# A Language of Play: New Media's Possibility Spaces 

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#### Abstract

This article sketches a theory to describe how play-like words and images-is a resource used by people to express attitudes, to share ideas, and to persuade others. This language of play is at stake at all levels of composing, including invention, production, consumption, distribution, and access. To make this case, this essay makes two large, over-arching claims in its description of play. First, play is symbolized non-discursively within magic circles, or rule-bound cultural sites where composers act strategically. Second, play is emphasized and enabled by specific characteristics of computable media that allow it to be symbolized through rhetorical forms such as memes, feedback systems, and avatars. In particular, the essay describes four possibility spaces for play that are opened by computable media. Play is endlessly repeatable, customizable, interactive, and radically variable. The essay concludes by offering a rhetorical definition of play specific to computers and writing and suggests possible pedagogical moves instructors might make to highlight the rhetoricity of play for students.


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How does play happen? How is it that a game board and a pair of dice, or a game program on a hard drive, or a baseball, a bat, and an empty lot somehow ramify into the experience of play-an experience of endless pleasure and variety that defies ordinary description?
-Katie Salen and Eric Zimmerman, Rules of Play
If we lose sight of how students are composing meaning in electronic gaming environments and networked systems, among other contexts, or which rhetorical representations and practices they encounter as they work in and around games, or what motivates them to teach and learn in these language rich venues, we run the risk of ignoring a whole arena of serious language use and play. If we pay careful attention to these sites and to the productive ways in which they overlap with our own area of study and teaching, we can open new arenas for understanding the very human acts of composing, creating, communicating, and, of course, engaging in serious play.
-Cynthia L. Selfe and Gail E. Hawisher, Rhetoric/Composition/Play

[^0]In an important 2004 Computers and Composition article, "Show, Not Tell: The Value of New Media Composition," Cheryl Ball distinguished between scholarship about new media and new media scholarship. While the former takes new media as its subject or object of analysis, it relies on print to advance an author's argument. Scholarship about new media appears in many of the field's flagship journals, such as College Composition and Communication, Rhetoric Society Quarterly, and Computers and Composition. New media scholarship, on the other hand, uses a variety of nondiscursive rhetorics (Murray, 2009)-such as image, movement, or sound-to compose arguments, and it is exemplified in the webtexts of online journals such as Kairos and Enculturation. Ball's invocation of the old creative writing adage, "show, not tell," effectively suggested the expressive possibilities of new media scholarship.

However, print-based scholarship has been and remains an indispensable and flexible means of doing academic work. Jay David Bolter (2001) described the current time as the "late age of print," or a time when print remains essential but may no longer seem so (p. 1). Print indeed remains crucial for rhetoric and composition even as the new media scholarship Ball described proliferates, in part because print's primary mode-discursive writing-is remediated by new media. Therefore, rhetorical theories in the late age of print must both attend to the implications of new composing technologies and remain mindful of print's many possibilities that are refashioned and repurposed by new media.

In this essay, I offer the concept of play as a valuable resource for rhetorical theory in the late age of print. Discussions of play are far from new to computers and writing research, as Albert Rouzie (2005) urged that the field should "begin to consider play as a significant rhetorical element of composition and communication" (p. 189). Indeed, the field answered Rouzie's call by considering how play is pleasurable and self-motivating (Gee \& Hayes, 2010), by creating playful classrooms where students may experiment and take risks (Hodgson, 2013), and by theorizing the procedural and expressive affordances of gameplay (Bogost, 2010). However, many such approaches have focused on play only at a particular point in the composing process, such as invention or even assessment (Colby, 2014). Here, I sketch a theory to provide teachers and researchers with a terminology to describe how play-like words and images-is a resource used by people to express attitudes, to share ideas, and to persuade others. Such play is at stake at all levels of composing, including invention, production, consumption, distribution, and access. I refer to this theory as a language of play.

Theories sometimes oscillate between viewing play as something objectively real or as something poetic or creative. Johan Huizinga (1938), for instance, in the same text claimed that play is "objectively recognizable, a concretely definable thing" (p. 46), and that play "creates a second, poetic world alongside the world of nature" (p. 4). Lately, rhetorical theory been tuned to a parallel track, as recent work has extended the domain of rhetoric beyond human symbol making into non-human objects and environments. Thomas Rickert (2013), for example, suggested an ecological theory where rhetoric is not only a human concern and in which humans "are posited not as masters of the earth but as corespondents and cocreators" (p. 186). Although it is beyond the scope of this article to fully explicate such complex moves in rhetorical theory, my reason for invoking it is to make clear in what sense I view play as rhetorical. In these pages, I take play to be rhetorical in that it is simultaneously something humans do and that environments have. The environments most commonly associated with play are the virtual environments of videogames, and these spaces are designed with deliberate rhetorical intent. In games such as Fat World, designers ${ }^{1}$ may author persuasive arguments through procedural rhetorics, which Ian Bogost (2010) described as "a general name for the practice of authoring arguments through process," such as the rules of videogames arbitrated through computer code (p. 29). Likewise, when people play within such composing environments (what I refer to in this article as magic circles) rhetoric emerges in a variety of forms that have potentialities such as moving emotions, sharing ideas, persuading others, and creating identifications.

