PLAYTHINGS

Keywords

Play, Game Studies, New Materialism, Ontology, Epistemology

Abstract

This article proposes the concept of "plaything" as an instrument to inquire on the ontology and epistemology of the *things* we play with. Extending Barad's (2007) onto-epistemology and Ingold's (2012) concepts of "things" and "objects", this article intends to provide a theoretical contribution to the materialist turn in game studies (Apperley and Jayemanne, 2012).

The main argument of the paper is as follows: the ontology of the things we play with is separate from its epistemology. The concept of *playthings* provides a materialistic ontology that accounts for the technologies we play with. At the same time, concepts like videogames, toys, or games, are understood as being epistemological concepts, used to create situated knowledge (Haraway, 1988) about *playthings*. *Playthings* helps describe how a technology is shaped for and through play, while other concepts place the experience of playthings in culture and society.

Short description

This article proposes the concept of "plaything" as an instrument to inquire on the ontology and epistemology of the things we play with.

Introduction

This article proposes the concept of "plaything" as an instrument to inquire on the ontology of the *things* we play with. Traditionally, game, toy, videogame, and other classes of objects have been understood as ontologically separate categories diffusely connected to the concept of play. This article reverses that argument, proposing a materialistic approach that provides a novel meta-category to study what happens to *things* when we play with them. Barad's (Barad, 2007) onto-epistemology and Ingold's (Ingold, 2009, 2012) concepts of "things" and "objects", the concept of *plaything* provides an ontological angle to the study of material practices of play. The article intends to provide a theoretical contribution to the materialist turn in game studies. *Playthings* provides a materialistic ontology[1] to describe the nature of the technologies of play. The activity of play is materially mediated (Apperley & Jayemane, 2012). In that mediated activity, a specific category of things *become*. From this perspective, concepts such as game, toy, and videogame are epistemologically rather than ontological, that is, culturally and historically situated (Haraway, 1987, 2016) categories of playthings. Karen Barad's onto-epistemology will provide the theoretical framework for this argument.

This article's main argument starts with the premise that the activity of play is a particular type of material entanglement (Barad, 2007; Bollmer, 2019) defined by the characteristics of play as a relational mode of being in the world (Henricks, 2016a, 2016b). In order to analyze the relational material practice of play, this article applies Karen Barad onto-epistemology to make a distinction between *playthings* as ontological concepts, and games, toys, and playgrounds as

[1] Ontology is here understood as the study of the nature of being. This understanding of the concept draws from the phenomenological tradition of the Nazi philosopher Heidegger (Heidegger, 1971, pp. 161-184). In this article I am adhering specifically to Karen Barad's notions of ontology, experience, and agency as defined in her Agential Realism project.

epistemological concepts. In this relational material entanglement, new objects come into being as a consequence of a playful relational material entanglement.

The goal of this article is to contribute to the conversation in game studies around the question of the ontology of games (Aarseth & Calleja, 2015). While the topic of material entanglements with media has been addressed from multiple perspectives and traditions (Bollmer, 2019; Giddings, 2016), this article is exclusively concerned with the question of the ontology of games, and therefore locked on a particular tradition in game studies. Future work in this line should engage with sociology, material culture studies, and science and technology studies.

Summarizing, this paper proposes a concept that allows for the expansion of the kinds of things that can be studied as results of a material practice of play. For example, Twitter Bots (Veale & Cook, 2018) can be described as playthings that result from a playful entanglement with Twitter. Programmers of bots explore the possibilities of automated content generation, and the context of a social network, to create a particular phenomenon that is not a game, nor a toy, but invokes a certain playful engagement with technology (Breslin, 2013; Garda & Karhulahti, 2021).

This article will proceed as follows: the second section will define *playthings*. The third section will explain the theoretical foundation of the concept of playthings, drawing on Karen Barad and Tim Ingold's work. The fourth section of the paper will relate this work with the materialist turn in game studies, illustrating the use of the concept with a game-specific example. In the conclusions I will propose applications of the concept of playthings beyond the scope of this article.

Playthings

The activity of play as a way of relating and engaging with technology can be seen in many places: there are games and videogames, toys and playgrounds, and all other kinds of gamified experiences. When signing up for Apple's *Music* service, the user is encouraged to input information about their taste using a strange interface consisting of a couple of dozen circular labels that are animated as physics objects. These labels have simulated mass and respond to interaction moving with inertia. It is a highly inefficient way of information input, but also a very playful one. It encourages exploration and adds curiosity to the interaction with a recommender system. Is this interface a game? Maybe it could be seen as a competitive game, if providing the right results to it so that music recommendations are relevant to our taste is an important goal. Or is it a toy? Drawing on a physics simulation to allow for interactions that are not goal-driven and that are more expressive in nature than results-oriented is more of a software toy feature. Apple's recommendation interface for their music platform is neither a game nor a toy. It can be understood as either, but it *is* a plaything – an assemblage of materials and agencies as a result of the practice of play.

