Quixotean Play in the Age of Computation

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The author proposes a rhetoric of computational play as a perspective for the analysis of the ludic in the Information Age. Combining concepts from the philosophy of information and postphenomenology with different theories of play, he argues that there is a play element shaping the cultural impact of computational media and that this kind of play is experienced as either submission or resistance to the pleasures of computation. Both kind of experiences help develop new forms of understanding and create the cultures of the Information Age. **Key words**: computational media; digital play; philosophy of information; postphenomenology

Introduction

We play with computers. From video games to gamification, one of the dominant modes of interaction with computers is playing. But why? A casual glance at the history of computing and play illustrates that most advances in computational machinery are driven by play-related applications to this technology—or lead to them. Video games, in particular, have often helped popularize new computing technology and techniques, like compact disks (*Myst*), three-dimensional graphics and their specialized hardware (*Return to Castle Wolfenstein*), and online video streaming (*Twitch TV*). From the Mechanical Turk, the seventeenth-century chess-playing automaton, to Amazon's Alexa, users find ways of playing with computers, and technology designers apply playfulness to increase user engagement with these products and to teach users how to apply new technologies (Ferrara 2012).

At the start, I wish to make clear that throughout this article I use the term "computation" in a very liberal way. Most of the time, I employ the word

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to describe the particular processes that computers perform. It is not my intention, nor do I have the expertise, to define what computation is. My superficial and limited understanding of computation derives from Denning and Martell (2015), who understand computing as a technology that "emphasizes the transformation of information" and that uses structures that "are not just descriptive, they are generative" (15).

I explore this close relationship between play and computation by considering ontological similarities between play and computation. I intend this exploration to serve as the first step toward a rhetoric of computational play in the manner of Brian Sutton-Smith's rhetorics of play (1997) informed by play theory, design research, and the philosophy of technology. My purpose is to analyze the particular relationship between play and computation and thereby evaluate the cultural benefits and risks of playing with computers. I want to establish a foundation for the study of the aesthetic, social, and cultural products that result from the combination of play and computation.

The question of the relation between play and computation nowadays seems crucial. Not only are we seeing the radical societal impact of computers as labor monitoring and surveillance machines but also as the privileged medium of entertainment and communication. Furthermore, play as a conceptual approach is slowly becoming a valuable paradigm in digital design (Gaver 2009). Computers can be understood as instruments for playful production and consumption. User interfaces, feedback systems, and entertainment forms based on play are taking over the computing machine to envelop its powers in a friendly, playful discourse. Understanding computers from the perspective of play provides us with an original insight about computational culture. More than ever, we delegate tasks to computers, and the interfaces to these machines have become more and more interactively and aesthetically playful. But what type of play do computers afford, and what kinds of alternative, empowering relations with playful computation might we establish?

I start by analyzing the shared characteristics of play and computation. The theories on which I ground this analysis of play and computation are the philosophy of information and postphenomenology (Ihde 2012), supplemented with concepts of play theory from Goffman (1961) to Sutton-Smith (1997).

In the third section of this article, I present the novel *Don Quixote* (2004[1615]) as a source of inspiration for the way in which play encourages a nuanced engagement with the entanglement of play and computation. Don Quixote's reflective madness serves as a productive lens for understanding the

creativities of computational play and its submissive pleasures. My position in this should not be read as neutral: I think that we need a form of play—quixotic, perhaps, or "quixotean" (to coin a new term)—to engage with the challenges of the Information Age, and this article provides the basis for my position. I hope to offer new perspectives in the study of computational media and computational culture, looking at them *sub specie ludi*.

Play and the Making of Worlds

To play is to create worlds together with other players and often with the aid of such props as games or toys. The play world exists within a larger world, in a social context to which it is related, but it is voluntarily and actively separate from it (Goffman 1961). Playing has the capacity to make worlds come into being within larger worlds and to give them meaning, giving meaning to a context, to the things with which we interact, and to the relations we establish with other individuals. Play creates worlds within cultures—ephemeral, negotiated, assembled worlds, but worlds nevertheless. Play has ontologizing powers, and this is why games are such interesting cultural devices—because they structure and formalize the ontologizing processes of play.