## 1. Possibility spaces

Although play is, of course, not exclusive to new media, I argue that play is emphasized and enabled by the possibilities opened by computerization. To make this case, I borrow a few concepts from game design in order to clarify my argument: 1) play, 2) possibility spaces, and 3 ) magic circles. Here, I briefly describe these terms in order to align them with more familiar ideas from rhetoric and composition.

[^1]Like rhetoric, play is everywhere, and it is difficult to define. Brian Sutton-Smith (1997) persuasively argued that definitions of play embody deeply held assumptions of particular conceptions of knowledge (p. 6). Child development researchers, for example, may see as axiomatic the idea of play-as-training that helps young people develop skills needed in adulthood. This belief functions rhetorically by helping those researchers justify their truth claims and advance arguments. With this in mind, I do not believe it should be the goal in rhetoric and composition to arrive at a correct or stable definition of play, but instead to remain aware of what is signified and assumed by uses of the term play within our own scholarly contexts. Matthew S.S. Johnson and Richard Colby (2013), for example, noted the complications that can emerge from video game-based pedagogies that assume gameplay automatically equals fun, and that fun necessarily equals better learning (p. 84).

My goal is to conceive play in a manner that helps teachers and their students describe how play meaningfully shapes texts at all levels of production, distribution, access, and consumption. Following Ian Bogost (2008, p. 120), I suggest that Katie Salen and Eric Zimmerman's (2004) abstract definition of play as "free movement within a more rigid structure" is useful because it helps us to visualize how play shapes and forms texts within a variety of expressive mediums (p. 304). Salen and Zimmerman's definition of play has at least four implications for composition.

First, it implies that all kinds of materials have play. Salen and Zimmerman offered the example of gears in a car's steering wheel. The gear has a degree of "free movement" within the "more rigid structure" of the car's steering system. In other words, there is a degree of flexibility based on the possibility of how much the gear might move. For composition, it is useful to think of all materials as having play in this sense. Because all materials can be shaped as composers move through them, all composing materials can be playful. While this article will emphasize the potential for play in computerized media, it is important to remember that play is present and worthy of study in a wide variety of print-based and three-dimensional compositions.

Second, Salen and Zimmerman's definition suggests that different materials have different potentials and possibilities for play. This does not mean that any material is necessarily better or worse, but that they are shaped differently and with different consequences from play. Take, for example, the play of a $2 \times 4$ piece of plywood versus the play of an $8 \times 11$ piece of paper. These materials will be visibly affected by and exhibit play in different ways, but they will both take on different shapes as they move. In terms of composition, we can imagine the various shapes an object takes as the possible forms of its play.

Third, it means that play can be dangerous, and this is a point worthy of special emphasis. If we were to imagine two tall structures-skyscrapers, for example-one made of wood and the other made of steel, the materials composing these structures allow for different amounts of play. In this instance, walking across the more playful structure would be exponentially more dangerous. A long-standing association between play and learning is that learning through play is safe, an idea often referred to as "sandbox learning" (Gee, 2007, p. 39). There is, of course, a degree of truth to such claims, particularly within the context of gaming. Jesper Juul (2013) has recently pointed out that contemporary games tend to lower the cost of failure and thereby encourage more experimentation and reflection (p. 87). However, I contend that any concept of play for rhetoric and composition should acknowledge the risk involved when composing, because the act of composing nearly always entails some form of risk.

