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The Player as a Hybrid:

Agency in Digital Game Cultures

ABSTRACT

This article studies the player as a hybrid: a particular compound version of subjectivity that emerges from involvement with the contents, cultures and technologies of games. Drawing from both cultural studies of technology and phenomenology of game play, the article aims to connect key historical works in cultural technology studies with game and play studies to open perspectives into the tensions and potential conflicts that underlie the empowerment and expansion of gaming self. While engaging in game play provides us with novel opportunities for experiencing alternate realities and developing our abilities, our connections with games are also power relations that shape our hybrid, cultural agency in ways that we are not necessarily always aware of. The increasing intermingling of technology and play has consequences for players' agency that are revealed to be simultaneously empowering and limiting. The multiple identified areas of tension in the constitution of hybrid player agency also suggest a non-essentialist approach to understanding games, players and playing.

KEYWORDS: *agency, game controllers, game culture, phenomenology, play, power, technology*

INTRODUCTION

This article is focused on understanding the player as a hybrid: a particular version of subjectivity that emerges from involvement with the contents, cultures and technologies of games. Drawing from both cultural studies of technology and phenomenology of game play, the article offers a historically informed look into the tensions and potential conflicts that underlie the empowerment and expansion of gaming self. While engaging in game play provides us with novel opportunities for experiencing alternate realities and developing our abilities, the intense connections with games are also power relations that shape our hybrid, cultural agency in ways that we are not necessarily aware of. Providing a wide, historically informed outline for understanding technology-related play both in its micro and macro dimensions is something that this article can offer

to the reader. While providing a comprehensive review of all relevant discussions within this very wide subject matter is impossible, the aims of this article are more modest: of providing milestones for mapping certain discursive spaces surrounding the hybridization of players' agency.

The conceptual background for the analysis of cultural agency in the digital era can be found by examining the human cultural relationship with technologies more generally. While agency is a critical component in games, its nature varies significantly from one game to another. Contrasts can be detected, for instance, between the agency of a player engrossed in controlling the wheels and pedals of a rally game in an arcade, of a player relaxing and passing time on a sofa while tapping away on a tablet game, a team of players intensely engaged in an eSports computer game at the grand finale of world championships, or yet another type of player, walking on the streets while participating in the location-based *Pokémon GO* (Niantic, 2016) mobile game, occasionally swiping on her smartphone.[1]

In general terms, agency in games is multi-layered, as various frame analyses applied to gaming have shown (e.g. Goffman, 1974; Fine, 1983). Some of the game studies into this area have particularly emphasised how the degree and character of agency differentiates games from other digital media, for example (e.g. Laurel, 1993; Murray, 1997). Ability to act within, and (re)configure the contents of games has been discussed by many game scholars as the hallmark of games from multiple perspectives, while differing in their view about the role of narrative, for example (Eskelinen, 2001; Mateas & Stern, 2005). More recently, the discussions of game agency have begun to acknowledge that games are not only the actions of their human operators, but equally also those of machines (Galloway, 2006, p. 5). Agency in digital games has evolved into a deeply complex and multidimensional phenomenon, partly due to the multiplicity of digital games and the vast differences between them, and partly due to the special characteristics of the technological, financial and sociocultural relations manifested in digital games. Different research traditions define agency in various ways, but at its heart, the term describes the capacity of an individual, a group or sometimes an institution to act in a given context. Discourses regarding agency have historically emphasised, among other things, different ideas on the role of free will and individual freedom and, on the other hand, agency that is determined on a collective level and by social structures (some of the key contributors in this tradition are Aristotle, Thomas Aquinas, Hegel and Marx). This article centres around a specific type of cultural agency that encompasses both collective elements, such as cultural history and different forms of expression (macro level), and individual choices and actions (micro level). In fact, cultural studies often combine the collective and the individual and define agency as a culturally and socially determined capability to act and make a difference (cf. Barker & Jane, 2016, p. 632).

1. Note on the use of personal pronouns: this article avoids using one personal pronoun exclusively about the player agency, and intentionally switches between female and male pronouns.