The concept of play proposed here extends Lugones' (Lugones, 1987) and Sicart's (Sicart, 2014) definitions through an interpretation of Nippert-Eng's concept of "boundary play" (Nippert-Eng, 2005) and Cohen's relational and tactical approach to play (Cohen, 2012). Sicart defines play as an appropriative, expressive, autotelic, carnivalesque mode of being in the world (2014, pp. 6-18). Playfulness is defined as "a way of engaging with particular contexts or objects that is similar to play but respects the purposes and goals of that object or context" (ibid p. 21).

Lugones defines playfulness as an attitude that positively "involves openness to surprise, openness to being a fool, openness to self-construction or reconstruction and to construction or reconstruction of the "worlds" we inhabit playfully. Negatively, playfulness is characterized by uncertainty, lack of self-importance, absence of rules or a not taking rules as sacred, a not

worrying about competence and a lack of abandonment to a particular construction of oneself, others and one's relation to them." (pp. 16-17).

Cohen's concept of the networked self, and Nippert-Eng's idea of boundary play add the notion of relationality as a key element in play, and therefore will be the foundation for this article's theory of play. According to Cohen, play is at the heart of the tactics that determine relations with software (Cohen, 2012, pp. 32-59). Cohen draws on theories of embodiment in the digital age in order to understand how embodied beings make sense of software. Play is an in-between movement, a constant negotiation with the rules and parameters of software. This focus on play as a negotiated movement between embodied subjects and software echoes Gadamer's writings on play. However, Gadamer is writing about play and relationality mostly as a way of engaging with hermeneutics, that is, with the interpretation of something that exists already, while Cohen's relational approach describes play as a relational practice with software.

This focus on relationality is also present in Nippert-Eng's boundary play. For Nippert-Eng, there is a form of play that consists of the evaluation and creation of social and cultural behaviors based on a playful exploration of boundaries. Boundary play is another form of relational play that connects to already existing boundaries, dichotomies, and concepts, and how interacting with them creates new forms of expression.

In this article, play is understood a relational practice of being in the world, characterized by the creation, recreation, and appropriation of relations between agents and things and mediated by materialities. This concept of play is Huizingan (Huizinga, 1971) in that it stresses a play as related to experience and aesthetics. For this reason, it inherits all the problematics of romantic ideology that affect *Homo Ludens* (0/0/00 0:00:00 AM. However, the focus on relationality as a core property of play opens up for adaptations of the concept here presented from constructivist perspectives (Goffman, 1961; Stenros, 2015).

The activity of play can be defined as a relational material practice. When playing, there is a creation of a world as perceived and experienced, the creation of a particular mode of understanding, and the creation of particular material arrangements with the technologies that mediate the activity.

In this article, the concept of materiality is rooted in Ingold's concepts of "things" and "materials" (Ingold, 2012) as well as on Karen Barad's ontoepistemology (Barad, 2007). These concepts will be presented with more detail in the section dedicated to understanding "things". However, it is important to highlight here that *playthings* is a concept that draws from philosophy, and establishes a conversation with materialist media theories (Bollmer, 2019), specifically around the activity of play. In this section the focus is the activity of play; in later section of the article the focus will shift to materiality.

When playing, the order created in the activity is also a form of creating knowledge. Play formulates ontologies but also epistemologies. Playing creates knowledge about the world and the worlds created, about people and other agents at play, and about the things that are used in the play practice. In the context of play as a relational material practice, new "things" emerge. Games, toys, videogames, these are the "things" that come into being through play.

With this notion of play in mind, let's look at some technologies of play, like software toys. The software program *Kids (Frei & von Rickenbach, 2019)* can be experienced as a toy or a videogame. Commercially, it is marketed and distributed as a videogame. However, it lacks many of the characteristics of videogames, and playing with it can also result in making sense of *Kids* as a toy - so much so, that some of the abandoned vignettes for the videogame are available under the moniker of toys.

Does it matter whether *Kids* is a toy or a videogame? This ontological question isn't necessarily productive, as the inconclusive outcomes on the ontology of "games" (Juul, 2005) typically end up requiring formulations like "borderline cases" to make cohesive formal ontological

models. This article suggests a different approach: considering *Kids* as a piece of software that ontologically is a plaything, it can be experienced, that is, understood and explained epistemologically as a videogame, if the focus is placed on the element of progression, its ending, and how it evaluates players' actions by allowing them to progress from scene to scene when certain conditions are met. *Kids* as plaything can also respond to the epistemology of the toy, in which the focus shifts to how interactions are designed to create curiosity, how the progression is never clearly signaled to players, and how the experience is open ended.

Concepts like games or videogame or toys or playgrounds are epistemological results of different experiential and/or analytical frames that try to make sense of the experience of the things we play with. The concepts of "game" or "toy" or "software toy" are epistemological frames that situates particular material practices in culture. Ontologically speaking, *Kids* is not a videogame nor a toy. *Kids* is a plaything.