To illustrate this point, consider the proliferation of videogame-based pedagogy in rhetoric and composition. ${ }^{2}$ Although James Paul Gee (2003) previously argued that the "issue of violence and video games is widely overblown" (p. 10), it has recently become clear that issues of inclusion and violence, particularly concerning women and transgendered people, remain quite troubling in both fan culture and the gaming industry. Recently, game designers Zoe Quinn and Brianna Wu, as well as feminist critic Anita Sarkeesian, have been subjected to threats of violence and rape by "trolls" following an online discussion known as \#gamergate. Although many supporters of \#gamergate claim to seek ethical standards in gaming journalism, many have noted that some users of the hashtag participate in misogynist harassment of women. In an article for "Jezebel," for instance, Jennifer Allaway (2014) characterized \#gamergate as a hate group. In my mind, what this conversation around \#gamergate makes clear for the field of computers and writing is that teachers have an ethical obligation to consider and discuss with students the potential risks involved in engaging with online platforms through play. Even asking students to "simply" play and analyze games that do not have a specific online component creates the possibility for them to engage with fan communities

[^2]in the form of message boards, online strategy guides and walkthroughs, and even live streams of gameplay enabled by the current generation of gaming hardware. Although such a move creates many pedagogical opportunities and possibilities, it is crucial that teachers understand it also may put students at risk of threats and harassment.

Fourth, Salen and Zimmerman's definition of play suggests that rules and restrictions be conceived as opportunities for creativity and expression. In game design, the potential movements of play within any rule-based system are referred to as a possibility space, which includes "all of the gestures made possible by a set of rules" (Bogost, 2008 p. 120). Games with different types of rule structures create variable possibility spaces for play (Juul, 2005, p. 75). Although game designers intentionally create such possibility spaces with the rules enforced through algorithm and automation, gamers push back, expand, and exploit such rules through creative and strategic gameplay. Jane McGonigal (2011) took this capacity of gamers to compose within and against possibility spaces as the defining characteristic of games (p. 21).

Going back to Salen and Zimmerman's (2004) concept of play as "free movement within a more rigid structure" (p. 304), we can say that play happens whenever people act within any rule-bound structure. I contend that any composing material or medium can be productively conceived as a rule-bound structure with varying possibility spaces for creativity and strategy. In this sense, all composing materials simultaneously enable and constrain play, and play becomes meaningful when it moves through various rule structures to give shape to a composition. The idea of possibility spaces as giving meaning to play has been referred to as the magic circle ${ }^{3}$ of a game space. For Salen and Zimmerman (2004), a magic circle "frames a distinct space of meaning" p. 95). For instance, while swinging a bat is a form of play, that play takes on different meanings within the magic circle of a baseball game, as opposed to a game of cricket, or as opposed to a videogame where players control avatars that attack one another with bats. If magic circles frame particular possibility spaces of meaning, and if "videogames are an expressive medium" (Bogost, 2010, p. 1), then magic circles might be productively conceived as framing the possible meanings created through media more broadly. I propose that we think of magic circles as compositional mediums, as a culture's writing spaces. Media, by restraining some kinds of activities and making others possible, enable composers to unleash their creativity and act strategically for rhetorical purposes. In short, different mediums create different possibility spaces for rhetoric, language, and play.

The magic circle of a printed medium, like Computers and Composition, includes such rule structures as word limits, headings, and conventions of genre and style that constrain how the discursive mode can potentially operate within the journal's possibility space. Composers unleash their creativity and rhetorical prowess by composing arguments within the writable spaces of print journals. The diversity of articles and approaches manifested in a journal like Computers and Composition suggests the play enabled by its magic circle. The wealth and variety of knowledge in even a single journal is illustrative of the possibilities enabled by print's space. In other words, seeing media as magic circles suggests that scholarship about new media and new media scholarship are invented within different possibility spaces, and such a move asks us to think of media similarly to the way rhetorical theorists think of genre. Just as scholars such as Anis Bawarshi (2003) have described genres as "sites of interaction" (p. ix) that simultaneously enable and constrain invention, that simultaneously act and are acted upon by composers, I suggest that computers and writing scholars think of media as simultaneously enabling and constraining composers in ways that create possibility spaces for play.

What, then, are the possibility spaces of new media? In the following pages, I make the case that as people play with new media, their play gives shape to and creates form within its possibility spaces. Moreover, like within any magic circle, that play becomes meaningful within different types of media. In other words, human play becomes symbolic of rhetorical actions, embodying such things as human emotion and intention through the various playful forms made possible by new media. I further suggest that such symbolic play can be characterized as follows: 1) primarily (but not exclusively) non-discursive, and 2) emphasized and enabled (but again, not exclusive to) computerization.

[^3]
## 2. Symbolic play and the non-discursive

In this section, I briefly describe what I mean by characterizing play as primarily non-discursive. I do this by drawing a few concepts from Susanne Langer's (1942) Philosophy in a New Key, where she usefully extended Saussure's semiotic theory to include art and aesthetics. Here, I borrow two concepts from Langer for my description of play's meaning-making potential: 1) signs vs. symbols, and 2 ) discursive vs. non-discursive form.

