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Homo ludicus

The ubiquity of play and its roles in present society

In the last decades new technologies, the rearrangement of living and labour time and other less visible cultural factors have brought some significant historical modifications to the traditionally separated area of the ludic. New types of games have emerged and the threshold between play and reality has been redefined to include aspects of social life that seemed to be unrelated to playing activities.

PLAYING THE GAME

Firstly, in the area of ludic practices, of games that are played, new or previously marginalized models of play have surfaced. Their fast growth and astonishing pervasiveness helped transform the very idea of what a game is. A good example is the remarkable phenomenon of the so-called casual games, games that can be played on any smart phone and literally fill the empty spaces of contemporary living. It is sufficient to note that in little over five years, one of these games, *Angry Birds*, created by a small Finnish company, was downloaded over 500 million times all around the globe.

I have chosen not to mention the older and more studied phenomenon of video games, since this journal is specifically devoted to the enquiry of this media form. Let us just note that the video game industry is the fastest growing sector (9% every year, even in times of crisis such as this) within the cultural industry, its revenues (\$56 million in 2011) being exceeded only by those of the film industry.

It can also be said that a consistent part of the large amount of hours spent browsing the Internet in western countries is devoted to the use of social networking websites such as Facebook. This massive participation partly translates into proper ludic activities (as in the case of the mega-game *Farmville* or events such as flash mobs) while at times shows features that we can provisionally define as “semi-ludic”. In fact, the whole communication style used in social networking websites is based on an ironic and detached tone and on rules that seems to mimic those of a board game.

Another fast-growing phenomenon is that of theme parks, whose prototype is Disneyland, founded in 1955 as a conflation of fable and game. Walt Disney’s

biographer claims that when he had the idea for the park, his collaborators tried to dissuade him by arguing that no one would drive a long way to see where Mickey Mouse lived since everyone knew that Mickey Mouse did not exist. (Eliot, 1993, p. 98) This stance underlines the obviousness of the distinction between reality and fiction. Disney's winning intuition, though, was that his audience was developing a demand for threshold experiences, for areas of common life married to imagination, for shared ludic experiences where they could collectively play with mass culture mythologies.

At the same time, we have witnessed the wide diffusion of games that only recently reached a level of unforeseen popularity. I am referring here to the practice of surfing (born between the 1950s and the 1960s) and its more recent variants such as skateboarding or snowboarding: different forms of what Roger Caillois (2001) defined as games of vertigo or *ilinx*. These ludic behaviors were literally invented (although according to a vague tradition, surfing was already practiced by Hawaiians at the time of Captain Cook's expedition) and have quickly generated their own bodily techniques and mythologies that readily translated into metaphors. Some of the early theorists of the digital revolution of the 1990s resorted to surfing for their similitudes.

Finally, we cannot forget the transformations that well known forms of play underwent in the last decades by means of technological, social, and cultural shifts. Gambling, for example, grew exponentially. According to *Azzardopoli* (Poto, 2012), a study conducted by the Libera association and published in January 2012, in Italy in 2011 the total expense for gambling was over €85 billion, of which over €15 billion (a little under 20%) went into online gambling.

By combining these and other possible examples, we can describe a process in which ludic or semi-ludic forms of different origins (though increasingly web-based) "colonize" different areas of everyday living.

LUDIC METAPHORS AND APPLIED PLAY

The extension of playfulness beyond the area of played games also touches on another aspect that we can define as the game metaphor. Referring to a toy found across different cultures, Jurij Lotman wrote: "To understand the 'secret of the doll', we need to distinguish between the primary idea of the 'doll as toy' and the secondary, cultural idea of the 'doll as model'" (1980. Curator's translation). Such a secondary cultural function is today found in a growing number of games and toys that are used as metaphors and models. Think of the use of teddy bears that bestow a loving and moving aura upon improvised commemorative altars. Or the diffusion of sport-related metaphors such as the team metaphor used in a subtly authoritarian way ("if you don't do what we say, you are out!") in many companies.