Play is not the only ontologizing activity that creates and shapes culture. In the romantic approach I have taken (see Sicart 2014), play is an aesthetic activity, a form of engaging with the world not determined by its direct utility but by its own purposefulness (Huizinga 1955). I therefore see play as part of the aesthetic human engagement with the world, related to the arts from literature to the visual arts (Laxton 2011). For example, Augusto Boal's Invisible Theatre (1985) or Allan Kaprow's performance pieces (1993) show how theater and performance arts also create worlds within this world that orient our experience. However, I will leave aside these aesthetic manifestations at the moment because the analysis of how the arts create these ontologies is beyond my current scope. In the future, I will apply the concepts I present in this article to inquire about the (ludic) aesthetics of computation.

What Huizinga called the magic circle—the sacred space where play takes place and has meaning—is nothing but a materialization of the ontologizing power of play. A football stadium is not only a physical space, it is also the world in which the activity of play makes sense and creates meaning. Similarly, the virtual worlds of video games are not just backdrops for telling stories or

structuring competitions, they are the contexts that affect the activity of play. They are worlds created and upheld by humans and machines intertwined in the collective action of play. All games create temporary, ephemeral worlds, with their own laws, citizens, and histories. Play theorists from Huizinga to Henricks (2015) have made this argument, and I am building on their ideas.

This ontological perspective of play allows me to start drawing parallels between play and computation. Computers have the potential of reontologizing the world, for revealing its being as an informational environment. Reontologization is a concept used by philosopher Luciano Floridi (2013), who proposes to define information and communication technologies like smartphones and computers as reontologizing technologies. His argument appears deceptively simple. Computational technologies transform the nature of the infosphere itself because they are information machines: "the ontology of the information technologies available . . . is the same as (and hence fully compatible with) the ontology of their objects, the raw data being manipulated" (7). Floridi argues that reontologization is the "source of some of the most profound transformations and challenging problems that we will experience in the close future, as far as technology is concerned" (6–7). Because we can argue that being is informational, and because computation and its machines help us reveal and constitute reality as informational in nature, computers create informational realities, or worlds.

Reontologization is a fundamental concept that nevertheless has received little attention. Reontologization refers to "a very radical form of reengineering, 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" (6). Computers are reontologization devices because they affect the nature of the informational environments in which we live by fostering "a transition from analogue to digital data" (6).

This statement requires framing some of our arguments in the tradition of philosophy of information, a philosophical theory suggesting that we define being itself as informational and that the whole of reality can be understood as collections of informational structures constituting personal relations, environments, and societies, to name a few. To be is to be informational, to exist in infospheres.

What is important about computation is how it reshapes the world to reveal its informational nature. Philosophers of technology like Wiener (1954, 1965), who places the intuition of information at the root of being, always keep a bio-

logical perspective, writing about human beings in cybernetic loops. However, the philosophy of information offers a more radical look at philosophical problems with its understanding of being as informational. This understanding places computing machines, which are inherently information-processing machines, at the center of its revolutionary perspective.

Reontologizing requires a new ontology. What was the previous ontology, then? Even though the comparison between these ontologies lies beyond my current scope, I will offer an example: in the computationally reontologized world, computers have agency that can be independent of human agency. Computers act in the world, with visible effects, and without humans intervening in the process, for example in the way they calculate credit scores or in a the way a mobile device selects an antenna signal when it is moving and searching for the best connection. Or, more critically, a computer virus running out of control shows artificial agency beyond the scope of human agency. These examples of the reontologized world (infosphere, in philosophy of information phrasing) suggest that the concept of agency needs to be extended to the artificial processes run by computers. To be more specific: reontologization happens at a gradient of abstraction (Floridi 2010), that is, within a set of observables for analysis. In this gradient of abstraction, computers have agency, but this is, of course, a result of the methodological tools used to frame the object of study. I am looking at a gradient of abstraction in which computation plays a role, for example, giving agency to computers.

I use only some of the critical concepts of the philosophy of information, instrumentalizing them for the study of the play element in computational culture. I appropriate several of its key concepts to frame my argument within the methodology of the philosophy of information (Floridi 2013). I accept the claim that being is informational and that computation and its machines are crucial devices in the creation of information-driven societies, cultures, and beings. More specifically, I adopt the concept of reontologization to explain how computation works within an informational ontology and how this connects it to the activity of play. My goal is to argue that some activities and technologies have reontologizing capacities: they are capable of constructing worlds and meanings by changing the nature of the world in which they are instantiated.