First, Langer distinguished between sign and symbol, which is a departure from semiotic theory more broadly. Following Saussure's (1972) claim that "a linguistic sign is not a link between a thing and a name, but between a concept and a sound pattern" (p. 66), Langer assumed that signs stand for mental concepts of things rather than things. Also like Saussure, Langer saw signs and concepts having an arbitrary and unmotivated relationship. However, although Saussure rejected the term symbol ${ }^{4}$ due to its connotations with the arts, Langer positioned the symbolic as central to her theory of the human mind.

In Langer's theory (1942), signs and symbols were described as having different meaning potentials. A sign "indicates the existence-past, present, or future-of a thing, event, or condition" (p. 57). In other words, ashes in a fireplace mean that something has been burned, or a thunderclap signals the presence of a storm. For Langer (1942), this type of signification took on meaning primarily through experience and is the basis for some forms of animal intelligence, such as behavioral explanations of dogs learning through punishment, reward, and reinforcement (p. 59). Signs signal particular kinds of meaning: rising smoke signals a fire; barking signals that a dog is near.

Symbols, on the other hand, are "vehicles for the conception of objects" (Langer, 1942, p. 61). Although signs relate directly to concepts, symbols connote indirect and associative meanings about concepts. A symbol does not necessarily mean an object, but it instead evokes a conception about that object. To say that humans think symbolically in Langer's terms is to understand something about the emotional experiences people have with language. Although rising smoke might signal a fire, it might also remind me of my grandfather's pipe and lead me to reminisce about his old fishing stories. I take play to be symbolic in the sense described by Langer, as evoking a mental conception about objects, things, people, and events in the world, or what Johan Huizinga (1938) referred to as the play-concept. ${ }^{5}$ Throwing a ball is not only a sign that baseball is being played. From a baseball, I may also experience associations drawn from the feel of thread on my hand, the sound of rawhide against leather, or the smell of an old mitt.

Second, Langer (1942) distinguished discursive from non-discursive symbols. According to Langer (1942), "Language has a form which requires us to string out our ideas," a formal property of verbal symbolism she referred to as discursiveness (p. 81). Discursive symbols articulate meaning temporally as words accumulate into complex chains. Due to the way discursive meaning is experienced across time, it is useful for making arguments, for following logical chains of reasoning, and for building theories. Langer's (1942) insight provides an apt means for describing the predominance of discursive form in academic circles, as discursive symbols create large possibility spaces for academic production. The non-discursive, while articulate-meaning it can express, communicate, emote, and advance complex thoughts-is "altogether different from the laws that govern" the discursive (p. 93). Although discursive forms tend to operate in time and break complex ideas into more simple ones-imagine an art critic discussing Picasso's Guernica by breaking it into smaller pieces for analysis-non-discursive forms tend to operate spatially and are experienced all at once, such as Guernica itself. In other words, some ideas are not particularly well suited for discursive form, but they can still be symbolized and shared.

I contend that play can be fruitfully described as a form of non-discursive symbolization. When humans play, they express ideas, share attitudes, and persuade others through a variety of symbolic play forms. Symbolic play forms-such as carnival masks, avatars, memes, and videogames-are capable of articulation, but often create meanings in the emotional, associative, "all-at-once" way Langer has described. Joddy Murray (2009) extended Langer's remarks to argue that non-discursive forms should be understood as language. According to Murray (2009), "As long as the term 'language' is only associated with discursive text, it cannot take advantage of all that image and emotions bring to

[^4]rhetorical texts and their production, much less handle the challenges of hybrid texts that incorporate many modes at once" (p. 2). By limiting language to the discursive, rhetorical theory's inquiries into language and communication may fail to account for the range of symbolizing practices used by composers. Although discursive form is both robust and essential to rhetorical practices today, some ideas may be better expressed through non-discursive symbolizations of image, sound, and play. ${ }^{6}$

In the next section, I describe the ways play's symbolic forms are emphasized and enabled by computable media. Although play is, of course, not limited to new media, I argue computation in particular creates particular possibility spaces for a language of play.

## 3. New media's possibility spaces

In this section, I point to examples of play by analyzing multiple forms of symbolic play enabled by new media. Although new media has become an important research area in rhetoric and composition, competing definitions remain. As I see it, such conversations may not require absolute resolution, and it may not be necessary for the field to agree on a single definition. Instead, what is needed is an awareness of the functions various definitions serve, what kinds of composing practices they enable and constrain, and well-reasoned justifications for adopting particular definitions in specific contexts.