Such richness in symbolic potential derives from the fact that play is the perfect situation-creating machine, both in the sense of building imaginary –

though consistent and regulated – universes, and in the sense of exploring and rewriting everyday experiences from an unexpected perspective. The exploratory and creative nature of play is often paired with its apparent harmlessness. Games and play can be used as metaphors, both rich and unobtrusive, and this feature is becoming a defining trait of our times.

If the expressive function of the game metaphor has a long history, there's a newer phenomenon to account for: that of the ludic attitude and proper games being invested with an operative function, used to simulate specific situations, to distribute roles, to elicit new forms of cooperation. In this case it seems appropriate to think of applied play. This might be another sign of the fact that we are exploring an unknown territory, a vast liminal space between pure play and serious life. This is one of the typical signs of a new ludic system, the habitat of the *homo ludicus*.

Applied play: listing the applications of games and play would be an enormous and incomplete endeavor. Examples would span from the playful attitude of erotic websites, where ludic tones are used to dampen and at the same time test explicit sexual communication, to the military sector. In a rather worrying article, William Langewiesche (2011) describes in depth the job of pilots of unmanned drones that remotely fly planes in Afghanistan from a secure location in New Mexico: killing people. Video games that represent war have become war themselves. Who is simulating what? And then there's the phenomenon of gamification: applying the features and often the rules of collective and institutionalized games to contingent situations. For example, within companies and organizations, games (board games used as formative tools or computer games applied to management techniques) allow employees to rehearse their roles before taking them or test projects before deploying them. This same dynamic is at work in scientific research.

The ludic attitude is progressively making its entrance into areas of common living where its presence would have been deemed as irreverent or misplaced until a few years ago, from mourning to war, from management to science. This phenomenon generates a paradigm of playfulness used to organize and think about various aspects of existence through a movement of *trespassing*. This seems to contradict one of the defining features of human play: that of being situated within a frame that separates it from what is real, serious, tangible. *Play*, according to Caillois (2001) “is essentially a separate occupation, carefully isolated from the rest of life (. . .). [The] game's domain is therefore a restricted, closed, protected universe: a pure space” (pp. 6-7). The formation of an area between the ludic and the real erases this closure, these protections, and allows a constant dialogue between the ludic and the “serious”. This is one of the defining traits of online communication: the levels of communication and metacommunication are not only constantly interwoven, but reciprocally provide meaning, framing each other. The amount and nature of the transitions

between openly playful and more ‘serious’ situations describes a wide gray area, a liminal zone between proper play and real life.

The progressive substitution of games with playfulness, of the *ludens* with the *ludicus*, the “de-framing” (as opposed to en-framing) of game and its re-framing within different and partly arbitrary borders are found in many aspects of everyday life.

WHAT GAMES ARE WE PLAYING?

Among the trends of our society, which ones could help us explain this *new ludic system*?

The first hint comes from the cornerstone author for the discourse on games and play in the last sixty years: Roger Caillois. His four-headed theoretical model is well known: on one side stand competition (*agon*) and gambling (*alea*), games with non-negotiable rules. On the other, those games whose rules are less rigid and explicit: the imitation or disguise (*mimicry*) and the game of vertigo (*ilinx*), where the player firstly puts their balance and bearing at risk and derives pleasure from keeping them, and secondly aims – at least temporarily – at losing themselves, only to find themselves again. Discussing regulated and unregulated games, Vygotsky (1994) claims that while older children’s and adult’s games have explicit rules and hidden imaginary scenarios (think of war-like competitive team games), younger children’s games contain explicit imaginary scenarios and hidden rules.

Caillois’ assumption is that every society employs all four models of play, but only the first two are ingrained into an adult, modern ludic disposition, arising – with great differences throughout different societies – in the last two centuries. Vertigo and imitation are often deemed as child’s play, indign of adults. Nevertheless, these ludic forms are revamped in the space of vertigo of the funhouse, where adults can act like children.