To understand the ontological capacities of computers and how they, too, relate to the capacity of play to be ontological, we need to understand how computers work and which characteristics of these machines allow them to assume reontologization properties. This presentation of computers may, I admit, seem

simplistic, but my understanding of computing machines derives from Petzold (1999) and, again, a deeper argument about computation lies beyond my current scope and is in any case unnecessary at this point.

I focus the following description exclusively on contemporary computing machines. Historically, computational devices have not always had the charateristics that give them their reonotologizing capacities, and thus my argument is limited to the culture and society affected by machines that do.

Calculation

When an individual first understands what computers can do at really high speeds, they may appear something magical rather than mere machines. However, computers only seem so. They are not in fact even very complicated. What they do, and they do it very well, is perform complex calculations fast and accurately. Originally, computers were human: people, mostly women, dedicated to complex calculations for statistical or ballistics purposes (Grier 2005). Calculating trajectories or projecting results of complex systems was then the role of computers, both human and mechanical. The technical development of computing machines traces the material embodiment of computation into devices with exponentially larger capacities for calculation at great speeds.

Storage and Transmission

One of the more common sentences used to describe computer memory to laypeople concerns its capacity to store books, the once premium form of valuable data storage. A computer can hold in its memory millions of books, and any other type of data, in the form of bits. The memory of a computer, although limited, is vast and tireless and can easily be transmitted from machine to machine, from storage device to storage device. Computers hold worlds of data and send them to each other with relative ease.

Sensing

In the short history of computing, computers have developed the ability to understand their environments through sensors that translate analog inputs into digital data. Computers are no longer grey boxes unaware of their surroundings. Even the cheapest machine is aware of context and can process the context in which it finds itself into data for use in its calculations. In other words, computers can sense the world and translate it into computable data. They exist in the world and can be programmed to perceive it.

Networking

Computers are not solitary machines. They can be linked in networks that connect them to other machines and extend their capacities. We live surrounded by these computer networks, webs of interconnected devices that transmit information to each other and perform calculations together. The networking capacities of computers makes them formidable machines that can be a single entity and multiple ones at the same time, which, of course, extend their calculation, storage, and sensing beyond their enclosure in discrete units.

All these characteristics of computers as computational machines inform their ontologizing capacities. What makes computing machines catalyzers of this reontologization process is "the fundamental convergence between digital resources and digital tools. The ontology of the information technologies available . . . is now the same (and hence fully compatible with) the ontology of their objects . . . in the reontologized infosphere, there is no longer any substantial difference between the *processor* and the *processed*, so the digital deals effortlessly and seamlessly with the digital" (Floridi 2013, 6). Computers turn the informational world into a digital environment, and they also afford particular interactions with that digitalized world, effectively reshaping the nature of the world.

To help us understand this reontologization, consider the characteristics of computers that affect the reontologization of the process. Computers store and process data very quickly. To do this, they need to be fed the data, that is, they need to be given models logically consistent and formal enough for computers to perform calculations with them. An important part of computer programming consists of this: designing formal perceptions of the world so a computer can store them as data and perform calculations with them. But, once again, unlike old computers, more modern machines perceive the world around them. Their sensors directly translate the world surrounding them into data, provided they have been given the adequate formal tools to process the data streams in question. So, linked together, computers offer entry points to a vast network, effectively reweaving the world into a mesh of infrastructures and routines (Galloway 2004).

Hence, I say computers are machines that reontologize the world, and in this sense, they are machines capable of creating worlds. Precisely for this reason computation and play are so similar: play is also world creating and it is also a reontologizing activity.

I call play a reontologizing activity because it has three characteristics that help it reshape the essence of the world. First, play is appropriative: to play is to

take over a situation, a context, a space, and a time and make them the scene or the instrument of play. Unlike classic models of play that call for magic circles that players step into (Consalvo 2009), our rhetoric of play argues it to be the act of forcing on the world the activity in play: not gently stepping into, but actively taking over the world. This act of appropriation is always contextual and open to negotiation: we do no take over the whole of an object—or the whole of a situation, but only those aspects we find interesting, relevant, and appropriate for our goals in the activity of playing.

For example, Molleindustria and Harry Josephine Giles's website, "Casual Games for Protesters," (2017) offers games specially designed to use the reontologizing capacities of play to create modes of political expression within organized protests. These games amplify the activity of protesters by using the scaffolding of games—the rules that structure the activity of protesting. These are games that appropriate protesting not to negate it but to augment it with the world-creating capacities of play.

