

Ludification of culture: the significance of play and games in everyday practices of the digital era

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Ludification of Culture. The significance of play and games in everyday practices of the digital era.

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Abstract

The article explores the concept of ludification of culture and its application to hermeneutical and empirical research of everyday social practices. It debates the significance of play and games in the digital age, with a special focus on work scenarios. Aware of its limitations, the authors propose to extend the concept with a metaphor of work and play interference, which more accurately describes current social phenomena, interwoven with both qualities. The argumentation unfolds the anthropological consequences of *homo ludens* in a post-industrial world.

Ludus and the empirical cultural analysis

“[T]he desire to play is fundamentally the desire to be.”

(Jean-Paul Sartre 1995: 170)

Play and games open up new dimensions and fields for the analysis of digitization processes and phenomena within the framework of theoretical and empirical cultural research. Play as such, as well as its current digital manifestations, may be axiomatically positioned as fundamental constituents of human behaviour, which keep unfolding their potential within and amongst us.

In recent years, the permeation of various life domains with the logics of play in particular and the *ludification of culture* in general have been gaining an ever-greater significance. A variety of play forms has been proliferating in the digitized everyday. This abundance of playfulness is reflected in the symptomatic questions posed by ludologists and media scholars: “What if our whole life were turned into a game? What sounds like the premise of

a science fiction novel is today becoming reality” (Deterding & Walz 2015). The growing presence, significance, and recognition of play has also led to the proclamation of the 21st century as the ludic century, with games becoming the dominant socio-cultural organisation form (Zimmerman 2009).

From an anthropological perspective, the above hypotheses may seem a bit too far-fetched. In its long and lively tradition of play research, anthropology has witnessed the omnipresence of playfulness independently from digitization processes (Malaby 2009). Furthermore, the 18th century was already proclaimed the century of play. In 1756 Daniel Bernoulli, a Swiss mathematician and physicist, noticed: “The century that we live in could be subsumed in the history books as: Free Spirits’ Journal and the Century of Play” (Bernoulli 1769: 387, Bauer 2006: 377, Fuchs 2014: 131).ⁱ

However, it seems that along with digitization new playful dimensions and fields have begun to emerge. Play and games are observed, designed, and theorised in new contexts, ranging from pastime and idleness to productivity and work. On the following pages we are discussing the significance of the concept of the *ludification of culture*, demonstrating how the playful phenomenon has spread in digital times, and how it has been influenced by the digital calculating machine; particularly its capacity to process large amounts of data and the ability to afford communication in large networks. As will become evident in the presented examples, the qualities of the digital medium facilitate human creativity to build new forms and sorts of play – material, symbolic, and imaginary alike.

The aim of the current article is to lay at the reader’s hands an analytical and conceptual tool that would characterise the omnipresence of play in the digital sphere of the everyday. We are first introducing the concept of the *ludification of culture* from multidisciplinary perspectives, with an emphasis on cultural anthropology, philosophy, media theory, and games studies. In our argumentation we are connecting recent academic approaches with the already established scholarly research tradition on play, games, and the digital sphere. To clarify the concept further, we are drawing upon examples from empirical research, which illustrate how our digital everyday is permeated with the logics and metaphors of play, and what follows how the *ludification of culture* manifests itself in specific social practices, such as work. In the concluding paragraphs we are sketching tendencies and further possibilities for the implementation and development of the concept in combination with empirical research on

ludified social phenomena.

Ludification of the everyday

“[T]he thought of viewing culture *sub specie ludi* is not new.”

(Johan Huizinga 1938/1992: 4)

The omnipresence of digital and analogue games

In her anthropological analysis of the digitized world, Gertraud Koch illustrates the growing importance of digital media through numbers. More and more people spend their time in digital spaces, which as a consequence alters their everyday experiences, she emphasises (2015: 180). A similar quantitative method may be applied to pronounce the ever-growing importance of digital games and playful applications in other spheres of our lives. Currently, there are 1500 millions of mobile gamers around the globe of various ages, genders, and social backgrounds (Global Mobile Games Market Report 2013).