With regard to game progression, the effects of a player's actions are crucial in whether a game advances and whether the problems and challenges presented to the player by the game are solved. On the other hand, an individual that is immersed in a game transforms into a special, gamified hybrid (for an early theory of hybrid agency, see Haraway, 1991). The various dimensions of hybrid agency are typically influenced by, for example, a game's functionalities and the goals determined by the rules of a game as well as a player's physical interaction with the material manifestations of a digital game, such as game consoles and controllers. Furthermore, a player's sociocultural orientation towards games and gaming acquires added dimensions and new manifestations as it is enacted in an environment shaped by game code and programmed non-player characters guided by artificial intelligence.

We need perspectives for future research in this area that are based on close examinations of the ways in which the relationship between humans and game technology has been determined in the recent history of digital gaming. Such examination in this article is grounded on a discussion of highly tangible game-related technologies and the meanings associated with their use. Research on this topic has previously been published, inter alia, in the *Platform Studies* series (MIT Press), which aims to analyse the foundations of digital media technology from a cultural perspective by focusing on a single gadget or a gaming platform (see e.g. Montfort & Bogost, 2009).

In this article, hybrid agency is conceptualised through the circular dynamics of cultural production: existing physical and non-physical elements, which both construct and restrict agency in games, provide a groundwork for the development of expectations and competencies, which in turn inform the formation of new physical and non-physical game cultural elements in various ways (cf. Johnson 1986; Mäyrä 2007). Philosophically, this article aims to outline the interfaces between and the reconfigurations of material technology, digital contents and the cultural and aesthetic dimensions of human performances with the help of examples from the gaming context.

The starting point is a tangible and material object, a game controller, as well as its multifaceted role as the material interface between a human player and digital game. This initial focus is gradually expanded into various larger elements that shape game player agency.

CULTURES OF TECHNOLOGY

Modern games are inseparably linked with modern technologies, but compared to cultures of technology, game cultures constitute a fundamentally broader, or at least more complex, phenomenon. While digital media and information technology are key elements of modern electronic or video games, the various processes related to games, gaming, game design, the distribution and consumption of games, and the agency constructed in these processes are not limited to technology but also include key dimensions related to non-material

social customs, practices and norms. It is however useful to examine the cultural dimension of technology and its research tradition as a starting point to an analysis of the development of gaming and especially digital games.

One key analyst of technology cultures, Arnold Pacey (1983, p. 5; cf. also Pacey, 1999), highlights the way discussions about technology often emphasise the organisational level of technological systems or the technical, engineering dimension of how technology functions. However, these dimensions are shaped by deeper cultural values, norms and other structures that guide thinking and ways of experiencing, which play a key role in the development of creative activities in this field. Technology is fundamentally human activity guided and informed by cultural and ideological meaning structures. Thus, instead of nouns, technology is more conveniently conceptualised with verbs – as specific kinds of functions and activities. Pacey (1983, p. 6) depicts the multidimensional nature of technology through a model where the purely technical dimensions of technology are inseparable from cultural and organisational phenomena, such as the goals, values and principles of financial interactions intrinsic to each society.

One of the most common lines of analysis in the philosophy of technology seeks to understand the interconnection between human and his devices. Among the first modern endeavours was *Technics and Civilization* by an American architect and theorist Lewis Mumford, which was published already in 1934. Mumford (2010, p. 14) discusses the mechanical clock as one practical example of a technology that was intrinsically connected to a comprehensive cultural shift that changed how people lived, thought and organised their societies. A mechanical conceptualisation of time ushered in a new routine and, for its part, furthered many new ways of social organisation. However, even the most automatic machine produces nothing of significance if it is separated from people, culture and society – it is only in this (situated) framework that its physical-mechanical operations acquire a sociocultural purpose and meaning. Mumford differentiated between a *tool* and a *machine*: a human employs a tool as a part and a direct extension of his craft, while a machine operates with a higher degree of autonomy.

The technological determinism embedded in Mumford's thinking has been widely criticised in more recent research (see e.g. Lemola, 2000). Pacey's (1983, pp. 8-11) example of the hand pumps that were installed in Indian villages in the 1960s and 1970s to provide better access to water highlights the significance of sociocultural practices and values in relation to technological activity. In the period leading up to 1975, over 150,000 wells were drilled in Indian villages suffering from drought, each of them provided with new pumps. According to reports from authorities, as many as two thirds of the pumps soon ceased to function. Mechanical improvements to the pumps did not eliminate the problem: instead, the failures continued. It was not until people started actively paying attention to how water management and the tasks and values related to it were organised in the villages, discovering that the use of the pump could

either be in conflict with this local system or become an integral part of it, that more sustainable results were achieved.