Is it only a reviviscence? Some signs tell us that we are witnessing a significant historical mutation, comparable to that of the advent of the industrialized world. At that time, the most “anarchic” forms of play (the ritual of disguise during the carnival, organized forms of trance and vertigo, etc.) became marginalized, made unacceptable for adults and confined to the magma of child’s play. In the last decades, these seem to find acceptance also among adolescents and adults. This resurfacing is one of the traits that define the new ludic system.

In this sense, the diffusion of surfing and games that are derived from it (in particular skateboarding, with its urban subculture often looked upon with suspicion by adults and authorities) highlights a new trend towards games that defy vertigo and require specific bodily techniques to maintain balance in challenging situations. More extreme forms of games of *ilinx* can be ascribed to the same trend. Bungee jumping, white water rafting, high diving and other practices are niche activities, but have gained a symbolic value for a large number of followers. This is evident in their massive presence on the Internet and in the media.

Most of these followers are male, but a growing number of females are joining the ranks. Another interesting phenomenon is that of the consumption of spectacle. The experience of viewing has been characterized for a long time by a rigid division of labour: on one side the professionals that appear on the scene in disguise, wearing their costumes and make up, acting in the role of someone other than themselves. On the other, the audience, in more or less normal attire, follows the story represented on stage or screen and processes it inwardly.

With the phenomenon of cult a new and eminently ludic form of aesthetic enjoyment was born. The viewer or listener symbolically “wears” the object of love and admiration. They build a provisional identity around it and craft a role – or is it a proper mask? – within an uninterrupted role play.

One of the defining moments of the emergence of this new aesthetic taste is the transformation of a film screening into a carnival where the wall separating the audience and the actors in their costumes is banished. This is the case with the late night screenings of *The Rocky Horror Picture Show* in 1970s California, where an audience in drag started a dialogue with the characters on screen, anticipating or modifying their lines. The choice of the movie, though partly trivial, was certainly not random. The ludicization of the show was married to the explicitation of a spectacularized transgender sexuality. This encounter signals one of the moments of convergence between the path of 20th century sexualization – which was then in its liberation phase – and the emergence of playful practices. There remains a question to be answered: why? What are the causes of this mutation in the order and dynamics of institutionalized and recognizable models of play?

The most plausible answer is that in the previous phase of the ludic paradigm, that of the period of industrialization, the division between labour and play, between the *homo economicus* and the *homo ludens* required, at least for adults, a rigorous definition of playful behaviors and their confinement in a defined and stable space-time, so as to exorcise at least in part the anarchic component of play. The confinement of unregulated forms of play to childhood has for centuries served the function of splitting human play in half.

Today, the fall of the rigid division between the space-time of labour and that of play is both an essential premise of the new ludic system and a consequence of its preeminence. This leads to a second process: the delegitimation of the barrier between the games that are acceptable for adults and those that are not. The former phenomenon lead to the formation of a vast area of semi-ludic behaviors, while because of the latter, play as adaptive resource and play as unsolvable paradox tend to overlap. Both phenomena help shape the new character of the homo ludicus.

PLAYING WITH MACHINES

We should not forget that another defining aspect of new ludic system is that it does not solely involve humans. Analyzing the diffusion of playful practices

and game related metaphors, we often seem to forget a significant phenomenon that Bruno Latour (1992) helped us understand. Our society is not composed solely of humans but of humans and machines, with a growing population of thinking machines. The new ludic system is also a way of adapting to this environment and to its challenges; in fact this is one of the assumptions of human-machine interaction.

The evolution of computer science has proved that computers can be playing machines rather than calculating devices. My evidence here is not only the symbolic relevance of a typically ludic test, the well known game of chess won by IBM's Deep Blue against world champion Garry Kasparov in 1997, that media (but not Kasparov!) interpreted as a proof of artificial intelligence having exceeded human intelligence. That game of chess was but the outcome of a long process: the auroral phase of computer science had been characterized by the constant testing of the human-machine relationship through increasingly complex ludic challenges. Some of these experiments bore computer games as collateral result.