Games have been gaining an ever-greater presence and significance in the digital sphere. They are no longer played only for the game's sake. They may be serious, educate, express purpose, or contribute to a social change and advancement in science, such as in the case of the so-called serious games, games for change or games with purpose. Digital games are not only played in the living rooms (PC and console games), but also in offices (gamified applications for business), public means of transport (on mobile phones and portable consoles), urban spaces (augmented reality mobile gaming), medical institutions (games for health), at schools and universities as part of curricula (educational and pedagogical games), or in museums as interactive installations. More recent phenomena, such as live streaming of online competitions and play sessions, watched by millions on the Twitch.tv platform, point to the fact that the pleasure derived from observing others play may be as amusing as playing itself.

Such diversity and indeterminateness of play, although in its analogue form, emerged as the subject of scholarly examination already a few decades ago. The cultural anthropologist Brian Sutton-Smith in his *opus magnum The Ambiguity of Play* (1997) extensively studied a variety of play forms that escape clear definitions and categorizations. At its core, play is ambivalent and vague in all its aspects – its references, intentions, sense, contradictions, and meaning (Sutton-Smith 1997: 2), also its liminality, expressing the transition between various states

(Turner 1969: viii, 177). Almost anything may be included within the sphere of play: playing with metaphors, watching television, being sexually intimate, joking, celebrating birthdays, and gossiping, amongst many other activities (Sutton-Smith 1997: 5). This diversity, as Sutton-Smith further discusses, applies not only to play forms and experiences but also to players (e.g. infants, children, adolescents, adults, male and female players, gamblers, elite sports players, playwrights, performers, comedians). How to make sense of games and play in such a diverse ecosystem? How to understand a phenomenon that has so many variations that it almost seems not what it is? Sutton-Smith proposes to solve this impossibility by analysing seven popular ideological rhetorics of play: play as progress, play as fate, play as power, play as identity, play as the imaginary, play as the rhetoric of the self, and play as frivolous (Sutton-Smith 1997: 9-11).

Ludification of Culture

In the past years the diversity and ubiquity of play have gained an intensified visibility in game and media studies. Researchers no longer focus solely on human actors and new perspectives on their playful activities or the appearance of new playful life domains, but also on the digital media and the role of non-human agents in this playful constellation. Numerous media theorists, game scholars, and designers have discussed the increasing presence and significance of games and play in the surrounding culture, in particular within the context of digitisation processes (Adamowsky 2000, De Mul et al. 2015, Deterding et al. 2011, Fuchs et al. 2014, McGonigal 2011, Raessens 2006, 2010, 2014, Rautzenberg 2015, Sicart 2014, Zimmerman 2009, 2013). This omnipresence and permeation of games and ludic logics in our everyday contexts has been referred to as *gamification* or *ludification*. At this point it is crucial to differentiate between the two concepts, as they are not synonymous.

Gamification may be perceived as a tool, which emphasises the usage of game design elements in non-game contexts (Deterding et al. 2011). It focuses on the mechanical and iterative capacity of ludic systems. Gamification relies on the adaptation of game mechanics to daily activities in order to influence the individual's behaviour and drive engagement (Gartner Inc. 2011, Radoff 2011, Zichermann & Linder 2013, Zichermann & Cunningham 2011). And the latter are believed to be brought about mainly by implementing the elements of challenge and competition. These require the winning condition, which in most cases translates to a system based on the allocation of points through creating possibilities of success, leader boards, badges, and social networking elements, which in turn lead to the

achievement of status. All of the above form the essence of gamification in its narrow sense of a competition-focused system, which turns otherwise tedious processes into attractive game-like activities. Also the rhetoric around gamification seems to be predominantly structured around accumulation and pointsification, whether in neutral, positive, or critical terms (Bogost 2011a, 2011b, Dragona 2014, Robertson 2010).