In this sense, play is the process of ontologically constituting *things* into playthings. Any *thing* that is part of the practice of play gets its meaning and its ontology from that concrete technosocial situated arrangement of human agency, artificial agency, and materials.

In the case of Apple's interface to its music subscription system, we can use the concept of *plaything* as a premise to look into the configuration of a particular material relation with software. This interface is presented as something that can be played with, not as a way of teaching a computational system to predict our taste. It is not functional or instrumental, it is explorative and generative, it wants users to play around. That plaything can be understood as game-like ("I would like to train the most appropriate algorithm"), or as a toy ("let me try around and see how these objects behave, if I take difference decisions"). Playing constitutes this interface as a plaything, that is then situated in a knowledge continuum using concepts like game or toy.

Plaything is a more general concept than that of game or toy. The concept of playthings is a contribution to the understanding of the activity of play parallel to materialist media theories (Bollmer, 2019). Through the concept of *playthings*, we can analyze the material practice of play. It is not however a media theoretical concept but a philosophical one: it describes an ontology, a category of being.

As an example, let's look at a videogame as a plaything. *Legend of Zelda: Breath of the Wild* (Nintendo EPD, 2017) is *clearly* a videogame. It is the first game in the Zelda series to be published for the Nintendo Switch console, it has a hero, a narrative, goals, checkpoints, and boss fights. Most ontological frameworks for the analysis of games (Aarseth & Calleja, 2015) could be applied to situate *Breath of the Wild* in the category of "game" or "videogame". Seen as a videogame, *Breath of the Wild* is an adventure game with role-playing elements structured around a classic hero's journey.

But *Breath of the Wild* is also *clearly* a toy. Even though there is a game narrative structured around yet another iteration of that hero's journey, the refreshing aspect of this iteration of the Zelda series is its focus on the presentation of a multitude of interlocked systems that allows for an in-depth exploration of the articulating logics of an open world. The game allows players to use a rock as a flying machine, and it encourages approaching the interaction with the world from the perspective of curiosity and embodied pleasure.

Breath of the Wild is not a videogame, nor a toy. Ontologically speaking, *Breath of the Wild* is a plaything, and whatever we say about it as a game or as a toy is an epistemological consequence of making sense of that plaything, using the cultural concepts of "game" (and "videogame") or "toy" to explain it, and frame the experiences of interacting with it within a particular point in time and culture.

The concept of plaything allows for different vectors of analysis. Some will question the ontological understanding of a videogame as videogame, like in the case of *Breath of the*

Wild. Some other vectors would allow for political and economic analysis of videogames as technologies of play: what is the purpose and effects of *understanding* some playthings as games? Or excluding some playthings from being understood as games? Playthings gives an ontological foundation to the metagaming argument that videogames are not "games" but an (epistemological) category of their own (Boluk & LeMieux, 2017). The concept of plaything provides insights to practices and configurations and materials and the different ways in which materials and agents create each other in the activity of play.

Can everything then become a plaything? There are things in the world that resist becoming playthings. For example, control panels at nuclear power plants, or flight deck instruments and systems in an airplane cockpit – when in use, these are material arrangements of systems that are designed to actively refuse to become a plaything. They can be simulated into a plaything, like in *Microsoft Flight Simulator* but the actual airplane cockpit is designed to prevent playful appropriation from the pilots. There are systemic redundancies, self-shutting systems that prevent for the explorative, surprise-driven, autotelic relational engaging of play. A non-plaything would be any *thing* that cannot come into being when trying to play with it. That refusal is a consequence of both design and socio-cultural practice. However, not very many things are non-playthings. The study of that category can be of critical interest to understand design and the role of playthings in culture, which will be future research directions for this project.

The concept of playthings offers a different entry point to the question of play everywhere. Graphical user interfaces, like the example of Apple's interface for their music recommendation system, can be experienced as playthings; they can come into being through the activity of play. The openness to interpretation (Sengers & Gaver, 2006) of some technological material arrangements can be analyzed from the epistemological point of view of games, toys, or other technologies of play.

For example, Apple's Fluid Interface design aesthetic (https://developer.apple.com/videos/play/wwdc2018/803/, accessed 9/11/2019), which provides the technical and aesthetic foundation for the *Music* recommendation system, focuses on aesthetic redundancies like animations to create surprise. This makes these interface guidelines appropriate for guiding the creation of interfaces that might more easily be experienced as playthings. And once they are playthings, it is possible to analyze them using epistemologies of play. Ontologically, play is a mode of becoming, epistemologically, concepts like "games", "toys", or "videogames" situate playthings in culture. The question of videogame and play studies becomes a question of understanding materiality as a focal point of practices from which the objects of study, and the possible knowledge to be inferred, emerge.

The concept of plaything wants to expand the perspectives, scope, and ambitions of play studies through an analysis of play as a material entanglement practice in the world. In the next section, I will situate this perspective within contemporary philosophical traditions.