Similarly, the worlds created in the games documented by Linda Hughes (2006) in her study of playground games show how children's games always create temporary worlds structured by rules constantly in flux, adapting to the needs of the community of players and to the shared goals of the activity. When playing their games, children create worlds with their own fluctuating stability, worlds that begin in the reontologization process afforded by rules but then yet modified during the interpretation of the process by a community of players.

This leads to the second characteristic of play: it is autotelic. Play has its own (negotiated) purpose. The purpose of appropriating the world is always negotiated, expressed, and applied to the situation or object play takes over. When this purpose has been met, the activity ends, and so does the appropriation process. To play is to play for something, which may or may not be fun. This purpose of its own is explicit, argued for, and not rigidly determined.

For instance, pickup games of basketball in public courts not only involve playing the game but also decoding the purpose of playing a game in a particular space. Some courts are open for casual play, some others are only for larger than life (but not professional) matches. And playing in any court also implies negotiating the purpose of playing, of joining that particular court and its teams. Negotiating the purpose of the game in this way determines what "fun" means in the particular space.

We hold as the third and last element in our rhetoric of play that play is expressive. To play is not to consume or perform actions in particular orders for

particular goals. To play is to produce, or to perform, actions in particular order with a personal touch, for a personal reason, as a form of personal expression. To play is to make a world in which our specific being is possible, meaningful, and creative (Sicart 2014).

Play can be defined as a reontologizing activity because it redefines the nature of the world and radically changes it. To play is to appropriate the world—to create *a* world where we can play, one where we engage in meaningful activity and where we can express ourselves. Such worlds have impact but no permanence beyond the activity of play.

This is how play and computation are connected: both play and computers have the capacity for reontologizing, for creating worlds of meaning and presence. Computers and play create worlds. This is why computers are used to play and we play with computers, because the essential ontological move is the same—the creation of realities in which to live. But how does this relationship affect our culture? If Huizinga's intuition was right and play creates forms of culture, then the widespread deployment of these ludic machines called computers must have had effects in our world that we may not totally understand.

Play and the Machines

I base the relationship I see between computers and play on their mutual reontologzation capacity to create worlds. However, this statement is too abstract to allow us much interesting inquiry into the nature of play and how it relates to computing. To better understand the role of play in the age of computing machinery, I turn briefly to postphenomenological theory to specify the importance of play in our experience of computers and how it helps shape the cultures of the Information Age. My goal is to use this postphenomenological perspective to illuminate the relationship between play and computers.

Postphenomenological theory is an extension of the classic phenomenological philosophy of technology (Ihde 1990). As its main contribution, postphenomenology offers a vocabulary for interrogating the mediating role of technology in the experience of the world. Postphenomenology describes (some) technologies as being multistable, that is, as not having an essence but as settling onto a form of being so experienced and a way of mediating the world when they are experienced (Ihde 2012). Postphenomenologists often use optical illusions like the Neckar Cube to explain this concept of multistability: only

when we focus do we stabilize such an object into a shape to which we can relate.

Ihde's claim that computational technology is multistable gives me a good starting point for focusing on the relationship between play and computation. The world in the Information Age is being reshaped by the ubiquitous presence of computing machinery, establishing all kinds of relations among them and with us, affecting the world in visible and invisible ways. The reontologization process that marks one of the characteristics of the Information Age is the process of giving presence and different levels of agency to these computational machines. From complex machines that learn algorithms to the more modestly calculating accelerometers (or consider the humble ATM and its robust case), computers have taken hold of the world and forced us to live with them.

The Information Age challenges us to learn to live with all these new technologies, with these computational agents that shape our environment. Like all technological revolutions in the past, the computation revolution requires us to develop new policies, new ethical theories, and new personal and collective practices. We need to learn new lives with technologies that act in the world, and that by doing so, change and shape the very nature of the world we experience. Smart homes surveil us, credit algorithms evaluate us, fitness trackers measure us, and video games entertain us. All of these require us to learn to use them, and that is where play enters the scene.

As I have stated, I am adopting Ihde's argument that computers are multistable technologies. To interact with these machines is to stabilize them so they can mediate our experience of the world. This stabilization process is both cued by the design of the technologies, by their affordances and constraints, and by our intentionality toward them—our using them to experience the world. Rosenberger (2009) provides a productive extension of Ihde and Verbeek's work by proposing the concept of relational strategy as "the particular configuration of bodily habits, intentions, and conceptions that make it possible for a person to take up a particular stable relation [to a technology]" (176). When we experience a computational technology, then, we have a set of relational strategies that contribute to the configuration of the technology-mediated experience of the world.