Some definitions, for example, are inclusionary and work for well valuing many different kinds of textual products. Anne Francis Wysocki (2004), for instance, argued that new media texts should include all those "that have been made by composers who are aware of the range of materialities of texts and who then highlight the materiality" (p. 15). This definition is inclusive because it does not require an institutional infrastructure built around computer technologies to support expensive hardware and software, and because it defines new media in terms of composers' material awareness. Moreover, Jody Shipka (2011) argued that narrow definitions of the term technology may fail to account for a wide variety of literacy practices (p.31). According to Shipka (2011), composition theory should leave room for "texts that explore how print, speech, still images, video, sounds, scents, live performance, textures (for example, glass, cloth, paper affixed to plastic), and other three-dimensional objects come together, intersect, or overlap in innovative and compelling ways" (p. 8). Taken together, Wysocki and Shipka's conceptions of new media composition enable a wide range of textual products by heavily emphasizing media composition and deemphasizing new.

As Bill Cope and Mary Kalantzis (1999) argued in Multiliteracies: Literacy, Learning, and the Design of Social Futures, all texts are multimodal to some degree, as even print-based, discursive writing appeals to multiple senses such as mental imagery (p. 192). With this in mind, competing conceptions of new media can differ in terms of degrees of emphasis regarding multimodality. Some approaches have focused on the capacity of new media to produce and distribute texts that require multiple literacies and that take risks, disrupt conventions, or create new knowledge by combining modes into non-linear, juxtaposed texts (Ball, 2004; Sirc, 2002). Such approaches are especially effective for connecting new media with the arts and the avant-garde.

In this article, I am privileging a conception of new media that relies on computation. Specifically, I use Lev Manovich's (2000) definition of new media as the use of computers to "record, store, create, and distribute" media (p. 20). This is not to suggest that rhetoric and composition as a field should define new media in terms of computerization or privilege digital compositions. Instead, I claim only that computability is an effective means of connecting composition with play due to the possibility spaces made open by new media. Specifically, Manovich's definition highlights how computability influences all stages of communication, including production, consumption, distribution, storage, and access. I find this emphasis appealing because conversations of play are often limited to a single stage of the composing process, such as invention. Manovich's emphasis on computability creates the possibility of effectively describing play at every stage of composing. In particular, I argue that computational media create at least four important possibility

[^5]spaces for play. In these possibility spaces, play 1) creates endless repetition, 2) adapts and is flexible to customized situations, 3) interacts with non-human things, and 4) makes variation prolific and inevitable.

### 3.1. Endless repeatability

First, play is symbolized as a result of the endless mixing of media objects made possible by new media's computability. According to Lev Manovich (2000), the new media revolution arose out of two parallel movements: the development of modern media and the development of computers (p. 23) As modern media were being developed to store modes like image and sound, numerous mechanical tabulators and calculators were also being invented to handle large amounts of information. The core of Manovich's argument was that media became "new" when these parallel movements met: all existing media can be translated into numerical data. This means they are stored, accessed, produced, and distributed through computers, a singular device where all modes and mediums meet. Defining new media in terms of computerization allowed Manovich to usefully distinguish between old and new media and to define specific characteristics of new media that, I argue, create large possibility spaces for a language of play. As a resource for meaning, play-like image, sound, and movement-is recorded, stored, accessed, and distributed through computerized media in the form of multimodal textual products like videogames.

The first defining characteristic of new media is numerical representation. A critical part of new media's newness is that it can be described with binary code and manipulated with software. For example, an old media object-a photograph of my father, shot on a camera and developed from film-can be scanned and stored on a computer numerically and then changed with image-editing software. Through this process, a photograph of my father becomes a new media object. This makes it possible for a user to manipulate images through a variety of software functions, such as cropping, resizing, or changing colors without damaging or destroying the original. Notice that this does not mean new media is defined by technology. All media require technology for production, storage, and distribution. However, whereas old media have specific devices designed for their own purposes, new media all operate through a single device: the computer, and they simulate old media with software (Manovich, 2013, p. 113).

The numerical representation of new media creates a large possibility space for a language of play by enabling endlessly repeatable symbolization. Because various media objects are all composed of numbers, they can endlessly play with each other: in other words, they can move about relatively freely within each other's magic circles. This, I argue, is one way play is symbolized, and an excellent example can be seen through image editing enabled by websites like Yearbook Yourself (YY), a commonly-used website that allows users to upload photographs of themselves or friends and then replace the face of stock yearbook photos as far back as 1950. The images users create are easily sharable and require no sophisticated knowledge to produce, and they are often found on social media sites.