Knowing Things

Plaything is the ontological concept that can be used to describe the practices of play. This form of entanglement needs to be further explained. While there is a tradition of material media studies (Bollmer, 2019), this article is in conversation with the philosophical school of new materialism (Coole & Frost, 2010) and other entanglement theories applied to digital technology (Frauenberger, 2019). The specific theories upon which this concept *plaything* is established take off from Ingold's difference between things and objects and Barad's onto-epistemology.

Let's start defining *things*. Ingold's understanding of things and materials (2012) is based on a critical reading of the Aristotelian concept of hylomorphism, which understood things as being a compound of matter and form, brought together in the act of creation. In the Aristotelian tradition, "matter" is supposed to be passive, being shaped by active "forming" until a thing

comes to being (ibid, 432-433). Ingold's alternative to hylomorphism takes inspiration from Simondon and Heidegger. For Simondon, "the generation of things should be understood as a process of ontogenesis in which form is ever emergent rather than given in advance" (quoted in Ingold, 2012, p. 433). Similarly, Ingold reads Heidegger's account of things as "gathering[s] of materials in movement", so that witnessing a thing is joining "with the processes of its ongoing formation" (ibid, p. 436).

There is a difference between "materials", understood as "matter considered in respect of its occurrence in processes of flow and transformation" (ibid, p. 439), objects, understood as "completed forms that stand over and against the perceiver and block further movement" (ibid, p. 439), and things, which are "gatherings of materials in movement, as distinct from objects" (ibid, p. 439).

In the context of the study of videogames, understanding them as Ingold's *things* implies studying the meeting point in which human agency, human experience, technological agency and materiality become entangled in a process of ontogenesis. Again, this observation was made before in game studies (Taylor, 2009), the difference is that the concept of playthings allows for a distinction between the ontological and the epistemological We can study videogames as material practices because their ontology, their *being*, is that of an entangled material practice. The implications of this approach are epistemological: concepts like "games" or "videogames" are instruments for creating situated knowledge about playthings. Videogames *are* a material/experiential practice of technology. This notion is also present in the Critical Technical Practice inspired research on Playable Media (Mateas, 2003), as well as on Platform Studies (Montfort & Bogost, 2009), two traditions that are more or less explicit in their materialist definition of videogames. The material ontology of playthings affords an understanding of the things we play with from a relational perspective: studying videogames (or games, or toys) is analyzing relations between things and bodies in constant movement, at

a point in time, in a culture and society. To explore this relational approach, I will apply Karen Barad's agential realism (Frauenberger, 2019; Hollin et al., 2017; Introna, 2014; Marshall & Alberti, 2014).

Barad's work is a rebuttal of the division between observer (active) and observed (passive). Drawing on her background in physics, Barad argues that the observer and the observed are always connected by apparatuses, and that methodology is always a part of the investigation. According to Barad, "making knowledge is not simply about making facts but about making worlds, or rather, it is about making specific worldly configurations—not in the sense of making them up ex nihilo, or out of language, beliefs, or ideas, but in the sense of materially engaging as part of the world in giving it specific material form" (2007, p. 91).

This approach allows for an inclusion of matter as "an active participant in the world's becoming" (2003, p. 3), including the methods by which matter itself is experienced, revealed, and instantiated in the ontology of the world. Barad's theory allows us to situate matter as part of an agential process of ontological creation. This process is also defined by the creation of forms of knowledge. Only when things become, we can know them. That is onto-epistemology, "the study of practices of knowing in being" (2007, p. 185).

Onto-epistemology takes as a starting point the concept of phenomena. Phenomena are the smallest units of analysis, "a specific intra-action of an 'object', and the 'measuring agencies'; the object and the measuring agencies emerge from, rather than proceed, the intra-action that produces them" (2007, p. 128). What we research, what we observe, what we experience, is enacted in entanglement with how we research, how we observe, and how we experience: "phenomena do not merely mark the epistemological inseparability of observer and observed, or the results of measurements; rather, phenomena are the ontological inseparability [an] entanglement of intra/acting "agencies" (139). In this article, I understand phenomena as what happens when the world is experienced through the experiential position of play.

Barad provides a way of making sense of this always flowing world of phenomena. When researching phenomena, we temporarily stabilize specific qualities (*ibid*, pp. 139-142). The stabilizing qualities of agential components is what Barad defines as "agential cuts": diffractions of different types of agencies, or stabilizations of phenomena into doings. To research is to stabilize intra-actions, the relational and continuous entangled flowing of phenomena, through agential cuts that momentarily allow us to observe how things and people and agency are mutually constitutive of each other: "Agency is "doing" or "being" in its intra-activity. It is the enactment of iterative changes to particular practices-iterative reconfigurings of topological manifolds of spacetimematter relations-through the dynamics of intra-activity. Agency is about changing possibilities of change entailed in reconfiguring material-discursive apparatuses of bodily production, including the boundary articulations and exclusions that are marked by those practices in the enactment of a causal structure. Particular possibilities for (intra-)acting exist at every moment, and these changing possibilities entail an ethical obligation to intra-act responsibly in the world's becoming, to contest and rework what matters and what is excluded from mattering." (*ibid* 178)