It may be that sometimes and, in some contexts, play and digital games can face similar destiny as those new Indian water pumps. There are studies that suggest, for example, that the attitudes towards engaging with playful designs and play elements in work-related contexts are culturally determined but also subject to change (Dippel & Fizek, 2017; Kultima et al., 2018). Even the most playfully designed game (or, work environment) does not play itself; in order to operate, playfulness and play as a practice needs to be an organic element of the culture and rooted within the context in question.

DIGITAL GAME: THE FIRST CONTACT

The early stages of digital game cultures were often characterised by people informally and experimentally appropriating technological infrastructures designed for other purposes. The space combat game *Spacewar!* is a good example. Early mainframe computers were expensive investments and were mainly utilised for financial, administrative, scientific and military applications due to their ability to handle large amounts of data and perform complex calculations. The DEC PDP-1 computer, which was acquired in early 1960s by Massachusetts Institute of Technology (MIT), was exceptional, as it was available for free experimentation by the university's staff and students. In 1962 this playful freedom bore fruit, and the local programmer community, with the lead of Steve Russell, developed a "space game" inspired by science fiction. Since fiercely pressing the buttons on the control panel of a wardrobe-sized computer was in many ways troublesome, the developers decided to build a separate handheld controller, which became one of the first dedicated game controllers (Donovan, 2010, p. 11). The controller had sideways switches for controlling the movement of the ship (e.g. jumping to 'hyperspace') and a separate button for firing space torpedoes (see Figure 1, next page).

Dubbed as 'minicomputer', DEC PDP-1 represented advanced information technology in the early 1960s. It had 2,700 transistors[3] and weighed over 500 kilograms. Compared to previous mainframe computers with price tags of millions of dollars, PDP-1 was affordable at 120,000 dollars (in US dollars of 1960).[4] In fact, the evolution of prices in information technology had significant consequences not only for the spread and accessibility of technology but also for the development of user cultures, values and attitudes around technology. The use of PDP-1 was not restricted at MIT in ways that were typical in the 1950s for mainframe computers (Levy, 2010, pp. 15, 33-50).

In early depictions of hacker culture, the relationship between information technology, its users and its developers is described as very close, almost symbiotic. However, this type of intense relationship with information technology is nothing exceptional. In her books *The Second Self* (1984) and *Life on the Screen* (1995), psychologist Sherry Turkle discusses the development and diversifica-

3. Computer History Museum. 2011. "Inventing the Transistor – PDP-1 Computer". http://www.computerhistory.org/revolution/digital-logic/12/273/1370

4. Computer History Museum. 2005. "Specifications – PDP-1 Computer". http://www.computerhistory.org/pdp-1/specifications

Figure 1 – Dan Edwards (left) and Peter Samson playing Spacewar! on a PDP-1 Type 30 display. (Image source: Computer History Museum, www.computerhistory.org)[2]

tion of personal relationships with information technology across decades. She emphasises that for a large group of people, information technology has for a long time had a relatively limited and instrumental role: computers were simply tools they needed to perform certain tasks at work.

However, the proliferation of consumer electronics, home computers and video game consoles has changed this picture. In a leisure context, one's relationship to a personal computer or a game console can develop into something deeper – it can become "cultured" in a more comprehensive sense of the word. In fact, many people report in Turkle's studies how their interactions with information technology changed their self-relationship, led them to a new profession, introduced them to new relationships or prompted them to develop their aesthetic ideals, cultures and value systems (Turkle, 1984, pp. 155-56). Turkle's more recent works *Alone Together* (2012) and *Reclaiming Conversation* (2016) take a significantly more critical stance towards human's relationship with information and communication technologies, especially as we have become increasingly aware of the social consequences of ubiquitous online media use in the

2. Computer History Museum. 2005. "PDP-1 Computer". http://www.computerhistory.org/pdp-1/a87ddd9510aeebf6485c47a35f8a26aa

last decade. One consequence of the expansion and transformation of the early hacker and hobbyist (sub)cultures into cultural mainstream has been the spread of games and the associated ludification of culture (Dippel & Fizek, 2017; Walz & Deterding, 2015). This development has also evoked its share of concern and criticism, as well as enthusiasm (Kowert & Quandt, 2015).