Ludification on the other hand is a broader concept, which analyses the surrounding culture and its daily manifestations through the lens of playfulness and games. In his studies on the *ludification of culture*, media and games theorist Joost Raessens discusses the playful nature of the digital medium itself, which encourages the emergence of new play forms (Raessens 2006, 2010, 2014). For instance, as he notices, mobile devices and mobile social platforms afford playful impulses, which manifest themselves in the experimental usage of written language, including the so-called ‘texting’ and ‘twittering’ (2010: 6). A similar ludic tendency may be observed with reference to the medium of television and its new possibility to participate playfully in watching the visual content through second screen applications. These allow the viewers to access additional content on their mobile devices and interact with others in real time. One of such applications mentioned by Raessens, *Heineken Star Player*, connects the Champions League fans and viewers via social platforms and encourages them to gamble on the outcome of the matches (2010: 8).

On the micro level, the above example may be treated as a concrete instance of gamification with the usage of badges, achievement scores, and other competitive game mechanics, implemented in order to make the TV programme more attractive to the audience. On the macro scale, however, the gradual change of everyday interaction patterns in the medium points to a much broader process of playful participation in cultural practices.

Also a playful usage of graphical software (such as Photoshop, amongst many others), its contribution to the modification of visual content, and resulting from it, spreading of ‘mash-ups’, ‘memes’, and ‘GIFs’ⁱⁱ are pointing to new forms of expression born in the digital sphere. *Ludification of culture* therefore epitomises a socio-cultural phenomenon, at the base of which lies play.

Ludification as a universal cultural phenomenon

Already Johan Huizinga emphasised that all the great archetypal activities of human society -

language, myths, and rituals – are permeated with play (Huizinga 1938/1992: 13), to which we may add harvesting, hunting, making war, and love. Games govern our lives, infiltrating all their aspects. A walk through the British Museum in London seems to be further confirming Huizinga’s hypothesis. There we may find 4.500 year-old board games, discovered by archaeologists during the excavations of the Royal Tombs of Ur in Mesopotamia (Becker 2008).ⁱⁱⁱ The fundamentality of playful behaviour (Tomasello 1999: 91) is further strengthened by the fact that it resides not only in the realm of mankind. A human being is most probably the only animal that has *logos*, but certainly – following Aristotle – not the only one that plays. Huizinga asserts boldly that playfulness is one of the fundamentals of civilisation, and within it the boundaries between humans and animals, or culture and nature are interweaving (1938/1992: 11).

There is no culture known to anthropologists, historians, or archaeologists, in which games have no presence (Bally 1966: 61, Mäyrä 2008: 37). An etymological excursion through the word ‘game’ itself seems to be supporting the above statement. The word ‘game’ of Proto-Germanic roots, means nothing more than ‘together’ (prefix *ga-*) and ‘men’ (stem *-mann*). Its second connotation points towards one of the oldest social practices, that of hunting. Here ‘game’ indicates wild animals caught in a collaborative pursuit. Taking into account this double sense of the origin of the English term leads us onto the trail of Old Stone Age cave paintings, which depict hunting scenes and game, going beyond its literal sense. In the illustration of the animals and hunting scenery, game and games are portrayed in the *ilinx* of the wild chase and the *mimicry* of nature, its play of light and shadow, forms and lines painted on the rock canvas, in which both performance and playfulness unfold in this fundamental human practice. What game signifies is a collective form of promoting togetherness and securing the survival of the group. Following the etymological trail, the archaeological findings, Hans Blumenberg’s reflections on the caves (Blumenberg 1979), and finally the words of the editors of *Understanding Video Games*, we are contributing to the presumption that “even our ancient cave-dwelling ancestors had rule-based systems of play” (Egenfeldt-Nielsen et al. 2013: 3).

Play as part of the workspace – case study

“If anything could be said to characterize new modes of work/play, it would be precisely this sort of interplay.”