In Barad's theory, the primary ontological unit of reality is reproduced by discursive material practices, in a process she defines as "mattering". Knowledge is produced by mattering things. The world is phenomena. In order to understand it, we need to perform agential cuts that constitute forms of agency through discursive material practices, which "are specific material (re)configurings of the world through which the determination of boundaries, properties, and meanings is differentially enacted." (*ibid* 148). Ingold's concept of *things* allows us to look at and analyze that matter in movement, not as static objects.

Applying Barad's terminology, playing is a discursive material practice that "matters" the things so a playful entanglement can take place. For example, when playing with a stick, the stick becomes a prop in the activity of play I am engaged in, and that activity, and thus my

agency, is also determined by the stick. My agency as player is constituted by the stick, as much as the materiality of the stick is condition by my agency as player. Play is the material practice of enacting agential cuts in order to create momentary stabilizations of materials. In this momentary stabilizations, things and agents are doings that create beings. That is, the stick is not a toy, or a game: it is a thing I am playing with, and that plays with me.

Let me apply this approach to Vectorpark's *Feed the Head* (Vectorpark, 2007), an interactive computer program in which users explore a possibility space without necessarily considering that there are goals or any ulterior purpose. *Feed the Head* presents players with an animated head that responds to touch input. There are no instructions, and the head will not do anything remarkable unless interacted with. Touching on different places triggers different animations that add new graphics to the screen, change the shape of the head, and play different sounds.

Playing with *Feed the Head* is driven by curiosity and exploration, by figuring out a possibility space and shaping it through interactions. This would be an experience of this software program as a toy. But *Feed the Head* can also be experienced as a videogame - not one with winning or losing conditions, but one in which the progression between interactions is guided, and a type of skill is developed (learning to see what the enigmatic interactive head wants players to do). While it is not totally clear if the progression exists as such, or if it is just a projection of the user's intentions and goals with making sense of the app, it is possible to describe for interactions with *Feed the Head* as a game of progression (Juul, 2005) given its ambiguity in design.

But these two modes of experiencing *Feed the Head* take as a starting point that this software is a thing that can be played with – it is software that entangles with playful agency and becomes a *plaything*. Play is the discursive material practice that "matters" *Feed the Head* into a particular onto-epistemological position.

The applicability of the concept of plaything starts with videogames and other technologies difficult to define. As I will study in the next section, some game studies scholars have argued that videogames are not games. The problem this argument addresses is that of the ontology of games. Defining the nature of games and what constitutes a game is complicated (Stenros, 2017). Through the concept of plaything, we can add nuance to this particular project: things that come into being in the entangled material practice of play are playthings. Their ontology, their nature, is the result of playing as mattering. *Feel the Head* is a plaything constituted by playing with interactive software on a tablet.

These playthings can be studied using concepts such as "game", or "videogame", or "toy". This epistemological process implies applying methods and theories to create situated knowledge about a particular plaything. As Barad argues, ontology and epistemology are connected. Using the concept of playthings allows for the nuanced distinction between what a particular entanglement *is*, and *how* it is understood. *Feel the Head* is a plaything, and can be studied as game, a toy, or a videogame.

As illustrated in the previous section, playthings allows for an expansion of what can be studied using the epistemologies of play and games. Interactive software like Apple's Music recommendation system is a plaything that can hardly be understood as a game or a videogame, but that can be described and studied as a (software) toy. This raises the possibility of, for example, questioning Apple's intentions behind making a recommendation system be playful. Another example can be seen in Garda and Karhulati's analysis of *Tinder* from the perspective of game studies (Garda & Karhulahti, 2021). In this article, the authors convincingly argue that this dating app is often used as entertainment, and in those cases its ludic structure helps users articulate the "gameplay" of Tinder. This line of research shows how a play-drive approach to a piece of software understood as a material can make a plaything become, and that once that

playthings exists, it can be studied from the perspective of "games". Tinder is not a game, but it can become a plaything that can be understood as a game.

Understanding play as a discursive material practice of entanglement that generates *playthings* that can then be studied (situated in culture, society, economics, politics) as videogames or games or toys, increases the applicability of the concepts that game studies has developed in its epistemology of playable media. But it also means a certain change of direction in game studies. In the next section I will relate the concept of *playthings* with the materialist turn in game studies.

The Question of Videogames and Game Studies

One of the objectives of this paper is to provide a conceptual instrument for the study of material practices of play, intersecting with the fields of media studies (Bollmer, 2019) and especially with game studies. In this concluding section I will situate the relevance of the concept of playthings in the context of what Apperley and Jayemanne (Apperley & Jayemane, 2012) have identified as a material turn in Game Studies.