A GAME THAT PLAYS THE PLAYER

The relationship between human and information technology has seen especially intense and multidimensional development in the field of electronic games. An early incarnation of a two-player digital game of skill such as *Spacewar!* offers a simulated playground for space warfare, where a player's skill with the game controller as well as his strategic ability to move spacecrafts, to use the gravity star at the centre of the playing field and to fire torpedoes become critical. Digital games soon developed to offer single-player options where computers, in addition to creating a game world, provide various programmed opponents and challenges. A human player ultimately has the decisive responsibility: without a player's active engagement with a game's challenges, the game will not be able to fulfil its role in creating a game experience. (Fully automated, so-called *zero-player* games provide an interesting extreme example – see e.g. the analyses by Fizek, 2018). In the performance of gameplay, information technology has an all-encompassing role: the aesthetic experience created by a game is an ecosystem where the gaming device, the software code, the game world, characters, fiction and other dimensions become entangled. The player herself, with her individual skills, motivations and capabilities, also plays an important role. It is perhaps impossible that even identical games, gaming devices and the same game program code would ever be experienced as exactly identical phenomenological entities by different people. This is analogous to the ways in which the "concretization" of text operates during the act of reading, analysed earlier in the fields of reception aesthetics and reader-response of literary studies (Ingarden, 1931; Iser, 1978). A beginner's game session may end abruptly due to a lack of required skills. On the other hand, gaming virtuosos may play with their own idiosyncratic styles and distinctive strategies. Looking at game design, the basic idea of many popular open world games, which are typically not only spatially non-limiting but also designed to support various strategies (e.g. so-called *sandbox games*), could be argued to operate as encouragement for players to experiment with significantly varied ways of playing. It is indeed difficult to discuss such fundamental features of games as them being designed to be "open" or "closed" without also taking into account the skill and performance of a player as the agent of play (Juul, 2002).

The gaming device, as well as its physical controllers and digital software code, can be examined as an instrument-like entity. A player must understand the possibilities and restrictions of a game and its controllers in order to successfully interact with the game. The relationship between "game object" and player

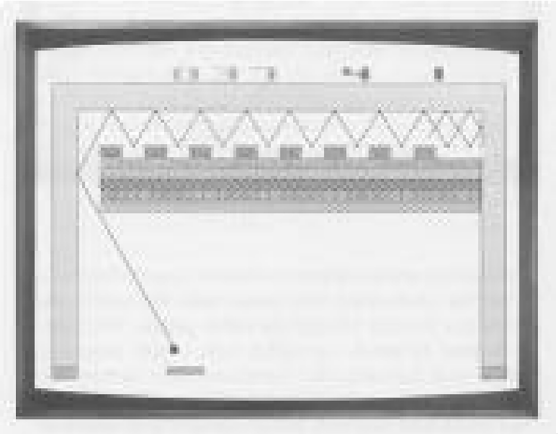
is further discussed by Espen Aarseth (2007), who applies the thinking of Hans-Georg Gadamer to modern game research. Games and play are at the centre of Gadamer's thinking on the ontology of the artwork. In his book *Truth and Method* (1960), Gadamer develops the idea that what is essential to the allure of games and playing is the fact that an individual must surrender his freedom while playing: in reality, contrary to the popular belief, rather than player being in charge, "the game plays the player" (Gadamer, 1960/2004, p. 106). Similarly, at the core of Gadamerian aesthetics more generally lies a desire to understand the objective essence of an artwork which informs our subjective experiences of it. There are limits to this power relationship though. If the player has no skill, the game is not capable of utilising its fundamental potential to direct the act of playing.

