

Homo Ludens Reloaded: The Ethics of Play in the Information Age

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Abstract

This chapter proposes an understanding of the concept of *homo ludens* from a Philosophy of Information perspective. This chapter argues that players are moral agents who create worlds by playing. The creation of these worlds through play is analogous to what Huizinga described as a ludic drive. Therefore, this chapter proposes a perspective for studying the ethics of play through the lens of *homo ludens*-as-*homo poieticus*. The goal of this chapter is to suggest a constructivist ethics approach to the different play activities that have a role in shaping the cultures of the Information Age.

Keywords

Virtue ethics • Constructivist ethics • Philosophy of information • Videogames • *Homo ludens* • *Homo poieticus*

1 Introduction

We live in the Information Age. Around us, our lives are processed, quantified, facilitated and complicated by myriads of computational processes, shaping new forms of computational culture. The Philosophy of Information (PI henceforth) describes how the information revolution has changed the world: "There are some people around the world who are already living hyperhistorically, in societies

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and environments where ICTs and their data-processing capabilities are not just important but essential conditions for the maintenance and any further development of societal welfare, personal well-being, and overall flourishing." (Floridi 2014, Kindle loc. 252–254).

In this article, I inquire into the ethical role of *homo ludens* (Huizinga 1992 [1938]) in the context of the Information Age. To do so, I will propose to consider the *homo ludens* as an instantiation of a broader conceptual category of ethical agency proposed by Floridi (2013, pp. 161–179): the *homo poieticus*. *Homo poieticus* is a creative, moral agent who inhabits the infosphere, an environment "constituted by the totality of information entities, including all agents – processes, their properties and mutual relations" (Floridi 1999). Describing the Huizingan ludic drive, the role of play in shaping culture, through the lens of *homo ludens*-as-*homo poieticus* can contribute to the formulation of new ethical challenges that emerge when playing in the Information Age. The goal of this article is to suggest a constructivist ethics approach to the activity of play.

To achieve this goal, I establish a relation between play and Floridi's concept of re-ontologization (Floridi 2013, pp. 6–8). This allows me to connect the concepts of *homo ludens* and *homo poieticus*, arguing that playing is creating a world in a process of re-ontologization that is analogous to the processes that computers perform in the world. These two arguments provide a foundation for a constructivist ethics of play in the Information Age, and it allows us to think through new ethical challenges in digital play.

2 Play and Re-Ontologization

If we want to understand the concept of *homo ludens*, we need to start from the concept of play. Since play defies formal definition (Sutton-Smith 1997), I will limit myself to providing an instrumental definition of play that allows me to engage with the ethics of *homo ludens* in hyperhistorical societes. This instrumental definition is phenomenological in nature since my interest lies in the *playful experience of computational technologies*.

Accordingly, play can be defined as a way of organizing our experience of the world:

"Summing up the formal characteristics of play we might call it a free activity standing quite consciously outside "ordinary" life as being "not serious", but at the same time absorbing the player intensely and utterly. It is an activity connected with no material interest, and no profit can be gained by it. It proceeds within its own proper boundaries of time and space according to fixed rules and in an

orderly manner. It promotes the formation of social groupings that tend to surround themselves with secrecy and to stress their difference from the common world by disguise or other means." (Huizinga 1992, p. 13). In my own theory of play, I propose that play is a mode of being in the world that structures both reality and agency: "To play is to be in the world. Playing is a form of understanding what surrounds us and who we are, and a way of engaging with others. Play is a mode of being human." (Sicart 2014, p. 1).

Play's structuring of reality and agency creates worlds that have their own purpose and seriousness (Henricks 2016). These are the encapsulated worlds of dollhouses and *The Sims*, of the beauty of a ball bouncing off a wall, of the pleasure of skateboarding downhill, of making Amazon's voice-controller Artificial Intelligence assistant Alexa tell a joke. The worlds created by play are not worlds of productivity, defined by their end goals and results. The worlds of play have meaning on and of their own. Play is ultimately a free activity we voluntarily engage with (Caillois 2001 [1958]; Bogost 2016), an activity that is separate from the world.