Apperley and Jayemanne describe how this academic field has moved towards a more materialistic approach to the study of games. Games can be studied as a material nexus of social practices; as technologies designed, developed, distributed and consumed as/for play; as playable technosocial assemblages. The importance of the material element of games, from the platforms on which they run (Montfort & Bogost, 2009) to the social practices they facilitate (Corneliussen & Rettberg, 2008) has changed the discourse about videogames (Anderson, 2017; Apperley & Parikka, 2015).

The material turn has also contributed to an expansion in methods, theories, and research objectives in game studies. Phenomenology has gained traction as a method for constructing theory about games (Keogh, 2018; Klevjer, 2012; Krzywinska, 2006; Sudnow, 1983).

Existentialist theory has also provided insights on what happens in the moment of play (Leino, 2010, 2012), as has media theory(Möring & Leino, 2016). The materialist turn has also resulted in studies on the economics of games (Joseph, 2018; Parker et al., 2017), the nature and role of technical platforms (http://platformstudies.com, accessed 11/9/2019), or the practices of online streaming (Anderson, 2017; Taylor, 2018).

In order to make more specific the contribution that the concept of plaything can provide to game studies, I will discuss recent literature that questions whether videogames are to be considered "games". Boluk and LeMieux (2017), and Keogh (2018) have addressed the topics of materiality, software, videogames, play and embodiment, questioning the use of "videogame" as a category, both epistemologically and ontologically. In *Metagaming*, Boluk and Lemieux claim that "the greatest trick the videogame industry ever pulled was convincing the world that videogames were games in the first place" (2017, Kindle location 205). Their argument is that videogames are different from games because "video games conflate the rules of a game with the mechanics of the equipment" (ibid, Kindle location 206). For Boluk and LeMieux, the technological platform of the videogame differentiates videogames from games. *Metagaming* combines the technical and material analysis of games with the practices of play that emerge from interacting with these technologies, to propose that "the metagame emerges as the material trace of the discontinuity between the phenomenal experience of play and the mechanics of digital games" (ibid, Kindle location 221).

In the context of this article, *Metagaming* is a study of playthings. This book provides a theoretical and practical perspective into the material practices of videogames, understood as assemblages (DeLanda, 2019) of software, human agency, and culture. That is, videogames are playthings. This shift in our understanding of their ontology should also allow for novel forms of epistemology. The creative work of Boluk and LeMieux, for example, is a form of generating new forms of knowledge-making, new *epistemologies* for *playthings*. *Metagaming* is a book

about the material practice of playing (with) software. In this context, "videogames" can be read as a novel epistemological concept that can be used to describe and study the playthings that come into being when playing with some types of interactive software. It allows for new methods of inquiry, an embracing of the practice of critical software development as a way of making sense of playthings. Therefore, Boluk and LeMieux's "videogame" is the kernel of an original epistemological approach to interactive software playthings.

Keogh's work also draws on an understanding of "videogame" as a different epistemological concept than "game". Keogh vindicates a phenomenological tradition of analysis started by Sudnow (1983), which he extends to encompass reflections about new forms of expressions that can be found in independently produced videogames. Keogh argues that "videogames demand an embodied, situated audience that looks and listens, but to this demand they also add the requirement for this audience to physically touch and move" (p. 9). Keogh's videogame epistemology invites the body back into the experience of the interactive software plaything. Keogh critiques the concept of videogames as games, which he considers "[…] insufficient if we are to account for the complex, material entanglement between the playing body and the audiovisuals components that produce the videogame's virtual world" (p. 10). In short, there is no videogame without computational materiality and embodied human experience.

Keogh's epistemology of the "videogame" formulates a framework for understanding the role of embodiment in the entanglement with the interactive software plaything. Boluk and LeMieux give a good understanding of the material side of playing with software; Keogh reminds us that entanglements of this kind are embodied practices. "Videogame" in Keogh's work is an epistemological concept that helps studying playthings that come into being from the material, embodied practice of playing with software.

In game studies, the material turn has implied a questioning of the concept of "game" and its applicability to studying "videogames". The validity of this distinction can be grounded in the

concept of plaything. The concept of plaything allows to situate the questioning of the concept of "videogame" as a process of creating new epistemologies in the field. These new epistemologies can be interesting instruments to study all kinds of playing with interactive software from the perspective of game studies, without shoehorning epistemological traditions into new phenomena (see for example McKeown, 2018). In other words: playthings provide the ontological foundation to the materialist epistemological shift in game studies.

Conclusion

In this paper I have introduced the concept of playthings to describe the ontology of the things that come to being in the material practice of play. This article has introduced the concept, grounding it in new materialist theory, and connected it with the materialist turn in game studies.