In addition to Gadamer, Aarseth (2007) applies Wolfgang Iser's (1978) concept of the implied reader to game research by developing a theory of the *implied player.* This theory posits that each game as a hermeneutic and aesthetic object contains within itself a set of instructions to play it. The theory identifies an ideal (and theoretical) implied player, which describes a player capable of playing a particular game in a way that allows all of its built-in aesthetic potential to unfold through actual events in the gameplay to the fullest extent possible. This hermeneutic approach to game research differs from the more strongly empirical and social science approaches, which (at least from an Aarsethian viewpoint) focus less on games as works of art and more on the gaming of diverse empirical and historical individuals and the meanings and contexts they assign to games in their own lives. On the other hand, Aarseth himself emphasises the opportunity of a critical player to deviate from or rebel against the embedded position of an obedient model player. The different knowledge interests are nevertheless crucial to note here: while one approach seeks to understand a style of playing a game that is typical to or characteristic of a certain group, the other is interested in an idiosyncratic playing style which provides insights on (or even expands) the nature of the game as a piece of art.

PHENOMENOLOGY OF GAMING: SUDNOW

There have been only a handful of individual analyses that have sought to examine the intense, ontologically deep connection between game and player. But then again, on the other hand, a large number of studies on the topic have depicted, for example, the experiences of flow associated with gaming (e.g. Sweetser & Wyeth, 2005) or immersion in gaming and game worlds (e.g. Ermi & Mäyrä, 2007), but it is less often that this type of psychologically oriented research engages in a deeper analysis of the concrete game-related practices that form the unique interaction between game and player. Game experience research (often relying on computer-human interaction methodologies) also seldom adopts a broader, philosophical approach to examining a player's agency and its characteristics – though, from contemporary game philosophy some such discussions of experiences can be found (see e.g. Leino, 2010; Gualeni,

2015). As an exception among the early work in the player experience studies stands out David Sudnow's book *Pilgrim in the Microworld* (1983). Sudnow was a pianist and sociologist famous both for his method of piano teaching (*The Sudnow Method*) and his books on the topic (e.g. *Ways of the Hand*, 1978/2001). *Pilgrim in the Microworld* describe his ceaseless efforts to master the Atari 2600 version of the video game classic *Breakout* (1978) as fully as possible, while also acquiring a deeper understanding of the game's essence. His detailed, micro-level analyses on the mastery of the manual game controller as essentially intertwined with the ways of thinking about gameplay lead in Sudnow' thinking into ideas of how information technologies will provide the next step in the line of "quintessential human instruments" like piano and typewriter (cf. Figures 2 and 3).



Figures 2 and 3 – The simulated paddles of Breakout (Atari, 1978) and the hand moving the physical game controller (Sudnow, 1983, pp. 27, 29).

In Sudnow's phenomenological close reading, the agency of a digital game player appears as an interestingly contradictory phenomenon. On one hand, the gamer subject is an evolving virtuoso, the self-aware focus of resolute practice and study. On the other hand, he is an object subordinate to a game, whose agency is shaped by hours of patient and disciplined efforts to internalise the requirements stipulated in the game's program code. In fact, Sudnow's concept of a game player as a subject who is both emancipated and escaping (or lost) into the game world, points to an observation of games as Foucauldian technologies of the self – technologies that help subjects change and evolve as entities that encompass body, mind, thinking, behaviour and ways of being (Foucault, 1988). From a Foucauldian perspective, technologies of the self are also inseparable from power: by observing the gamer subject, we can recognise how his concern for himself and the development of his subjectivity – in this case, player agency – is simultaneously a submission as a part of a game's structure and mechanisms. The player's agency is realised within the framework set by the game and, in an inherent conflict, experiences the restricted freedom of the game both as em-

powering and objectifying. In similar lines, Andrew Silverman and Bart Simon (2009) have written about the "timetabling of movement" and "ranking of behaviors" leading into a "micro-physics of power" through which bodies can be made docile; and also Felan Parker (2011) has made an analogous interpretation, arguing that what he calls "expansive gameplay", allows people to "enjoy the illusion of liberty while their real lives remain unchallenged and unchanged".

The analyses of power in gameplay and game culture have gradually expanded and grown more nuanced. Following Sudnow, Brendan Keogh has written an engaging account of our mental-bodily relationships with games and game controllers in his *A Play of Bodies* (2018). He notes that if videogame play is "embodied textuality", then to play a videogame requires an "embodied literacy". As he notes, the "literate videogame player knows in their hands the way around the conventional spatial syntax of the input device, has a basic understanding of the performative grammar of different videogame genres […] and is able to transport and adapt this literacy from one videogame to the next" (ibid., p. 91). The micro level interactions of players' hands and gaming controllers are thus sites from where one can move into making more general level conclusions about games in culture, and also about the construction of game playing agency.