Games offer us good example of how play structures the world: The rules of a game like basketball tells us what to do, what not to do, and for how long we should do it. They also tell us what success means, and structure the social encounter (Goffman 1961) by dividing players into teams with relatively clear roles. But those are only the written rules of basketball. The pick-up games I play at my local court have slightly different rules, written and enforced by a community of players. For example, whoever scores keeps possession, which is the absolute opposite of the official rules of basketball. Rules are not inflexible procedures we need to follow but instructions that, when followed and voluntarily accepted, help define frames within which actions take place and have meaning. Rules are the negotiable boundaries of the temporary play-worlds.

The following section provides a closer look at this process of world creation from the perspective of Information Ethics and the Philosophy of Information. Floridi argues that one of the unique capabilities of information technologies is their capacity to re-ontologize: "[R]e-ontologizing [...] refer[s] to a very radical form of re-engineering, one that not only designs, constructs, or structures a system [...] anew, but one that also fundamentally transforms its intrinsic nature, that is, its ontology or essence" (Floridi 2013, p. 6). For example, for those who use step trackers like Fitbit, a human step is not just a step; it is whatever can be calculated by their portable computer as a step. The human step has been re-ontologized, its nature redefined so it can become computable. That process of representation is similar to a process of creating a world: "[C]omputational model-building proceeds through the application of a repertoire of schemata, each

of which joins a metaphor to a bit of mathematics that can be realized on a computer" (Agre 1997, p. 38).

A similar process takes place when we play: We re-ontologize the world so we can give it a different meaning than the conventional one. This new play-world is open for expression, for pleasure, and for interrogation: "[...][P]lay is a rebellion against the forms and forces of the world. Players confront and challenge 'claims' coming from their own bodies, the environment, the social world, and culture. In those confrontations, they try to manage behavior their way." (Henricks 2016, location 1451–1453). Playing is re-ontologizing the world with the purpose of appropriating it for expressive, personal reasons.

For example, imagine being in a park on a Sunday with some friends. A person may be carrying a ball. The very act of carrying a ball allows them to see the park in a different way. But they can be bolder. They can gather four backpacks and place them on the grass, apart from each other, creating makeshift goals. They can drop the ball to the ground, and start playing soccer. They have just created a world, with the help of some props and the rules of a game. Let's compare this with the vast expanses of a digital playground like *Minecraft* (Mojang 2011). Walking around in that world, collecting resources, building things—in other words: playing—constitutes the act of inhabiting a world created with the very logic of play at heart. Minecraft does not make any cultural sense whatsoever unless it is contemplated as a place for playful being and expression, a world created for us to play in. In that world, like in the park, we can conceive of different games to play, we can use the environment like a prop to structure our activity. Rules emerge from the context and our intentions and, critically, what the software allows us to do and what we can get the software to do, by playfully exploring its boundaries, like countless Minecraft users have done, looking for ways to create previously thought impossible contraptions.

The capacity that play has to create worlds can be described as analogous to the capacity that computers have to re-ontologize the world. For computers to be able to act in the world, they need to be given a representation of the world in which they are deployed. And once they start acting in that world, they change it by their mere presence, they *re-ontologize* the world. Play creates worlds so we can experience them through a ludic lens, and those worlds are defined by their ludic purposes. In short: Both play and computation create worlds.

In computers, humans recognize re-ontologizing capacities and consequently engage with them through the lens of another re-ontologizing process: play. In other words, we see computers as *playful* machines because we can see how they can create worlds. Play acts as a mode of making use of the re-ontologizing capacities of this technology. It is the relatedness of these two re-ontologization

processes that makes the Information Age so attuned to the idea of playfulness. At the core of the Information Age, there is a *homo ludens* impulse to create worlds.

3 Ethics and Play Theory

The analysis of the ethics of *homo ludens* has been largely influenced by Huizinga's insistence on situating play outside the domain of morality: "Play lies outside the antithesis of wisdom and folly, and equally outside those of truth and falsehood, good and evil" (Huizinga 1992, p. 6). For Huizinga, it is important to keep the integrity of the experience of play as a separated activity, even if that means creating an uneasy contradiction with the broader argument that play creates culture.

Moral philosophers and play scholars (Dodig-Crnkovic and Larsson 2005; Henricks 2009) have addressed Huizinga's original argument, allowing for the understanding of play as an activity within the domain of ethics. But the question is still problematic: If play is outside morality, is *homo ludens* a moral agent? And if play is outside ethics, what is the moral value and status of the culture it produces?