Thinking about play as a relational mode of engaging with materiality allows a renewed critical engagement with the concepts of "games" and "toys" and "videogames". Playthings as an ontological concept accounts for all the things in the world people play with that are not games, or toys; all the things that become temporary materials for play. Playthings as a concept highlights how "games" and "toys" and "videogames" are epistemological notions, contextual to a culture and a particular point in time. Playthings also allows for an expansion of our understanding of the relations between materiality and play. There are more things we play with than just games or toys. Understanding what makes materials open to being appropriated by play would imply an expansion of the analytical scope of game studies, and of its impact in the academic and cultural worlds.

The concept of playthings wants to add diversity and nuance to the study of games, toys, playgrounds, and other forms of playful engagements with the world and with materials. Playthings can be used to propose new epistemologies of the materials we play with. The

concept of plaything wants to act as a new instrument and as a reminder of what ought to be the central question driving play and games scholarship: what happens when we play? Play is more than human action changing the world, play is also things changing themselves. In the act of play, *things* become *playthings*.

REFERENCES

Aarseth, E., & Calleja, G. (2015). The Word Game: The Ontology of an Undefinable Object. *Proceedings of the 10th International Conference on the Foundations of Digital Games (FDG 2015).* Foundations of Digital Games, Pacific Grove.

Anderson, S. L. (2017). Watching People Is Not a Game: Interactive Online Corporeality, Twitch.tv and Videogame Streams. *Game Studies*, *17*(1). http://gamestudies.org/1701/articles/anderson

Apperley, T., & Jayemane, D. (2012). Game Studies' Material Turn. *Westminster Papers in Communication and Culture*, *9*(1), 5–25. https://doi.org/10.16997/wpcc.145

Apperley, T., & Parikka, J. (2015). Platform Studies' Epistemic Threshold. *Games and Culture*, *13*(4), 349–369. https://doi.org/10.1177/1555412015616509

Barad, K. (2007). *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*. Duke University Press.

Bollmer, G. (2019). *Materialist Media Theory. An Introduction*. Bloomsbury Academic.

Boluk, S., & LeMieux, P. (2017). *Metagaming: Playing, Competing, Spectating, Cheating, Trading, Making, and Breaking Videogames*. University of Minnesota Press

Breslin, S. (2013). 01010000 01001100 01000001 01011001: Play Elements in Computer Programming. *American Journal of Play*, *5*(3), 357–382.

Cohen, J. E. (2012). *Configuring the Networked Self*. Yale University Press

Coole, D. H., & Frost, S. (2010). *New materialisms: Ontology, agency, and politics*. Duke University Press

Corneliussen, H. G., & Rettberg, J. W. (2008). *Digital Culture, Play, and Identity: A World of Warcraft® Reader*. The MIT Press.

DeLanda, M. (2019). *A New Philosophy of Society: Assemblage Theory and Social Complexity*. Bloomsbury Publishing.

Ehrmann, J., Lewis, C., & Lewis, P. (1968). Homo Ludens Revisited. *Yale French Studies*, *41*, 31–57. JSTOR. https://doi.org/10.2307/2929664

Frauenberger, C. (2019). Entanglement HCI The Next Wave? *ACM Trans. Comput.-Hum. Interact.*, *27*(1). https://doi.org/10.1145/3364998

Frei, M., & von Rickenbach, M. (2019). *Kids* [IOS]. Playables GmbH.

Fuchs, M. (2014). Ludoarchaeology: *Games and Culture*. https://doi.org/10.1177/1555412014547128

Garda, M. B., & Karhulahti, V.-M. (2021). Let's Play Tinder! Aesthetics of a Dating App. *Games and Culture*, *16*(2), 248–261. https://doi.org/10.1177/1555412019891328

Giddings, S. (2016). *Gameworlds: Virtual media and children's everyday play*. Bloomsbury.

Goffman, E. (1961). *Encounters. Two Studies in the Sociology of Interaction*. Bobbs-Merrill.

Haraway, D. (1987). A manifesto for Cyborgs: Science, technology, and socialist feminism in the 1980s. *Australian Feminist Studies*, *2*(4), 1–42. https://doi.org/10.1080/08164649.1987.9961538

Haraway, D. (2016). *Manifestly Haraway*. University of Minnesota Press.

Heidegger, M. (1971). *Poetry, language, thought*. Harper & Row.

Henricks, T. S. (2016a). *Play and the Human Condition*. University of Illinois Press.

Henricks, T. S. (2016b). Reason and Rationalization: A Theory of Modern Play. *American Journal of Play*, *8*(3), 287.

Hollin, G., Forsyth, I., Giraud, E., & Potts, T. (2017). (Dis)entangling Barad: Materialisms and ethics. *Social Studies of Science*, *47*(6), 918–941. https://doi.org/10.1177/0306312717728344

Huizinga, J. (1971). *Homo Ludens*. Beacon Press.