Machines were not playing, though. Machines don't play by themselves. Ludic tests performed on computers verified machines' functionality, but for humans constituted an exploratory activity into unknown ground. What does it mean to have a machine as play mate? An excerpt from Giambattista Vico's *Scienza nuova* (1977) seems fitting: "it is typical of children to handle inanimate things and, while playing, talk to them as if they were alive; [in this way, according to Vico, they act as poets, for] the most sublime task of poetry is to give meaning and passion to meaningless things" (pp. 262-264. Curator's translation). In the frame of play it can be normal to have a dialogue with things, and through imagination – the common ground between play and poetry – it is possible to give *sensu e passione* to objects such as computers.

Through what we call new ludic system we are learning to accept and explore the reality of a society made of humans and machines that hasn't been understood by common sense yet; machines that pretend and ask us to pretend. The new ludic system would not exist without thinking machines, to which we owe a great variety of playful practices, from video games to casual games, to those peculiar games that are social networking websites. On the other hand, using these thinking machines the way we have grown accustomed to would not be possible without the new ludic system. Through it we are afforded the practices and basic metaphors we use to confront machines with which we build a reciprocal relationship (we interact). It provides us with models we can use to configure apparatuses whose complexity is steadily growing. Metacommunication in this case consists of "let's pretend you are a mind that works like mine and that my mind looks like you".

FROM MANY TO MANY

Behaviors that merge real play and interpersonal relations are particularly common on the Internet. This gray area has overcome the almost absolute separation between the two that used to exist. The Internet is not the only habitat of the homo ludicus, but certainly constitutes a very welcoming environment. Why?

Technical advancements in communication during the industrial era were focused on one-to-many communication or, more specifically, from one broadcaster to a mass of receivers. Newspapers, cinema and, later, television are good examples of this dynamic. In the same period, one-to-one communication was also pursued with the invention of the telegraph and the telephone, up to the era of the mobile telephone. The Internet has enhanced both types of communication (think of online journalism and e-mail), but also laid the foundations for another model: many-to-many communication. In this model a variety of subjects are on the scene at the same time as issuers and receivers. The main ancestor of this kind of communication can be found in rare and peculiar forms of face-to-face communication: specific public ceremonies on the one hand, festivities on the other. This last case is in itself close to the ludic world, especially in its manifestations that, with Mikhail Bakhtin, we can call the carnivalesque (1984).

Social networking websites allow a lasting communication from many to many, a dialogue that can alternate between ludic, informative and affective tones. This exchange is simultaneously stimulating – for it promises unexpected encounters – and reassuring, since it guarantees a peer status to all its users. An exchange like this can be both festive and serious.

In an earlier paragraph I introduced the notion that social networking websites present some features that link them to board games: they are platforms that allow users to aggregate on a voluntary basis and ask them to accept common rules without any institutional authority enforcing them. They are, to their participants, shared worlds. The history of these websites is made of successes and unforeseeable flops, partly explained by management mistakes or perhaps luck, but mostly linked to an aspect that once again refers to the ludic world: the metaphor they use. Facebook took as a model, as guide-metaphor, school friendships and the yearbook, with its constellation of names and faces of old schoolmates. LinkedIn is modeled after work meetings and the business card or curriculum vitae model. Second Life, an unforeseen flop in this area, was conceived as a virtual space, with avatars representing the participants and with a visually complex world. It is likely that the success of Facebook is due both to a simple and captivating metaphor and to its more informal, less committing, nature. In this case, the distinctions between the ludic and the ordinary are being exceeded by the vast area of the semi-ludic, where a playful model (voluntary, regulated, shared) acts as a ground for non-ludic social relationships.

WHAT IS THE PURPOSE OF PLAYING?