The images are clearly meant for amusement, and many people use them as joke avatars on social media. The images are communicative through their emotional appeal. They create a shared jive between friends through commonplaces about typical fashion and appearance. Further, they also make not-so-subtle digs at hair and dress styles from different eras. Play emerges in YY from the mixing of contemporary faces with old hairstyles, poses, clothing, and it takes on the endlessly repeatable forms of these playful images. Because play is a resource for meaning, the symbol making that happens through YY can express many different ideas and emotions: my own face beneath a flock of seagulls becomes a laugh between friends, a way to poke fun at myself, or a way to reminisce about fashion sensibilities of yesterday.

Remember that I have previously stated that Salen and Zimmerman's (2004) definition of play as "free movement within a more rigid structure" is useful because it helps us to visualize how play shapes and forms texts within a variety of expressive mediums (p. 304). Image editing such as YY illustrates how the computer-as-expressive-medium creates a large possibility space for such play as a result of its numerical representation of media. Remediating photographs of myself and of another person from an old yearbook through computerization, YY images bring together and hybridize the "more rigid structure" of individual instances of the photographic medium more or less endlessly. Subjected to the "rule structures" of computable media, which allow the information of individual images to swap place and mix, the possibility emerges for users to endlessly repeat and iterate YY images, a symbolic form of play (Figure 1).

The possibility space for play's endless repeatability is perhaps most clearly illustrated through the modifications gamers make to videogames and virtual environments. Similar to the process of swapping information from one digital image into another for YY photos, the numerical data used to render computer-generated videogame images allows users to create endless modifications to the appearance of their favorite games. For example, take the popular game


Figure 1. Yearbook yourself example.
mod known as Super Macho Man Skyrim, shown in Figure 2. In this mod, a user has replaced all images and sounds of dragons in the fantasy RPG game Skyrim with images and sound bytes of former professional wrestler Macho Man Randy Savage. Although the game's rules and procedures are unchanged, such a modification can theoretically be made with endless combinations and variations, and this enables users to share their own comical versions of games with others online. Although the rhetorical move of creating modification such as Super Macho Man Skyrim is endlessly repeatable, it also serves to make the experience of replaying favorite games just as repeatable, because people all over the world can share experiences through a wide range of offbeat games played time and again in different versions. Although a gaming modification such as Super Macho Man Skyrim takes more technical sophistication than Yearbook Yourself, both examples illustrate clear instances of the possibility for endless repeatability made open for play by computable media.

Play can, of course, be similarly symbolized through old media. I can remove my own face from a photograph and layer it over another, which is a composing practice enabled by technologies such as scissors and tape. However, conversion of those photographs to new media through computerization means I can play with those images again and again without destroying the originals. Moreover, the computer-as-storage-medium provides me with a large disposal of new media objects for play, because YY's database is likely much larger than the collection of old media photographs a typical person might own. In this way, new media creates a specific possibility space for the creation of play's many symbolic forms. Though play is not limited to computability, the jokes, jives, and self-deprecation expressed through something like YY become endlessly repeatable.


Figure 2. Super Macho Man Skyrim.

### 3.2. Hyper customization

Second, play is symbolized through customized media objects made possible by new media's computability. According to Manovich $(2000,2013)$, old media and new media operate according to different cultural logics. He argued that modern media objects emerged during the Industrial Revolution and thereby reflect cultural practices and ideologies of the time. Operating according to the "logic of the factory," modern media tend toward standardization and mass production. For example, 1890s cinema projected images that were standardized according to size and contrast, and it was mass-produced by making many identical copies of the master. New media objects, according to Manovich (2000), follow "quite a different logic of post-industrial society-that of individual customization" (pp. 30-31). The customization logic embodied by computable new media objects, I argue, creates a large possibility space for a language of play by enabling composers to customize texts for various rhetorical purposes and situations. In other words, play is symbolized when various composers repeatedly customize the same texts as they work toward many different rhetorical goals. When I customize a new media object for my own purposes, that object has been shaped and composed by my play.

This customization logic is made possible by the modular structure of new media. New media's modularity means that individual media components can be swapped or deleted without the whole being affected. For example, a user composing a graphic in a design program creates multiple layers in order to assemble her final image. One layer might contain the color of the background, while another layer can have an image and another can have text. Although the file is eventually flattened into a single piece of media with all those elements, individual pieces can be removed or changed without destroying the others. So, even if text is layered across the top of the image, the text can be removed without taking out the part of image or background it overlays. In his more recent work, Manovich (2013) pointed out that, through the use of layers, a composer can "play with these elements, deleting, creating, importing and modifying them, until s/he is satisfied with the final composition-or a set of possible compositions that can be defined using Layer Groups" (p. 142). Although old media tend toward mass production and reproducibility, the modular structure of new media enables possibilities of customization and flexibility through play.