I want to address these questions by situating the origin of the problem in Huizinga's argument that play is a disinterested activity that produces nothing quantifiable and that is separate from real life. Huizinga's definition of play allows us to observe how culture, in the form of the order prescribed by play, can emerge from that separateness.

Sports philosophers have addressed the separateness of play and its autotelic nature as the central issues for the ethical analysis of play (Feezell 2006): The activity of play is separated from real life, but at the same time, *playing* can be a way of practicing virtues that have an impact on the moral development of human beings. From a classic virtue-ethics perspective, the values that are practiced while playing contribute to the development of our moral being, an argument resonant with Piaget's constructivist theory (1997). This is what Brian Sutton-Smith (1997) defined as the rhetoric of play as progress play as a way of practicing and developing knowledge and skills.

However, this approach has a limited scope. While the arguments work well when it comes to sports, which since ancient Greece have been considered morally positive social encounters (D'Angour 2013), they might not be appropriate for all the other manifestations of play that lack sports' sociocultural recognition. I suggest expanding the sports virtue-ethics approach by a reconsideration of play

and its relationship to the moral nature of *homo ludens*. This necessitates the reassessment of the very concept of play as separate from other activities.

A plausible interpretation of Huizinga's motives to remain so adamant about considering play ontologically separated from real life can be traced to the philosophical origins of his work. Huizinga's understanding of structured, ordered play as a source of culture draws on the Enlightenment project, particularly Schiller's interpretation of Kant. Schiller's *On the Aesthetic Education of Man* (1794 [2012]) provides a classic evaluation of the importance of play: "(...) [I]n every condition of humanity it is precisely play, and play alone, that makes man complete" (p. 79). *Homo ludens* is an exploration of this idea: If play is what makes man a man, how is it manifested in culture? Or, how can we see culture itself as a manifestation of that play drive?

Schiller references Kant (Kant 1790 [2001]; see also Laxton 2011), whose deeper analysis would exceed the scope of this paper. It should be noted, however, that play is related to Kantian esthetics by its nature as a non-productive experience that takes place in the experience of the sublime (Mallaband 2002). This *play* is a detached activity outside of the domain of productivity.

For Huizinga, at the heart of modernity, there is a ludic drive based on the esthetic engagement with the world. Therefore, play ceases to be play when it is instrumentalized, which he defines as "false play". To commodify the ludic, to transform it into a mere economic transaction or an expression of political ideas, is perverting play and its function in culture. Play creates culture as a function of its disinterestedness, as a result of its (Kantian) esthetic engagement with the world.

This argument complicates the moral position of the concept of *homo ludens* since any attempt to do so would break the disinterested, separate, esthetic engagement with the world that constitutes the very essence of play. Play is paradoxical, but it should not be so to the extent that we cannot reflect upon its role in shaping the ethical behavior of those who play, or the moral impact of their actions. If we embrace play's separateness as an non-negotiable ontological quality, then we also accept a paradoxical position: Play creates culture, but if play is outside morality, then the culture it creates is also outside the scope of moral scrutiny.

For example, the Nazi regime used the Olympic Games to showcase their ideology and politics. By blurring the lines between play as ritual and the world outside the ritual, the Nazis wanted to project a powerful message in a way that might have guaranteed the validation of their arguments. Besides being a stage for displaying their organization power, the Olympics would be a constitution of the racial superiority of Aryans—a validation that would be objective and not polluted by politics or morals, as it would take place in the free and separate space

of play. The rise of nationalist totalitarianism is one of the looming presences in Huizinga's *Homo Ludens*, which I interpret as a response to the ludic element in the manifestations of these political programs. Huizinga attempted to assert the roots of modernity beyond the perverted nationalist visions that totalitarian regimes were defining. Huizinga saw the rise of fascism and understood that at least part of its success was connected to the industrialization and commodification of the ludic drive, from the Berlin Olympics to the marches and parades that defined public collective action (Adorno and Horkheimer 2010). For Huizinga, his contemporaries had perverted the ludic drive at the heart of modernity: "More and more the sad conclusion forces itself upon us that the play-element in culture has been on the wane ever since the 18th Century, when it was in full flower" (Huizinga 1992, p. 206; see also pp. 208–211).