We should always keep in mind that by definition play has no purpose. In this sense, analysing the rise of the ludic paradigm in our time by reducing play to a series of principles that can be used in different situations means denying what play is and refusing to confront it. This is instead what we have to do, because the new ludic system could not be conceived without the anarchic component of human play; it could not be conceived if we discard what is unique to human play: homo ludicus is asking us to consider the homo ludens.

Through the contribution of Jerome Bruner (1972), in the 20th century we understood that play, a peculiar activity of the human being, is essential to the process of evolution, but denotes a model of evolution that is different from that of the other species. Play is born out of the incompleteness of humanity, out of us being “The animal not yet properly adapted to his environment” (Nietzsche, 1907, p. 82). The ludic paradigm plays with this incompleteness, at the same time integrating and exalting it. Play allows us to explore the world only if we are able to invent it, and vice versa.

Here is found the unyielding duplicity of play, its capacity to offer itself as inexhaustible resource and, at the same time, its paradoxical nature. If play is one of our most precious assets, this derives from the fact that it is an almost indefinable faculty, whose logic (or un-logic) is completely different from the ordinary logic. If the paradoxical nature of play does not weaken its richness it is because, in a peculiar way, the ludic experience becomes, as it is lived, an essential part of our growth, even as adults. We will be able to count on it even in the most challenging situations. Or maybe, especially in the most challenging situations.

RESOURCE

Caillois (2001) wrote that play is a “primordial resource” (p. 11) for every culture. But we must add, it is the same for every single individual. Play generates a background (of accumulated experience and available imagination) that plants roots in the subject from their early life and keeps living with them, a resource for culture, but most importantly for evolution. We only have partial control over it, since it is not buried and repressed as the Freudian unconscious, but at the same time is not a part of our structured knowledge. It is a resource that spontaneously resurfaces, often unforeseen, and can be used only by those who don't apply it to a purpose. This is what makes the ludic experiences of childhood ever-living ones. Here is found the wisdom of Cervantes' phrase “we should never let go the hand of the child that we once were” (cited in Witkowski, 2011, p. 85. Curator's translation).

The child we once were keeps teaching us how to defy vertigo, whether it is born of keeping balance on a wooden board, facing the sea, or being stuck in urban traffic. That same child teaches us the pleasure of simulation and the subtle but strategic distinction between simulation and lie. At the same time, that child teaches us that there is nothing more serious in an unserious activity,

since no rule is more sacred than the one of the game that we voluntarily accepted. Other teachings that come from play and elude Caillois' taxonomy can be found in building and disassembling, hiding and finding (ourselves), and the peculiar play that revolves around the metamessage "this is not play". Finally, some teachings are derived from the games that we learned as adults, from chess to poker to volleyball. These should not be considered as sources of structured abilities or knowledge, but recognized as experimentation that reemerges from our experience in behavior and imagination, ongoing explorations.

Play as a resource becomes increasingly more precious when we face situations that require unplanned adaptations, especially if this adaptation concerns the very evolution: these extremely mutable environments force us to use imagination. This is even more true in our contemporary world, where constant change is the most evident feature of living. But beware: play as a resource is not properly at hand, since it is not a toolbox. It is a resource that is presented to us when we live and act, often in an adventitious fashion, together with its close associate: imagination.

Play is adaptation, but not only to the environment in which we live, but following the intuition of G. H. Mead, it is also adaptation to an environment that is not there (2001); one of its typical features is that it is connected to a specific here and now but can transcend it, escaping the bounds of the real and inventing alternative worlds better than any other human activity. This conflation of fantasy and adaptation weakens the interpretations of play as escape from reality. It is certainly typical of play to take a distance from everyday living to create fantastic situations, but at the same time it is in its nature to act the opposite way: taking us back to real life through uncommon paths.

Lev Vygotsky reports a fascinating case of two girls playing at "being sisters" (1978, p. 94), their only rule being to behave in the most similar way, separating their world from the outside, building a stereotyped world based on the perfect simulation of sisterhood. Only... they were sisters. They were "playing at reality", comments Vygotsky's, highlighting the constant dialogue between play and experience.