The customization logic of new media, enabled by modularity, creates a large possibility space for a language of play because it allows composers to adapt an object for many different rhetorical purposes and situations by swapping its media parts, the "more or less rigid" rule structures of its magic circles. One good example of this is the meme. The use of memes online is typified by practices where users take a common image and compose on top of it, making a joke that is imitated, customized, and shared across social media platforms. Such memes become popular and take on their own personas, such as the well known "lame pun coon" featured in Figure 3.1 and Figure 3.2. Users invent new jokes by imitating the form and style of previous memes. Layers, enabled by the modular structure of new media, make such play possible.


Figure 3.1. Lame pun coon 1.


Figure 3.2 Lame pun coon 2.

The meme is as commonplace as it is playful, but it is also capable of making complex rhetorical statements. Some scholars have begun to pay attention to the form, such as in Jeff Rice's recent article in College English, "Occupying the Digital Humanities," where Rice analyzed a well-known photograph from the "Occupy" movement in which an officer is depicted pepper-spraying students at the University of California-Davis. According to Rice (2013), the photograph is a "digital moment" because of "how it is largely informed by a specific digital and media logic" (p. 364). The memes produced out of the original photograph, which include anything from texts making fun of the incident to "Photoshopping" the officer into famous photographs or paintings, are examples of the customization logic that is enabled by modularity and in turn emphasizes and enables play.

The possibility space for play created by new media's modularity is locatable in the swapped layers between particular objects as they are imitated, customized, and shared with the help of software. ${ }^{7}$ Through such practices, composers adapt any given object for various rhetorical purposes and situations, as the meme is capable of generating anything from a joke to serious political commentary. The form of a meme is made as the magic circles of other modes and media trespass one another through their play. This allows many new and different texts to be invented and used for any number of purposes. Any individual composer's play is symbolized through the customized form the text assumes. Although composers have always had the ability to write a joke on top of an image, the computerization of media means that all of that text and image are stored, accessed, produced, and distributed through the same technology. Because of this, players are able to easily compose and share such texts as the meme. Although play can be symbolized through the mixing of image and text in old media, its symbolization is emphasized and enabled by the modular structure of computerized media because users can readily customize the same text for their own whims, intentions, or senses of humor. This means the Internet is filled with countless playful texts like the lame pun coon and riffs on popular videogames in the form of Super Macho Man Skyrim that make statements about a wide variety of topics and transform moments of play into so many customized symbols.

### 3.3. Alien interactions

Third, play is symbolized through feedback systems between human agents and non-human entities made possible by computerization. This possibility is enabled by the third characteristic of new media, which is automation. Because new media objects are both numerical and modular, "many operations involved in media creation, manipulation, and access" can be automated (Manovich, 2000, p. 32). This means that at least some human intentionality can be removed from the creative process of new media objects. Features such as the interface, design, and even content can be partially generated through algorithms that respond to user activity. Websites such as Amazon and Facebook use algorithms to aggregate user data and then customize the appearance of the site for purposes such as marketing particular products or making the site user friendly. ${ }^{8}$

The responsiveness of computerized media, enabled by automation, transforms user activities such as clicking links, downloading products, or performing web searches into the symbolic form of a website claiming to be composed of, by, and for the user. Automation enables new media objects to self-organize as though they reflect the user's motivations. Such automated activity both attempts to simulate genuine human-to-human interaction and to create the feeling that everything on screen is about the user's needs. The feedback systems of videogames provide good evidence of those rhetorical functions of automation. Videogame feedback systems both communicate information to players and aim to elicit an emotional response. Game designer Jane McGonigal (2011) suggested that a feedback system:
tells players how close they are to achieving the goal. It can take the form of points, levels, a score, or a progress bar. Or, in its most basic form, the feedback system can be as simple as the players' knowledge of an objective outcome. "The game is over when. . ." Real-time feedback serves as a promise to the players that the goal is definitely achievable, and it provides motivation to keep playing. (p. 21)

[^6]

Figure 4. Super Mario Galaxy.

