm?id=1639609> [Accessed 05 July 2012].
- NACKE, L.E., DRACHEN, A; KUIKKANIEMI, K; NIESENHAUS, J; KORHONEN, H; VAN DEN HOOGEN, W, et al. *Playability and Player Experience Research*. In: Proceedings of DiGRA 2009 Conference: Breaking New Ground: Innovation in Games, Play, Practice and Theory; 2009 Sep 1-4; West London, UK: DiGRA; 2009. Available from: <http://www.digra.org:8080/Plone/dl/db/09287.44170.pdf> [Accessed 05 June 2012].
- PERANI, Letícia. *Game Studies Brasil: um panorama dos estudos brasileiros sobre jogos eletrônicos*. In: Anais do XII Colóquio Internacional sobre a Escola Latino-Americana de Comunicação - Celacom. São Bernardo do Campo: Universidade Metodista de São Paulo, 2008.
- PRENSKY, M. The Motivation of Gameplay or the REAL 21st century learning revolution. *On The Horizon*, v. 10, n. 1, 2002.
- SALEN, K.; ZIMMERMAN, E. *Rules of Play: Game Design Fundamentals*. Massachusetts: MIT Press. 2004.

SÁNCHEZ, J. G.; ZEA, P. N.; GUTIERREZ, F. *Playability: How to Identify the Player Experience in a Video Game*. In: GROSS, T. et al. INTERACT '09 Proceedings of the 12th IFIP TC 13 International Conference on Human-Computer Interaction: Part I; 2009 Aug 24-28. Uppsala, Suécia. Berlin: Springer; 2009. p. 356-359.

SICART, M. Defining Game Mechanics. *Game Studies*, v. 8, n. 2, 2008.

SMITH, S. *PC Pilot: The Complete Guide to Computer Aviation*. New York: Avon Books, 1994

STANTON, J.; PINAL, D. *Atari Graphics & Arcade Game Design*. Los Angeles: Arrays, 1984.

VANNUCCHI, H.; PRADO, G. Discutindo o conceito de Gameplay. *Texto Digital*, v. 5, n. 2, 2009.