(Casey O'Donnell 2014: 12)

Ludification of workspace in the digital era

Ludification of culture, as discussed above, is based upon the fundamental phenomenon of humanity. As a concept it has been gaining an increasing significance and presence in the past few years due to industrialisation and digitalisation. Nevertheless, the following question remains open – what has changed in the digital era other than the increase in the quantity and scale of playful (virtual) worlds, or the multiplication of interconnectedness amongst human and non-human actors? Following Huizinga, Sutton-Smith, and many other scholars, we have come to the conclusion that play has been always permeating numerous domains of our lives. They all, however, belong to the sphere of pastime - language, myths, and rituals (Huizinga 1938/1992: 13), or theatre, sexual intimacy, joking, gossiping, amongst others (Sutton-Smith 1997: 12). In the digital times, playfulness spreads thanks to quantified, networked, and interactive digital medium into other spheres, which until recently have been considered play-free zones, such as the workspace.

Today, the distinction between work and play gradually dissolves. This process may be observed on the example of *Attent*, an application tackling the problem of post management and information overload in corporate e-mail exchange. Its users have an imagined currency (Serios points) at their disposal that enables them to prioritise their outgoing and incoming e-mails by attaching virtual value to them. The design of *Attent* has been inspired by a discussion led at the Business Innovation Factory-7 Summit, during which researchers and business practitioners were wondering how to combine gaming with work, so that a boring e-mail box interface would incite a similar level of excitement to a *World of Warcraft* (2004) session.

The superposition of work and play is particularly visible when the workday reaches a complexity level at which it cannot be anything but playful, and a corporate work office transforms into a labyrinth of play areas (Stewart 2013). Ludification, it seems, is not a one-way road. For as much as playful elements enter the domains of work, work-related aspects permeate playgrounds. The relationship between work and play can neither be fully embraced by the concept of ludification, nor by its contrasting term, that of labourisation (the process of permeation of play with work elements; Dippel & Fizek 2015, 2016). Instead, it could be theorised as practice, in which work and play overlap and pervade each other.

In order to encompass this overlay, we are introducing the concept of *interference*, borrowing a term that originally was used in physics to denote the superposition of waves. Interference encompasses the impurity of play, and its ‘corrupted’ character, which manifests itself when the line dividing games from daily life is blurred (Caillois 1958/2001: 43). It allows us to describe the transformative dimension of otherwise contrasting phenomena. The metaphor of interference challenges strictly dualistic models, in which mechanical figures or anthropocentric interpretations describe diverse and impure social processes. In the situation of empirical fieldwork, the concept unfolds the horizons of understanding discursive complexities and the socio-cultural multidimensionality of the everyday. Within the model of interference, work and play appear as polar modalities of human interaction. On the one hand, they may be described separately from each other. On the other, they influence each other reciprocally and within the moment of hermeneutical analysis and empirical research may be observed in their overlaying condition (Dippel & Fizek 2015, 2016).

The differentiation between work and play appears already in Aristotle’s *Nicomachean Ethics* (1971). Both above qualities, according to Aristotle (1971), are required in order to achieve happiness and freedom. Gregory Bateson (1972), on the other hand, differentiates between play and combat, drawing from the animal kingdom. Here, playing is opposed to serious activities required for life sustainment or defence against danger. The very process of blurring the work-play and seriousness-playfulness lines is brought to attention in the last chapter of *Homo Ludens* (1938/1992: 200), where Huizinga discusses the loss of the purity of a frivolous playful experience and emphasizes the confusion of where play ends and non-play begins. To support his claim, he uses the example of professional sports, which systematises pure play and fills it with the principles of paid work. Huizingian distinction between play and work, and the portrayal of the latter as a productive and paid activity partially relates to a Marxist understanding of work ethic. For Karl Marx work is defined as a useful and productive activity that may be translated into the value of commodities produced (Marx 1887/2015 n.d.). At the same time, Marx departs from the Abrahamic definition of work as toil, which seems to have been placed on the human shoulders in the moment of the ancestral sin (The Bible, KJV, Genesis 3:19), and perceives work as a chance for the “individual’s self-realization”, an *a priori* act of utmost freedom, which encompasses happiness, even if throughout history mostly corrupted, self-alienated forms of work or “external forms of labour” have become visible (1858/1973: 611).