Another, more recent example could be seen in the modern production and consumption of fake news, which became so relevant after the results of the 2016 USA Presidential Election. Fake news are narratives produced and consumed under the esthetics and rhetoric of news, but based on rumors, fictions, and partisan politics rather than on fact and reflection (Berkowitz and Schwartz 2016; Khaldarova and Pantti 2016). While fake news cannot be explained exclusively as a play phenomenon, applying a play perspective can shed new light on the emergence of these phenomena and their distribution in computational culture.

Social media can be interpreted as a play field with clear rules that can be exploited. Like Bakhtin's carnival (Bakhtin 1984; Golumbia 2009), this fake news constructs an alternative world in which institutions are mocked. Unlike Bakhtin's carnival, however, this news does not bring a critique of power but the rising of a conservative, unintellectual majority. This has eventually led some proponents of conspiracy theories to perceive fake news as an element of a great game, ¹ a puzzle that only the selected few, the 'players', can solve (Montola et al. 2009). That world is perceived as a game, partially because it emphasizes its separateness from the *real world*. And yet, it ends up configuring and affecting cultural and political discourses that have serious effects.

Play theory is well-suited to address these phenomena from the perspective of the ludic: Caillois' (2001) "excessive play" concept, or Schechner's (1988) "dark play" account for the possibility that play can also be harmful, insulting, and dangerous. Geertz's (1972) theories provide empirical insight into the darker sides of play, which have recently been very present in the shaping of the

¹"It is like a giant game", as cited in https://www.washingtonpost.com/local/pizzagate-from-rumor-to-hashtag-to-gunfire-in-dc/2016/12/06/4c7def50-bbd4-11e6-94ac-3d3248401 06c_story.html?utm_term=.b9d3cb02ebba. Retrieved: [23.08.2017].

online communities of players of digital games (Chess and Shaw 2015; Massanari 2017). However, all these works shy away from the admittedly complicated task of adopting an ethical approach to the problems created by play.

Creating an order in the world by applying a play lens to it is what makes homo ludens a creator of culture. However, doing so without moral reflection leads to damaging cultures, like those that foster fake news or the "ambivalent internet" (Phillips and Milner 2017). This is a process of commodification and weaponization of play as an instrument for partisan or criminal purposes. Play can create worlds, and these worlds reflect the values of homo ludens. Therefore, one needs to inquire about the moral foundation of homo ludens: to understand the ethical challenges of a playful computational culture, and the ways in which we can intervene to analyze problems and effect change.

4 Homo Ludens and the Ethics of Re-Ontologization

Even though Huizinga considered play to be beyond the domain of morality, I argue that ethical theory can address the creative nature of *homo ludens* while embracing the paradoxical nature of play. Players exhibit moral behaviors and practice moral reasoning in very specific, sometimes unconventional ways (Sicart 2009). In this context, we need to start our inquiry from the perspective of play as a re-ontologizing activity that takes place in an infosphere, an environment defined by the interfacing of human and computational agencies.

Play is a moral action because it re-ontologizes the world for the purpose of playing. Play creates encapsulated worlds through the use of rules, social norms, and mutually agreed goals, in order to achieve a (shared) pleasurable experience (Goffman 1961; Huizinga 1992; Henricks 2016). This process of appropriation is not morally neutral: Games and other play technologies have embedded values that affect the way the world is re-ontologized. At the same time, players have values they bring to the activity of play (Sicart 2009).

Any ethical discourse about *homo ludens* needs to reflect the informational nature of being, the infosphere as the space in which informational agents live and thrive, and the creative, appropriative capacities of *homo ludens*. An ethical understanding of *homo ludens* needs to be flexible enough to allow for understanding how play reflects and interacts with the social structures in which it takes place.

Given these requirements, I propose to adopt a constructivist approach to the ethics of *homo ludens* (Bynum 2006; Volkman 2010, 2013). Information Ethics (IE henceforth) provide a method (Floridi 2008) to address the complexities of

ethical constructivism in human-computational networks. From an IE perspective, agents in the infosphere should proactively contribute to maintaining the informational balance of the infosphere: "By placing value in the infosphere and in the informational nature of entities, regarded ontologically as the primary, fundamental, and constituent element of our new element and its artificial agents, it is possible to elaborate a constructionist strategy that supports an ecopoietic approach" (Floridi 2013, pp. 178–179). The infosphere requires a constructivist ethics because it needs to be developed by all the informational agents that inhabit it: "[...] IE is an ethics addressed not just to 'users' of the world, but also to producers or demiurges, who are 'divinely' responsible for its creation and wellbeing" (Floridi 2013, p. 168). Human agents in the infosphere should behave as homo poieticus, stewards of the environment in which they thrive: "Homo poieticus concentrates not merely on the final result, but on the dynamic, on-going process through which the result is achieved. Homo poieticus is a demiurge, who takes care of reality, today conceptualized as the infosphere, to protect it and make it flourish" (Floridi 2013, p. 175).