THE DUAL NATURE OF PLAYER AGENCY

Changing the perspective to a bit higher level of abstraction, an American game and media researcher Bob Rehak (2003) illustrates the dualisms and tensions of player agency in his analysis of avatars. Within the framework of a game, an avatar that represents a player "is" the player, meaning that its function is to embody or expand the player's agency within the internal world of the game, while also being separate from the player. An avatar's abilities and characteristics are determined and developed in the 'magic circle' of the game (Stenros, 2014), which is based on a programmed system of rules and the dynamic goals and game mechanics derived from that system. In a classic, "8-bit" style video game such as *Breakout,* the player is represented by a cursor-like, simple game tool or a controllable, simplistic pixel character. Rehak nevertheless emphasises that advancements in information technology in the context of game design have generated an increasing focus on game fiction, which relates especially to aspects such as the visual and narrative complexity of game characters and game worlds and the internal realism of a simulation. Meanwhile, the tension underlying the game character has intensified: it has maintained its basic function as a cursor or a game tool, which is the focus of Sudnow's *Breakout* analysis that emphasises hand-eye coordination. Then again audiovisually impressive, often strikingly film-like modern games provide opportunities for identification and immersion where a subject engrossed in play transforms and expands not only as a more or less virtual problem-solver in the playing field but also as an implied subject within a game fiction whose tangible, experiential character is in various ways supported by increasingly powerful digital,

audiovisual and haptic technologies. Thus, instead of the skilful handling of a game tool, the central promise and objective of gaming would be shifting towards identification with game fictions, immersion in realistically modelled game worlds and merging with game characters.

Bob Rehak underscores the fact that in game analysis, we inevitably must consider the dual nature of our player agency – the game character as an extension of ourselves but also as a separate character, external to ourselves. A game or a game character never follows its player's wishes and commands completely seamlessly or smoothly. Especially the early stages of a game involve a significant number of frustrating fumbles and often-repeated failures. Bugs in the game code may also lead to a game getting stuck or crashing in a way that acts as a crucial reminder of the fundamental separateness between the player and the reality of the game. Game characters are also programmed with skills and tendencies that have their own, separate nature from each player's personality and abilities. In a deeper sense, our daily relationships with ourselves already contain in themselves the same dualistic dimension. Rehak (2003, p. 123) refers specifically to psychoanalytic and post-structural studies on the self/subject and how our sense of self is partly determined in a tensioned relationship between the observer and the observed (cf. Lacan, 1966). According to Rehak, video games exploit this basic dynamic, in which we essentially have an avatar-like relationship with ourselves. Daniel Vella (2015) has developed the dual model of "ludic subject" in the phenomenological frame further, to take into account how players are positioned both as game-internal actors, and as game-external observers of their own actions.

David Owen, who has analysed the affective potential of video games (2017, p. 31), emphasises that rather than reinforcing a traditional Cartesian mind–body dichotomy, games have to do with a deep connection between mind and body that is intensified by experiences of immersion and merging. The tradition of existential phenomenology has sought to distance itself from the essentialism of a thinking self and to understand agency and the self in a broader framework. Andy Clark and David Chalmers (1998) outline a theory of *extended mind*, which is based on the deep connections, interactions and mergers that constantly take place between mind and body, as well as between various tools, environments and objects. Owen points out that in an increasingly games-saturated, ludic culture and society where games, game characters, game technologies and game worlds are a central component of many people's everyday experience, the connection between the features of a game and the mind and body of its player is also real and all-encompassing. Mihaly Csikszentmihalyi (1991) discusses in his research the state of *flow*, which in the midst of a game can be an intense experience: the player 'forgets herself' and for a moment becomes one with the game, the game character and the events of the game. Gordon Calleja (2011) has argued that flow experience in game play is actually a merger of two forms of "immersive" experiences: transportation into another

reality, and absorption into engaging activity. Our earlier study has also identified the importance of imaginative engagement with games and play as fiction, as a third key dimension in player experiences (Ermi & Mäyrä, 2007).