Another charming episode is reported by G.K. Chesterton: "I remember a Battersea little girl who wheeled her large baby sister stuffed into a doll's perambulator. When questioned on this course of conduct, she replied: 'I haven't got a dolly and baby is pretending to be my dolly'" (1910, p. 178). A deep interpretation of this passage invites us to ask ourselves what the doll stands for, since it is the imitation par excellence of the human body, the first nucleus of a second world built by child's imagination; a *second world*, a duplicate. Then, we read Chesterton's anecdote and realize once more that simulation is not a one-way street; it can lead from life to its double, and back. Simulation can both duplicate and invent its own universe, a real universe.

PARADOX

Play-as-resource cannot be separated from the other side of the ludic activity: play-as-paradox. The possibility for play to emerge from our everyday living, suggesting behaviors and giving meaning to what we are living, its nature of situation-creating and world-generating machine, its applicability to different non-ludic systems, all derive from its anarchic nature when compared to the ordinary logic. This is also a matrix for paradoxes. I am going to discuss some of them.

Play is and needs to be free, but it regulates itself through binds that we define as rules in structured play, but that are present also in more free form play. From children waving their arms around to the games of vertigo of the adolescents.

Play is eminently defined by the fact that “it is not for real” by metacommunication that separates the ludic from the real, not necessarily in the terms of the true/false opposition, but in those of real/not real. On the other hand, nothing is more real than play to a children playing, and the same goes for adults committed to structured games.

Play is discovery and invention at the same time; its explorative nature is not born out of an investigative activity, but of a creative one. According to Vygotsky and Luria (1994), the child does not discover the names of objects, but through play she finds “new ways of dealing with them – and that is what gives them names”, so adaptation is obtained through imagination rather than adhesion.

Play highlights the physical presence of objects and at the same time can do without them. A child playing can be amazed at the beauty of a toy – a brightly colored prop sword – but is perfectly capable to dispose of it and start a duel with a stick or, if even that is not available, their own arm. In the same way, a stage director can work with elaborate scenes or amaze the audience with an almost empty scene.

Play is based on a regularity that implies repetition; few traditions are more stable than those based on play. The fascination of children for repetition is a ludic mechanism in itself, and allows them to be amazed at fables told over and over with the exact same words. At the same time, according to Isaac Babel (2002), “[Children] shudder at the smell that new things give off, like dogs at the scent of a rabbit, and experience a madness, which later, when one is adult., is called inspiration” (p. 605–606). There are few experiences that allow for novelty to be metabolized in the way play does.

According to Caillois (2001), play is entangled in mystery, its deep essence cannot be grasped, but “is nearly always spectacular or ostentatious. Without doubt, secrecy, mystery, and even travesty can be transformed into play activity, but it must be immediately pointed out that this transformation is necessarily to the detriment of the secret and mysterious, which play exposes, publishes and somehow *expends*” (p. 4). To Caillois, who has certainly absorbed some concepts from his friend Bataille (1992), play makes mystery into a value that should not be preserved, but used. From this we can infer that play becomes

wealth if one is prepared for maximum *expense*, if one can avoid greed. This is also true of gambling.

And finally, I will say this again: play is *necessary*, it is an aspect of the adaptation process that makes the child properly human; but it is really a game only if it is *unnecessary*.

In human play, the adaptive potential is bound to the ability to derealize oneself. Adaptation only occurs through the *invention* of a world and derealization is essential to give meaning to the real. If we don't consider this, we might give a reductive explanation to the current expansion of the ludic system. Games are not techniques, even when they make use of sophisticated machines; they are ways to give meaning to techniques, to re-invent them beyond their first invention. Games are not tools and if they are a part of human adaptation it is because their contradictory nature makes them more flexible than any other human activity, with the possible exception of imagination, a close relative of play.