I propose that our rhetoric of computational play be based on the notion of play as a relational strategy that helps stabilize the multistable technologies mediating our experience of the world. From my perspective, play as a relational strategy allows us to use the history and knowledge we have of play as a set of practices that shapes our being in the world. But more interestingly, play, as I

have argued, also has reontologizing capacities. Play is a way of creating worlds, and thus it is an appropriate way to orient our experience toward technologies that also create worlds. We can view the rules that algorithms use to reontologize the world through the experiential lens of play, and we can design technologies that cue that relational strategy, that makes things want to feel like play.

This rhetoric of computational play might explain why "playful" is a cherished adjective among technology developers, why gamification is perceived as a promising approach to teaching and engaging with digital technologies, and why video games are such popular ways of presenting new technology like virtual reality and augmented reality. Play might help define the culture of the Information Age because it engages in the strange world of computers. But how does this relational strategy work? How does play help us shape our experience and the world-creating capacities of computational technologies? To answer that question, we need to go back to 1605 CE.

Quixotean Play

Introducing Don Quixote is almost unnecessary. Cervantes' novel, the story of a nobleman gone mad because he read too many chivalry books, is widely known for its portrayal of the stark contrast between Don Quixote's idealism and imagination (and lunacy), and seventeenth-century Castilian dryness and mundanity. Don Quixote kick starts the novel by voluntarily and foolishly inhabiting an imaginary world in permanent clash with the actual world.

However, a closer reading reveals that Don Quixote is far from a fool. Although the first book of the novel (published in 1605) often presents Don Quixote as a lunatic, the second book offers a more nuanced version of him. In the second book, he is familiar with the fact that his story has been written into a novel; he knows that people make fun of him; and there are even hints of his self-awareness of his own madness. In the sequel (published in 1615), Don Quixote is less optimistic and less prone to foolishness, and it is the world around him that is invested in driving him insane

A defining moment in the second book comes when the mad knight and his squire Sancho find the lands of two nobles who know of Don Quixote and actually help build and enact his fantasy world. The dukes play along with Don Quixote's fantasy, to the extent that, for the first time, the knight errant feels like he is actually living his fantasy. And this self-awareness proves the key to

understanding the beauty of Don Quixote: he may be a fool, but he is also more aware of his insanity than we might think. Indeed, he chooses madness as a way to deal with the world in which he lives.

In the company of the dukes, Don Quixote is living in a world of fantasy, yes, but it is not his world of fantasy, it is not his construction, his settings, his desires driving that world. He may be mad there, yes, but he also challenges this externally imposed madness. Most of the time, he plays along and even tells Sancho that he is aware of how these make-believe worlds work.

The world in which Don Quixote lives is a negotiated world between his deranged fantasy and the real world, between his creative engagement with the world (giants and not windmills) and the world that resisted this interpretation (windmills and not giants). And when his fantasy is finally fulfilled, when he finds a place where others have created the world that existed only in his mind, he hesitates and ends up bored and longing for a change.

The story of the dukes illustrates the fundamental tensions in computational play. It also suggests some of the problems from classic play theory involving the technical materiality of playthings. By facilitating a world that responds to Don Quixote's madness, the dukes do not cure nor help the knight, because in part his madness consists of constructive pleasures—the pleasures of appropriation. Don Quixote's madness thrives in the clash between reality and the imaginative re-creation of it.

Similarly, if we try to understand play exclusively as an activity, disregarding, in effect, its material context or if we analyze it exclusively through materials, disregarding the way these materials are appropriated in play, we will achieve only partial understanding of play and its role in structuring human experience. In the case of playing with computing machinery, it is fundamental to understand the role of materiality in the construction of experience, since we have two merging ontological processes.

To comprehend the complexity of play, I argue that we need to understand what I call Quixotean Play—or play capable of engaging with and appropriating reality, even as this reality, to a certain extent, resists such appropriation. To play is to establish a relational strategy toward a reontologized world, while the world offers a measure of resistance to that process. This tension requires negotiation, so to play with computers is to establish a relationship of submission and resistance—submission to the ontologizing process enforced by computation (the world created and upheld by the computer), and resistance to it (by developing new rules, interpretations, and contextual appropriations of that very reality

allowed by the computer). It is Quixotean play because, like it, Don Quixote also creates a reality, although Quixote does so in a negotiation of resistance with the material world that rejected his appropriation. In Cervantes' work, the most successful cases of Quixotean madness are those in which his reading of the world is still mad, but the resistance presented by the world nevertheless allows Alonso Quijano to be Don Quixote. Many of the conversations with Sancho fall into this category.