The interference between work and play is rather based on the contrasting understanding of work as self-alienating and play as self-fulfilling. As such it treats work as a term associated with drudgery and toil, pointing towards exertion of the body, and possibly originating from the 14th century notion of “tottering under a burden” (from Latin *labere*). Etymologically, labour seems to be connected with productivity, effort, hardship, and suffering, qualities through which it fundamentally differs from play.

In such dualisms Brian Sutton-Smith (1997) notices the rhetoric of frivolity, which carries in itself implicit work ethics, moving play into the domain of fun, non-seriousness, or nonsense. As a rule playing is often described as an activity, which happens out of joy and functional pleasure, combined with delight stemming from its objective character and outcome (Brockhaus 1957: 102). Games and play seem to be determined by their self-sufficiency and closely defined “magic circle”, which is creating a temporary world within the ordinary one (Huizinga 1938/1992: 10). They remain on the opposite end of self-alienating work understood as long as they are non-serious (Huizinga 1938/1992: 10), unproductive (Caillois 1958/2001: 10), joyous (Scheuerl 1979: 69), and utterly absorbing (Huizinga 1938/1992: 10), making the players lose themselves in the constellation of playful time and space. The magic element within the play experience points towards the very suspension of time, as if past and future did not exist. The time within play is defined and perceived as pastime, for the players need to be entirely captured by the game in order to play it. Pastime seems to synchronize permanence and simultaneity and enclose them within what the German pedagogue Hans Scheuerl (1979: 69) defines as presence and inner endlessness. The experience of being suspended in time and lost within the game has been also theorized from the perspectives of flow (Csikszentmihalyi 1990/2008) and immersion (Calleja 2011, Tekinbaş Salen & Zimmerman 2003).

The digital machine itself, being a work tool and a toy at the same time, unites those two seemingly mutually exclusive qualities. On the one hand, a computer is a digital calculator based on mathematical game theory (von Neumann 1928, von Neumann & Morgenstern 1944), performing work-related tasks; on the other, an entertainment centre used in free time. From its early years the computer has found itself entangled at the intersection between work and leisure-related playful activities. It served as a computing and simulating aid at governmental departments, universities, research, and cultural institutions. At the same time

that very same assemblage of hardware and software was used to program the first games. In 1961 a group of researchers at the Massachusetts Institute of Technology developed *Spacewar* (1961), a space combat simulation, in order to demonstrate the capacities of the computing machines to the public in a compelling way. Today, in the developed parts of the world, the most popular digital machines (personal computers, smartphones, or tablets) are an indispensable part of work and leisure.

Developer's Dilemma – Case study

The complexities of work and play and their mutual interdependencies and superpositions are the subject of a recent anthropological study, describing and analysing the collaborative work practices amongst videogame developers (O'Donnell 2014). The investigation is a result of ethnographic fieldwork among developers working in “AAA” studios in the United States and India. The material was collected in the years 2004-2008. The author performed participant observation, ran structured interviews, and additional after-work conversations with every game developer that was willing to share their perspectives. Observing this particular vocational group, Casey O'Donnell makes an attempt to understand what work has become in the current historical and cultural moment and:

“[...] how the creative collaborative practice of game developers and game development work sheds new conceptual light on our understanding of work, the organization of work, and the market forces that shape and are shaped by media industries in the new economy” (2014: 4).

The primary quality, which forms the basis of the author's fieldwork and which is crucial to the thesis formulated in this chapter, is the significance of play in workspace. Building upon T.L. Taylor (2006: 72-73), he refers to this playful labour or laborious play dimension as *work/play interplay*, and observes the overlaps on numerous levels, from the collaborative team work and the playful work conduct to the very arrangement of space in companies, where employees can climb, play volleyball, or lift weights. He refers to the latter as the *Googlefication* of the workplace.