Danish game researcher Jesper Juul (2005) illustrates the negotiation of a player being both simultaneously in-game and out-game with his idea of games as 'half-real'. While playing, physically and mentally real players commit to a set of rules that have real-life consequences. At the same time, the game also advances as an imagined and fictional phenomenon in the players' minds: sometimes a player's choices may be based on the priorities dictated by the rules of the game, other times concerns that are internal to the game fiction, such as drama between two game characters or the game narrative, take precedence in the player's mind and experience (the discussion on game fictionality has been further developed e.g. in Tavinor, 2012; Meskin & Robson, 2012). The complex negotiations that are required by the playing agent to navigate between these diverse orientations and the multi-layered reality of games have been discussed especially in the context of role play. Players' negotiations between different dimensions related to game mechanics, game worlds and game characters have been described in a model that identifies three basic orientations (*Threefold Model*). The model distinguishes between players for whom the fundamental reality of games has to do with solving challenges and winning, players for whom playing is first and foremost about creating and participating in an interesting story, and players who appreciate the internal logic and ontological coherence of the game world. These player types are referred to as the *dramatist*, the *gamist*, and the *simulationist* (Kim, 1998). The "same" game is not actually the same kind of game, when players differ. This suggests that there exist further dimensions of complexity in the power dynamics that are embedded in or surround the player-game dual-form agency.

THE EXPANDING AND TENSIONED CONNECTIONS OF GAME AGENCY

One framework that is special to agency in games relates to not only the physical, embodied connection between game tool and player highlighted by Sudnow in his *Breakout* analysis but also to the consequences of the playtime and the numerous repetitions necessitated by a challenging game to a player subject. A player must improve in order to advance, which means his agency also transforms – a beginner becomes a competent player and, with time, possibly a virtuoso fully versed in the nuances of a particular game. On a basic level this is true for all learning: our experiences and challenges transform us, and we become different people with age and experience. In the context of an extensive and multidimensional game, however, this learning and change in agency may be subtle and all-embracing. This can be exemplified by extensive online role-playing games such as *World of Warcraft* (WoW; Blizzard, 2004-). Scott Rettberg (2008) describes in his first-hand accounts the hundreds of hours he spent in the fictional fantasy world of Azeroth while playing WoW. Through his hunter

character, he not only participated in experiencing and developing the shared interactive story world but he also became involved in the virtual economy and progression-based challenge structure of the game. He noticed that using his resources inefficiently caused him to fall behind his fellow players, so that the game practically forced him to study its revenue generation and exchange logic as well as to identify optimal strategies for developing the abilities and assets of his character. There was a hidden power dynamic that had an ideological dimension, which subjected the WoW player as its object. Recalling Althusser's theory of ideology, Rettberg states that a game such as WoW with its virtual currencies and electronic marketplaces is a significantly more elaborate and extensive technology to train the citizens of a capitalist society than, for example, the traditional board game *Monopoly* (Parker Brothers, 1935-). David Owen (2017, p. 165) also remarks that blurring of the virtual and the real can have deep ideological effects to the construction of our agency.

In Sudnow's case, an analytical player could observe in micro-level detail how his physical agency was constructed in a circle governed by the game device, its controllers and the feedback loops of game functions programmed in a virtual playing field. In modern games, these feedback loops are formed by the dynamics created by the game controller and the digital-physical game tool, as well as the various additional layers coded in the development logic of a virtual character, for instance, or similar dynamic processes in the social structures enabled by the game or in its virtual economy. A skilled player succeeds in mastering several of these different dimensions as seamlessly as possible: in addition to being able to play the game in a technical sense, she also understands the boundary conditions for the progress of her game character in the networks of skills, equipment and professional and social structures.

However, it is a sad reality that even a motivated, aware and competent player cannot grasp today all of the numerous industrial, financial, technological and technocultural causalities and power dynamics that form the complex networks in which her game cultural agency is constructed and realised and whose pressures she is subjected to. When a player voluntarily surrenders to a game, devoting perhaps hundreds of hours of his time in order to produce virtual goods or to pursue higher status for her game character, in addition to creating a game cultural meaning and identity for herself (Mia Consalvo discusses 'gaming capital' in an applied Bordieuan sense; see Consalvo, 2007), she also, through her efforts, participates in a system that aims to generate profits for a commercial company, among many other things.