APPLIED PARADOXES, PARADOXICAL CONSEQUENCES

The anarchic and paradoxical nature of play is an essential part of what I have defined as the new ludic system. In many ways it constitutes its deepest foundation. Even “applied” play, if it aims at exploiting the real potential of play instead of limiting itself to a superficial analogy, consists into bringing the complexity of the playing activity into real life.

Let us consider the presence of teddy bears, balloons and other toys in a growing number of funeral rites or in what American culture defines as make-shift rituals. It seems that their purpose is to conciliate the unconciliable – rituals and informality – while communicating a message of authenticity. They are transitional toys in the sense of the word proposed by Winnicott (1971) (the teddy bear is coupled with the separation from the mother) or at the very least toys that bridge two worlds, like balloons that fly out of the hands of children, symbolically marrying the heaven and the earth. They symbolize separation and at the same time help accepting it.

They carry a metacommunication whose meaning is not “this is not for real”, but “I am putting myself into play, differently from what I would do in a formal and unauthentic ritual such as a funeral”. Still another paradox, since mourning and play seemed to be two unconciliable worlds. This is often reversed into an icky ceremony (think of applauses, inspired by TV rather than games, that welcome coffins); informality can become no less repetitive than traditional sternness, only without solemnity. Nevertheless, this seems to be one of the few effective ways to deal with a collective and personal emotion, where mass participation (the souvenirs left by thousands of people after Princess Diana's death are one of the points of origin of these new rituals) does not oppress the subject, but grants her a space hardly found in other expressive forms: a funeral from-many-to-many.

Let us shift to the casual game *Angry Birds*, where a flock of birds are shot through a sling towards an army of green pigs in increasingly difficult levels. The interest of the company that produced the game is not in selling it – in fact, it is free – but in the fact that exasperated players often buy (using real money) their way to the next level. The idiocy of the situation is not extraneous to the success of the game; in fact, it is a defining part of it. It creates a frame, a metacommunication that the player engages with herself and with anyone watching them: “it is just a silly game”. This apparently makes the bubble in which they are immersed less dangerously autistic and facilitates the possibility of playing the game in short bursts, something typical of casual games. The result is that one of the most popular cultural products on the planet is a surreally idiotic challenge.

The role of play and games in war technologies – such as those described by Langewiesche – is even more surprising. On the war front there are weapons without soldiers; on the other side of the world, there exist soldiers that “play” and kill. The instrumental function for which the techniques and language of video games are employed is evident: controlling the theater of war is made easier through a clarity that would not be possible in reality, where the confusion (both of the mind and of the senses), fear and emotion of real combat are inevitable. But if we stopped at this instrumental aspect we would have missed the most important evidence. What kind of soldier is this soldier ludens? He is a war professional in a culture that cannot make violence acceptable. The paradox of play frames the very nature of the military action: is it a game that has devastating effects or is it war turned into a game? Is this the first non-violent soldier of human history? The most peculiar effect is that this is for sure a bureaucrat-soldier. Langewiesche (2011) reports that “to shoot a missile, for instance, the pilot has to navigate through an unending sequence of menus and click the mouse more than seventeen times. Other menu control switches and systems and even to actually fly a keyboard is used”. And when the action is over, the soldier needs to “fill a large amount of forms”. Goodbye play.

Resource and paradox. The rise of the homo ludicus is happening in a fragmentary, complex and contradictory way. One of the tasks at hand is perhaps that of going beyond the brilliant intuitions of Mead, Vygotsky, Piaget, Bruner, Bateson and Caillois. In a book that still today provides astonishing arguments, the young and invaluable thinker of the 18th century Novalis asks whether beside logic we should build a *fantastic*. This would be an anti-scientific science explaining the processes of imagination and invention like logic possesses those of rational thinking. One of the most urgent scientific goals of this century is to build a ludic, a way of thinking about play that could provide the foundations of the *fantastic*.

(The translation of this article was curated by Riccardo Fassone and Adam Gallimore)

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