What is also crucial in the understanding of this superposition of work and play is the fact that most developers studied by O'Donnell belong to the Nintendo Generation. As he further

emphasises, “[t]his sense of shared history and experience provides foundations for how videogame developers talk about their occupations” (2014: 26). They share a specific vernacular, which becomes their insider’s language through which they guard access to the metaphorical game of game development as the author states. “When you think and talk through/with games, they become aspects of the workplace” (2014: 42).

As idyllic as the above vision of labour may seem, O’Donnell emphasizes that the new modes of work practice, based on the blurred distinction between what is work and what is play, may as well dissolve into “destructive work practices” (2014: 31). For as much as such playful work scheme encourages people to think creatively, it also pushes them to invest more time into work, giving the videogame producers and publishers the possibility to extend the developer’s work week even to up to 80 hours.

This is possible due to the so-called instrumental work/play, which lies at the heart of the culture of gamers. This group draws particular importance to the “[...] act of working through the complex problems found in videogames. Any circumvention of this labour is often seen as a circumvention of the rules” (O’Donnell 2014: 61). In other words, the developers imposing their underlying gamer’s attitude upon their work practices, which become a riddle to be solved, a playful system to be cracked and understood. And for O’Donnell this deep exploration of the systems one works within lies at the core of instrumental work/play. The capability and the need to play seem to lie at the centre of a creative collaborative work practice (O’Donnell 2014: 5, 31).

However, the long and inhumane work hours of the developers lead to the collapse of desire altogether. At this point the work/play as O’Donnell (2014: 137) observes turns into AutoPlay – a concept describing the point where the aspects of work/play that fostered involvement and enjoyment (fun) in work practice, lead to disengagement, and workers/players cease to be desiring objects.

Ludification – new tendencies and further developments

“Let the games begin.”

The concept in (trans)formation

The meaning of play, games, and playing has been observed and reflected upon for centuries by many scholars with reference to numerous spheres of our lives.^{iv}

However, as we have presented above, the concept of ludification has entered the academic discourse relatively recently. It highlights the significance of renegotiation processes that have resulted from the rapid development of the digital play landscape, and influence the digital practices. Ludification itself is not able to fully embrace the permeation of play in once play-free domains of life and portray their reciprocal influence. In our understanding, this complex relationship may be more accurately approached with the concept of the *interference of work and play* (Dippel & Fizek 2015, 2016) or through the notion of *work[/play]* (Taylor 2006) and *work/play interplay* (O'Donnel 2014). This interrelation has been also pronounced and discussed in the recent collected volume *The Gameful World* (2015), devoted to ludification of various domains of life. Its editors propose to complement the concept of *ludification of culture* with that of the *cultivation of ludus*, which expresses the nature of changes games undergo while migrating to new, also non-leisure, territories. According to Deterding and Walz, not only games and play move towards the centre of our cultural, social, and economic existence, but also other realms of life impress their forms onto play (2015: 7). In order to avoid a strictly dualistic mode of thinking, the authors propose to unite the two concepts within the metaphor of the *gameful world*.

New fieldworks in cultural anthropology

New tendencies and developments of *ludification of culture* may be observed not only in the theoretical reflections about the concept itself but also in the empirical ethnographic studies of digital social spaces. Densely populated virtual worlds^v transform into perfect research fields and open up themes focused on players and gaming culture.

For instance, Mark Chen in his ethnography *Leet Noobs* (2011) takes under examination expert players and their 'raiding'^{vi} practices in *World of Warcraft*. Various aspects of digital games and social practices have been also scrutinised by ethnographer T.L. Taylor in her numerous works on the multiplayer gaming life (Taylor 2006), gender and sexuality in games (Taylor 2008), or the LAN party^{vii} scene (Taylor & Witkowski 2010). Kiri Miller, on the other hand, uses ethnographic methods to observe and theorise the experience of *Grand Theft Auto* series players (2008).