The examples of these processes range from the constructive engagement in online conversations, occasionally supported by technological tools (Sherrick and Hoewe 2018), to the importance of code commenting in open source projects as a way of distributing responsibility and ensuring the quality and integrity of the products (Arafat and Riehle 2009).

I argue that this *poietic* nature is analogous to what *homo ludens* does when playing. Play worlds are encapsulated infospheres, model worlds in which rules and actions give purpose and consistency to the very existence of that world. To play by the rules, and to change those rules so all players are welcome and able to enjoy the pleasures of play (DeKoven 2013), is to act *poietically* in the world of play.

Playing is *poiesis*: the creation of infospheres for playable pleasures. From the play activities guided by toys, such as make-believe and role-playing (Bateson 2000) to the coordinated efforts that result in *e-Sports* (Seo and Jung 2014), playing is a carefully balanced activity that proposes a world, gives it a consistency through rules and props, and bestows upon agents the responsibility of keeping that world alive. A radical example of this *poiesis* was documented in the groundbreaking work of game scholar Celia Pearce, who followed a community of players that re-created the communities of play they had forged in a shutdown videogame in other massively multiplayer games (Pearce 2009). That process of recreation shows the capacity of *homo ludens* to act creatively, *poietically*, as an integral part of playing: once the original game was shut down, the *practices of*

play continued. To play is create, nurture, and sustain those practices, aided by game structures.

Both *homo poieticus* and *homo ludens* possess creative agency. They are both models of constructivist beings, creators and preservers of worlds. Because of their central role in creating and preserving these worlds, we can see both *homo ludens* and *homo poieticus* as agents who should bear moral responsibility towards the world they inhabit and the agents they interact with. These values are not always positive: the worlds that GamerGate created and defended are based on discriminatory values. But seeing this process of world-creation from a lens of a constructivist ethics allows for the ethical critique and evaluation of the values on which these worlds are created. Both *homo ludens* and *homo poieticus* create and inhabit worlds with values, and uphold these values through their actions.

This process is what Floridi defines as creative stewardship (Floridi 2013, p. 168). The *homo poieticus* is a steward of the values and informational integrity of the environment they inhabit. This defines its creative requirements: the capacity to protect and contribute to the infosphere. Multiplayer games, both online and offline, provide good examples of this: Communities of players tend to despise those who cheat, or worse, those "spoilsports" that break the agreed-upon, negotiated nature of the play experience (Consalvo 2007). Players tend to act together, finding balance and expression through play, and through that process, they develop and practice the virtues of that particular play experience.

Similarly, *homo ludens* is responsible for the values that define the encapsulated world created when playing. As Goffman observed, many of the activities that we engage in when we play have to do with collectively negotiating the purpose of our actions while maintaining the integrity of the separated world in which we play: "Speaking more strictly, we can think of inhibitory rules that tell participants what they must not attend to and of facilitating rules that tell them what they may recognize" (Goffman 1961, p. 31). This is equivalent to the informational integrity of an infosphere. To play is to create and sustain an encapsulated infosphere. *Homo ludens* has creative stewardship of the worlds of play.

This constructivist approach allows us to undertake the ethical inquiry into the way the play-worlds are constructed and the way players behave towards those play-worlds, all the other players, and the world in which those worlds occur. Part of the challenge of being a moral *homo ludens* is to learn to have creative stewardship over the play-worlds, while at the same time acknowledging that not everybody plays, thar rules can also rule-out because not everybody outside of those worlds wants to be a part of them. In this sense, I want to shift the importance of the separateness of play to the moral domain of the player: It is through action, through creative stewardship, that players need to make sense of

the separate-but-connected relationship of play-worlds with the worlds in which they are instantiated. To play is also to be able to navigate, and act upon, the voluntariness of play, its separateness, and its autotelic nature.