Play as a productive way of being in the world in the age of computing machinery could be defined by Quixotean play—this dance between resistance and submission of one reontologization process to another. Quixotean play is my way of framing this particular rhetoric of play. Quixotean play is not necessarily a revolt against the pleasures of computational play. There are particular, clear pleasures in engaging with computational play and submitting to it. The precision of computable rules, the delegation of a machine as play pal, are the pleasure of surrendering to computational play. However, Quixotean play thrives in an active dialogue between appropriation and resistance, between submission to the dictates of the technology, and resistance to those very dictates.

Quixotean play allows us to carve expressive spaces in the contexts created and facilitated by computing machinery. These spaces are sometimes places of submission, sometimes areas of resistance, and sometimes both. What they never do is grant epistemic invulnerability to the context created and monitored by the machine. Even if there is a computer running the rules and we do not have access to the source code, we can play with the computer, we can change the rules, we can appropriate the world given to us by the machine. Quixotean play is a way of understanding how to deal with the reontologizing capacities of play understood as a strategy to experience a world reontologized to allow for computational agency.

Classic play theory requires the situation of play to be epistemically infallible. The rules dictate what is real and what is possible, and things outside the rules either do not exist or are existential threats to the play activity. However, if we understand play not as a surrender to the epistemically unquestioned but as a negotiation of surrender and resistance or as a playful back and forth between technology and expression, we can better understand the role of computing machinery in the expression of modern play.

The deer cam in the video game *Grand Theft Auto V* presents an example of Quixotean play. A modder (a player who makes modifications to a com-

mercially released game) in the *GTA* community decided to substitute a deer for the main playable characters in the game. The deer wandered aimlessly in the vast world of *GTA*. This is a game created to tell a narrative and give players space to explore fantasies of machismo and violence in an ironic re-creation of the United States' West Coast. However, this modification of *Grand Theft Auto V* appropriates this world for a different playful experience, one that is absurd and contemplative, pataphysic, and metaphysic. Quixotean play, after all, is a submissive resistance to the world created and upheld by a computer machine.

Similarly, the proliferation of virtual assistants like Amazon's Echo or Google's Home devices has prompted some users to appropriate these technologies playfully. These assistants are supposed to be voice-controlled, intelligent interfaces with online services that have amicable personalities. However, some users have started exploiting their conversational capacities, making them chat to each other in another example of absurdist appropriation of the computational world (YouTube 2016). Don Quixote would be proud of the nonsensical chat between machines designed to listen and respond—but not talk.

This is the era of computing machinery, a time in which computers are redefining the ontology of the world. But this is also the era of playful expression, a time in which play has become a cultural, social, and economic centerpiece. Quixotean play can be a rhetoric for play in the age of computing machinery—an activity defined by the transitions between submission and resistance to the worlds created by computers.

To play is, then, to assemble a number of actors to re-create a world. If we take play as the dominant reontologizing strategy, then we become Don Quixote, capable of negotiating our madness, of submitting voluntarily to the pleasures of computational play because we know that at any moment we can rebel, resist, and claim our madness, and our play, as our own.

The Era of Quixotean Play

I have explored the relationship between computation and play and argued that both share reontologization as a core characteristic of their expressive capacities. In the Quixotean approach, I suggest play's reontologizing capacities are primary to the similar capacities of computation and, therefore, there always exists a negotiation of the submission or resistance to the computational pleasures of play. We might enjoy, like Don Quixote, living in a world created by and

for us but always only if we have control, the capacity to take over and negotiate this ontology. In this negotiation, the expressive capacities of play take over the materiality of computation and become Quixotean play—expressive, destructive, entertaining, dangerous.

In this era of computing machinery, where the world is interpreted, translated, served, and created by computation, we need to be like Don Quixote. We need to see that computational world as a world in which to play—a world in which computing machines are props for the expressive creations of realities. This could be the era of Quixotean play—the era of controlled madness, when we voluntarily lose ourselves in the worlds we create, knowing that we have created them and how we have created them.

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