The cultural anthropologist Tom Boellstorff has performed online-fieldwork and dedicated his work in *Coming of Age in Second Life: An Anthropologist explores the virtually Human* (2008) to online residents of the virtual world Second Life and the way they approach gender, race, sex, money, conflict, and the interplay of self and group, amongst others, within the inhabited virtual space. In the collected volume *Ethnography and Virtual Worlds* (Boellstorff et al. 2012) together with other authors he focuses on the methodological approaches to the ethnographic study of the virtual. The possibilities of an ethnographic method have been also reflected with reference to the concepts of individualisation in text-based online worlds of Multi-User Dungeons (MUDs) (Isabella 2007).

The *ludification of culture* has also influenced cultural empirical research and hermeneutic interpretation, which focus not anymore solely on the residents of virtual worlds and the players' culture, but also on other spaces influenced by digitality and playfulness. The discussed ethnographic case study of Casey O'Donnell is one of such examples. Another representative study looks at how mobile locative interfaces influence our everyday interactions, trigger previously unknown forms of sociability, and change our experience of open public spaces. Adriana de Souza e Silva and Jordan Frith (2012, 2015) scrutinise location-based social networks and mobile applications such as *Foursquare* (2009), which use game elements to encourage people to compete with one another by checking into urban spaces marked on the map.

In his ethnographic study on the production of the game *America's Army* (2002-2009), Robertson Allen discusses the links between work and play, as well as war and entertainment in the United States (2014). He analyses the correlations between military interests in the market-based requirement for the amusement of masses, and the significance of war and war games as means of recruitment and training in the American Army.

Other forms of work and play interference are discussed within the context of the so called 'gold farming'^{viii} in Massively Multiplayer Online Role-Playing games (MMORPGs) such as *World of Warcraft* (Nakamura 2014) or professionalization of digital gaming on the e-sport stage (Taylor 2012).

Elements, logics, as well as mechanisms and dynamics of play may be also observed in the scientific everyday. In High-Energy Physics where the fundamental phenomena of nature are

studied in large collaborative teams, playful aspects of the research practice are particularly visible. During her on-going fieldwork at CERN (Centre Européen de la Recherche Nucléaire), Anne Dippel has been ‘praxeographically’ (Knecht 2012, 2013, Niewöhner, Sørensen & Beck 2012) collecting a plethora of data, which illustrate the ludification processes of the everyday work (Dippel 2014, 2015; Dippel & Fizek 2015). As she concludes, playful elements and ludified practices may be observed and detected in all work domains of the collaboration and in every experimental system. This assumption seems to be mirrored in an anecdotal statement by the physicist Harald Lesch, who summarised the success of the largest international research institution as follows: “How come CERN functions so well? Simply because they all play there” (Sternstunde Philosophie 2014). And the play is taken extremely seriously.

Empirical fieldwork, praxeography^{ix}, participant observations, interviews, and critical-hermeneutical analysis are all revealing approaches towards the study of the omnipresence of play and games in the digital age. New research perspectives with regards to human beings, their mutual co-existence and approaches to the surrounding world, as well as the influence of media on human behaviour, appear on the academic horizon.

As we have argued, today the logic of play permeates all the domains of life on an unparalleled scale, and feeds back into the everyday. Digitisation seems to go hand in hand with ludification, as digital mass media further encourage playful transformations of everyday practices. Also digital machines themselves may be perceived as play ensembles, with the interface thought of as a metaphor of a theatre (Laurel 1993). Rule-based systems of play are also moving into the workspace, just as originally none-playful practices such as working feed back into play spaces. In those superposition spots, new practices emerge, which until now have been separate, and form waves of the new floating through the surfaces of being, to express it with the words of the French philosopher Gaston Bachelard (2007: 175). The emerging digital practices are still young and underexplored fields of research. In the years to come we are about to witness further scholarly impulses and critical studies, preoccupied with the investigation of *ludified everyday cultures*, which may broaden our understanding and contribute to a more informed development of digitised societies.

Further resources

Wikis

Play4Science research project funded by the German Research Society (DFG), (<http://www.play4science.uni-muenchen.de/index.html>). It constitutes an informative example of the usage of game mechanics and logics in the collaborative research scenario.