Game cultural agency, just as cultural and social agency in general, is marked by asymmetrical power relations and various internal tensions. Financial and industrial power relations represent one dimension of the phenomenon: players who modify games, i.e. 'modders', essentially provide free labour to game companies and rarely have acknowledged rights to the content they create (e.g. Kücklich, 2005). On the other hand, gaming is also a contested area

from the perspective of cultural values. Immersing oneself into the world of games and play may be acceptable for children and adolescents, but adult play has traditionally been regarded as suspect. An essential component of Christian heritage, as in northern Protestant culture, has been the sinfulness of games and many other aspects of popular or 'low' culture. Card games, for instance, have been associated with the risks of gambling as well as negative norms related to the 'wasting' of time (for the sinfulness of gambling, see Matilainen, 2017). Max Weber (1905/1990) describes the traditions of thinking and behaviour related to religious and societal norms wherein especially Western and Northern European societies developed a link between human dignity and hard labour and, correspondingly, between leisure and sin.

After discussing such macro level dynamics cross-cutting late modern culture and society, it is important to remember that even today, a person grabbing a game controller faces the same basic challenge that confronted David Sudnow in the early 1980s: how can one control a game while accepting that one is also controlled by it? Gaming has certainly undergone a great transformation and become more diverse over the decades due to developments in technology and digital game culture. Some evidence for this can be found from statistics. According to the Finnish Player Barometer, for instance, which maps the phenomenon of gaming in Finland, nearly 90 percent of Finns play a game at least once a month. Some 60 per cent play a digital game regularly. Puzzle games, such as different word games, sudokus, card games and crosswords are the most popular category of games among children, adolescents and senior citizens alike (Kinnunen, Lilja & Mäyrä, 2018). Mainstream game culture is thus not focused on skills challenges such as described by Sudnow or challenges of gameplay that require absolute precision with a game controller and a continuous development of one's skills. In quantitative terms, games played as a pastime or for mainly social reasons are a more significant phenomenon than skill-based play (Kallio, Mäyrä & Kaipainen, 2011; Juul, 2010). This is connected to changes in the discourse on gaming: in the 21st century, gaming is increasingly regarded as commonplace, just another part of people's everyday lives. The hybrid nature of game cultural agency – its diversity and complexity – nonetheless characterises even the more leisurely aspects of game culture. It is important to keep in mind that game cultural agency is constantly reshaped and developed by people, individuals and groups who have cultivated various motivations, abilities and opportunities to exert influence within cultural and societal structures.

CONCLUSION

Games offer experiences to their players which are in various ways rewarding and enriching, but an analysis of game cultural agency draws attention to the multiple power positions, tensions and potential for conflict that are also inherent to games. When faced with the challenges of gameplay, a player inevitably develops and transforms as a subject. At the same time, this activity and change

lead to the development of a unique, mixed and complex player-game agency within the framework of games and their power structures. A player naturally always has opportunities to defy the programmed plan or script of a game. She can also try to oppose or protest the sexism and stereotypical gender roles that are still present in character descriptions and game marketing, for example. It is however impossible to fully detach oneself from the networks of structural power that entangle the various areas or dimensions of hybrid game agency.

There are ongoing developments in areas such as location-based gaming, and in play that takes place with augmented reality and with the use of smart objects (that can be various sensor-enabled toy-game hybrids, for example) that all suggest increasing blending of physical and digital dimensions in play situations. Arguably play and games have also become more tolerated or even appreciated parts of culture and society, finding applications in multiple, previously distinct areas of life, such as education, leisure and working life. Physical-digital hybrids and experiments in work-play hybridity underline the visible and expanding role that hybrid play has in contemporary, post-industrial society. The discussion in this article has nevertheless suggested that the roots of hybrid play go even deeper. As there are multiple, micro and macro level power relations that both enable and restrict agency in all play, there is fundamental hybridity built into the play situation itself. The above analysis suggests an anti-essentialist way of understanding game, player, and the act of playing: none of these elements exists in isolation, but rather emerge as interdependent aspects of play that is fundamentally rooted in boundary-breaking hybridity.

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