In the domain of computational culture, this approach can be used to provide an analytical framework to the study of several different kinds of phenomena, for example, Internet phenomena that with a hate-spreading agenda, from 8-chan to GamerGate, employ the esthetics and iconography of play to further their agenda. This is not to say that these are exclusively cultures of play: There are many lenses we can use to analyze them. But play is a productive and underused concept to explain these phenomena. These behaviors are given a plausible deniability of ethical responsibility by applying a popular appropriation of Huizinga's notion of the separateness of play: "It's just a game". The argument of separateness for plausible deniability is not valid, as play is not an activity separate of the world, but an activity of world creation that demands ethical stewardship. Creating a world in which asymmetric, harmful relationships between agents are established (Phillips and Milner 2017) is an example of how homo ludens can use the play drive to create worlds of hatred that instrumentalize the sociotechnical affordances of computational machines. The deniability argument that "it's just a game" or that "we're just playing" is a renouncing of the creative- stewardship duties anybody who creates or acts in a play-world has.

The worlds created by the ludic drive have a certain epistemic invulnerability: Because they are voluntary, and have their own purpose, they can sometimes seem to be impervious to critique: Play is "just" play. This is the scenario of childish vandalism that Floridi observes when critiquing homo ludens (Floridi 2013, p. 80). But we should not confuse the epistemic invulnerability of rules with the meaning and purpose of the worlds created through those rules. It is not in the rules, formal or informal, that we can find the ethics of play. All analysis of the ethics of play should focus on the *poietic* act of creating and maintaining an encapsulated world that is related to the world in which it is instantiated.

An ethical *homo ludens* is in creative charge of the values that structure the reontologization process that creates the encapsulated play-world. *Homo ludens* is
also in charge of upholding those values, and contributing to the experience of the
ludic in a creative way. If we are to understand how *homo ludens* can act ethically
in the Information Age, we need to address its *poietic* actions, and develop the
kind of constructivist ethics that will allow us to better engage with this playworlds and the ways they affect computational culture. We also need to describe,
and understand, what are the values that are *at play* in the creation of these worlds.
Scholars like DeKoven (2013) have formulated a discourse on play that could be
used to propose a list of values for the worlds created by *homo ludens*: community,

fun, inclusion, ... Similarly, Vallor's (2016) cybervalues could be used to relate the play-worlds with the constructivist processes of *homo poieticus*. However, the project of specifying the values of play goes beyond the scope of this chapter, though it should be its natural continuation.

I propose that the ethical analysis of *homo ludens* focuses on how to create worlds through play by specifying the values of those worlds, the values of the actions that can take place in that world, and the way they relate to the world in which they are instantiated. It is the moral duty of *homo ludens* to make these values public, to share them, to reflect upon them, and to ensure that they contribute to the well-being of every agent in the play-world. The re-ontologization process that creates the play-worlds should be seen also as a moral process, since it is the origin and foundation of the values upheld by *homo ludens*, the values that should lead to play as a mode of well-being in the worlds created by play.

5 Conclusions

This chapter proposes an initial sketch for the understanding of the ethics of *homo ludens* in the Information Age. So far, I have only superficially applied some general Information Ethics concepts, and I have not specified in detail which ethical theories can be applied to this project, besides an expansion of Virtue Ethics. However, I hope to have provided an insight into the ways play can be seen as a generator of cultural manifestations in the Information Age and established that the process of creating those manifestations is not exempt from ethical scrutiny.

I have argued that if we look at the information from the perspective of play, we can understand cultural production as the result of a ludic drive. This is possible because both play and computers have a re-ontologization capacity: They change the nature of the world, in the case of play by creating an encapsulated play-world. The worlds created by play have an effect on the cultural discourses of the Information Age. Therefore, it is imperative to understand the ethics of homo ludens so we can address the challenges that this play drive creates in and for culture. I started this inquiry by arguing that homo ludens is a type of homo poieticus. This means that we could potentially develop a constructivist ethics of homo ludens that take into consideration the poietic and re-ontologizing capacity of the ludic drive.

To play is to create worlds within this world, creating culture and human forms of expression. In our era of ubiquitous computer machines, addressing how the moral nature of *homo ludens* affects play-worlds is a crucial perspective. In that

creative stewardship, the ethical role of *homo ludens* in the Information Age is defined.

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