Ingold. (2009). The textility of making. *Cambridge Journal of Economics*, *34*(1), 91–102. https://doi.org/10.1093/cje/bep042

Ingold, T. (2012). Toward an Ecology of Materials. *Annual Review of Anthropology*, *41*(1), 427–442. https://doi.org/10.1146/annurev-anthro-081309-145920

Introna, L. D. (2014). Towards a Post-human Intra-actional Account of Sociomaterial Agency (and Morality). In P. Kroes & P.-P. Verbeek (Eds.), *The Moral Status of Technical Artefacts* (pp. 31–53). Springer Netherlands. https://doi.org/10.1007/978-94-007-7914-3_3

Joseph, D. J. (2018). The Discourse of Digital Dispossession: Paid Modifications and Community Crisis on Steam. *Games and Culture*, *13*(7), 690–707. https://doi.org/10.1177/1555412018756488

Juul, J. (2005). *Half Real*. The MIT Press.

Keogh, B. (2018). *A Play of Bodies*. The MIT Press.

Klevjer, R. (2012). Enter the Avatar: The Phenomenology of Prosthetic Telepresence in Computer Games. In J. R. Sageng, H. Fossheim, & T. Mandt Larsen (Eds.), *The Philosophy of Computer Games* (pp. 17–38). Springer Netherlands. https://doi.org/10.1007/978-94-007-4249-9_3

Krzywinska, T. (2006). The Pleasures and Dangers of the Game: Up Close and Personal. *Games and Culture*, *1*(1), 119–122. https://doi.org/10.1177/1555412005281913

Leino, O. T. (2010). *Emotions In Play: On the constitution of emotion in solitary computer game play* [IT-Universitetet i København]. https://www.forskningsdatabasen.dk/en/catalog/2389140217

Leino, O. T. (2012). Untangling Gameplay: An Account of Experience, Activity and Materiality Within Computer Game Play. In J. R. Sageng, H. Fossheim, & T. Mandt Larsen (Eds.), *The Philosophy of Computer Games* (pp. 57–75). Springer Netherlands. https://doi.org/10.1007/978-94-007-4249-9_5

Lugones, M. (1987). Playfulness, "World"-Travelling, and Loving Perception. *Hypatia*, *2*(2), 3–19.

Marshall, Y., & Alberti, B. (2014). A Matter of Difference: Karen Barad, Ontology and Archaeological Bodies. *Cambridge Archaeological Journal*, *24*(1), 19–36. Cambridge Core. https://doi.org/10.1017/S0959774314000067

Mateas, M. (2003). Expressive AI: Games and Artificial Intelligence. *Digital Games Research Conference 2003, 4-6 November 2003, University of Utrecht, The Netherlands*. http://www.digra.org/digital-library/publications/expressive-ai-games-and-artificial-intelligence/

McKeown, C. (2018). Playing with materiality: An agential-realist reading of SethBling's Super Mario World code-injection. *Information, Communication & Society*, *21*(9), 1234–1245. https://doi.org/10.1080/1369118X.2018.1476572

Montfort, N., & Bogost, I. (2009). *Racing the Beam. The Atari Video Computer System*. The MIT Press.

Möring, S., & Leino, O. (2016). Beyond games as political education – neo-liberalism in the contemporary computer game form. *Journal of Gaming & Virtual Worlds*, *8*, 145–161. https://doi.org/10.1386/jgvw.8.2.145_1

Nintendo EPD. (2017). *The Legend of Zelda: Breath of the Wild* [Nintendo Switch]. Nintendo.

Nippert-Eng, C. (2005). Boundary Play. *Space and Culture*, *8*(3), 302–324. https://doi.org/10.1177/1206331205277351

Parker, F., Whitson, J. R., & Simon, B. (2017). Megabooth: The cultural intermediation of indie games. *New Media & Society*, *20*(5), 1953–1972. https://doi.org/10.1177/1461444817711403

Sengers, P., & Gaver, B. (2006). *Staying Open to Interpretation: Engaging Multiple Meanings in Design and Evaluation*. 99–108. https://doi.org/10.1145/1142405.1142422

Sicart, M. (2014). *Play Matters*. The MIT Press.

Stenros, J. (2015). *Playfulness, Play, and Games: A Constructionist Ludology Approach* [Doctoral Thesis, Tampere University Press]. http://tampub.uta.fi/handle/10024/96986. http://tampub.uta.fi/handle/10024/96986

Stenros, J. (2017). The Game Definition Game: A Review. *Games and Culture*, *12*(6), 499–520. https://doi.org/10.1177/1555412016655679

Sudnow, D. (1983). *Pilgrim in the microworld*. Warner Books.

Taylor, T. L. (2009). The Assemblage of Play. *Games and Culture*, *4*(4), 331–339. https://doi.org/10.1177/1555412009343576

Taylor, T. L. (2018). *Watch Me Play: Twitch and the Rise of Game Live Streaming*. Princeton University Press.

Veale, T., & Cook, M. (2018). *Twitterbots: Making Machines That Make Meaning*. The MIT Press.

Vectorpark. (2007). *Feed the Head* [IOS]. https://apps.apple.com/us/app/feed-the-head/id415138546