The Higgs Boson Machine Challenge – the website includes project documentation of a scholarly online competition prepared by CERN as ludified means of outsourcing selected research tasks in High-Energy Physics (<https://higgsml.lal.in2p3.fr>).

Blogs and websites

Blog of an anthropologist and game scholar T.L. Taylor (<http://tltaylor.com/teaching/e-sports-and-pro-gaming-literature>) with resources, books, project descriptions, and case studies on anthropological research of various gaming cultures and digital domains.

Blog of the Gamification Lab (<http://projects.digital-cultures.net/gamification>) with an e-pub open access collected volume *Rethinking Gamification*, project descriptions, and further academic resources.

Online library of the Digital Games Research Association (www.digra.org) with open access articles focusing on the interdisciplinary game research, including cultural studies and cultural anthropology, amongst others.

A selection of international academic journals

Journal of Gaming and Virtual Worlds (<http://www.intellectbooks.co.uk/journals/view-Journal,id=164>)

Journal of Digital Culture & Society (<http://www.transcript-verlag.de/zeitschriften/digital-culture-und-society>)

Game Studies (www.gamestudies.org)

Theory, Culture and Society (<http://tcs.sagepub.com>)

Games and Culture (<http://gac.sagepub.com/content/1/1/29.abstract>)

(<http://www.intellectbooks.co.uk/journals/view-Journal,id=164>)

Eludamos. Journal of Computer Game Culture

(<http://www.eludamos.org/index.php/eludamos>)

Replay. The Polish Journal of Game Studies (<http://www.replay.uni.lodz.pl>)

Homo Ludens. The official journal of the Games Research Association of Poland
(<http://ptbg.org.pl/HomoLudens>)

WASD Bookazine für Gameskultur (<https://wasd-magazin.de/about>)

GAME. The Italian Journal of Game Studies (<http://www.gamejournal.it>)

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ⁱ In original: “Das gegenwärtige Jahrhundert konnte man in den Geschichtsbüchern nicht besser, als unter dem Titel: Das Freygeister-Journal und Spielsaeculum nennen” (Bernoulli 1769: 387).

ⁱⁱ ‘Mash-ups’, ‘memes’, and ‘GIFs’ (Graphics Interchange Format) are all playful forms of replicating, mimicking, blending, and animating, in this case, visual cultural content and then distributing and sharing it online.

ⁱⁱⁱ The oldest discovered board games are the Mancala games, the variations of which are still played in Africa and Asia today. The oldest version of Mancala games dates back to 7200 B.C. and was excavated not far away from Petra in Jordan (Beidha) (Murray 1952).

^{iv} The most prominent ones, amongst many others, are: Aristoteles, Gregory Bateson, Roger Caillois, Stewart Culin, Jacques Derrida, René Descartes, Eugen Fink, James Frazer, G.W.F. Fröbel, Erving Goffman, Johan Huizinga, Immanuel Kant, Moritz Lazarus, John Locke, Marcel Mauss, George Herbert Mead, Michel de Montaigne, John von Neumann, Blaise Pascal, Jean Piaget, Friedrich Schiller, Herbert Spencer, Brian Sutton-Smith, Edward Tylor, Ludwig Wittgenstein.

^v One of the most recognisable games, *World of Warcraft* (2004), in its peak had 12 million active players (Statista).

^{vi} ‘Raiding’ refers to play practices in Massively Multiplayer Online games, which are focused on organised team combat against other teams of players or on completing tasks which otherwise would be too difficult to accomplish alone or in a smaller group.

^{vii} A LAN party refers to a gathering of gamers, who establish a local area network (LAN) between their computers or consoles in order to play multiplayer games.

^{viii} ‘Gold farming’ is a term denoting the practice of playing in order to later sell virtual goods and in-game currency to other players for real money.

^{ix} A recent term introduced into and discussed within German anthropological discourse (Knecht 2012, 2013; Niewöhner, Sørensen & Beck 2012).