For McGonigal (2011), a game's feedback system is an incredibly powerful mechanism for creating pleasure because it creates a tight loop between the user's input and the system's response (p. 24). In other words, the feedback is nearly instantaneous, and this serves to both keep the player up-to-date about her progress and to provide a near-constant state of stimulation. In A Casual Revolution (2012), Jesper Juul expressed similar sentiments. Juul argued that games are successful in eliciting positive emotions in players through "juiciness," a quality of feedback systems that respond almost immediately to player input with bright colors, sounds, and movements (p. 30). Moreover, as Juul (2012) pointed out, game designers intentionally design juiciness into games to communicate with their audiences. For instance, take the near-constant feedback in a game such as Super Mario Galaxy, shown in Figure 4. Nearly every input made by the player causes Mario or something in his environment to squeak, flash, or erupt with sound and effects.

As Juul (2012) pointed out, such feedback systems communicate a kind of emotional inflection and help players identify with different styles of games suited to their tastes and preferences. Anything from the game's cover art to the sounds Mario makes when executing a triple jump is designed to emotionally engage and communicate with players. Videogame feedback systems are symbolic forms of play because they embody player's motivations, identifications, and skill levels with those games as players move their avatars through virtual space. Such symbolic forms as feedback systems are enabled by the automation of computerized media.

One pedagogical implication of the automation of new media, and the possibility space it creates for play, is that teachers should emphasize critical literacy with respect to the automated feedback systems of new media objects such as videogames. To understand why, it is useful to turn to the field of visual rhetoric, because many have already argued that critical literacy is crucial for visual mediums like photography due to ideologies that influence their production, distribution, and consumption. Philosopher Berys Gaut (2010), for instance, described the "ontological realism" often attributed to photographs. According to Gaut, "Photographic images are not transparent, but it can sometimes strike as if they were, i.e. as if one were looking through a window onto a fictional world" (2010, p. 248). In other words, photographic images sometimes resonate with people as unmediated, objective replications of reality. In reality, such images are composed and rhetorical as such, and this creates the need to teach critical literacy skills with respect to such images to help students gain awareness of their subtle persuasive appeals.

Automated feedback systems are also rhetorical, and their rhetorical power is often put to use to further educational, corporate, and political agendas through the practice of gamification. Though a contested term, gamification is most often defined as "the use of game mechanics and experience design to digitally engage and motivate people to achieve their goals" (Burke, 2014, p. 16). According to Brian Burke, "Gamification creates entirely new engagement models, targeting new communities of people and motivating them to achieve goals they may not even know they have" (p. 14 emphasis added). Gamified systems most typically take "game-like" forms such as points, badges, and trophies meant to reward players for reaching certain achievements. Many game designers have taken issue with gamification and argue that it is ultimately an anti-game phenomenon that misconstrues the expressive potential of games. Ian Bogost, for example, suggested that well-designed games should be reciprocal. This means that player input and decision-making actually do matter. For Bogost (2013), gamified systems are exploitative because they rely on false reciprocity. In other words, their feedback systems communicate to players that their input matters, but the system itself is designed purely to serve a larger corporate or political agenda (p. 146).

For example, take the Decision Points Game at the George W. Bush Presidential Library in Dallas, Texas. This exhibit is designed to allow visitors-especially children-to play the scenarios George W. Bush faced during his presidency as a game. Such scenarios include "The Threat of Saddam Hussein." Players navigate the gamified exhibit's interface to solicit advice from high ranking political experts, and they ultimately decide which action they would have chosen as president when it concerns the Iraq War. The choices they make include options such as "Take No Action," "Seek U.N. Resolution," or "Lead International Coalition." Just like a game, players get automated feedback on their decisions. If the Decision Points Game were fully realized as a game, those decisions would actually influence the game's outcome. However, no matter what input the player gives, the gamified exhibit always ends with a video of George W. Bush explaining why the invasion of Iraq was indeed the correct decision.

In my mind, this is precisely what Ian Bogost means in claiming that gamified systems are exploitative. They use game-like feedback systems and mechanics to give the user the feeling of a reciprocal interaction that is absent. Further, Bogost (2010) suggested that the concept of interactivity might be usefully considered in relation to the Aristotelian enthymeme (p. 43). Just as the enthymeme omits a proposition in a syllogistic structure that is deduced by the audience, videogames have a "simulation gap" between game processes and the player's understanding of those processes (p. 43). For example, in a puzzle game such as Braid, players understand how the puzzle works in any given level in order to solve that puzzle and progress through the game. Between the actual computational procedures that make the game function and the player's experiences of the game, there is a space where the player slowly reveals the game's processes through play. For Bogost, the moment when the player has a flash of insight to unlock the puzzle is akin to the enthymeme because the player has filled the simulation gap through participation in the game's procedures and processes, just as a listener of oratory fills in the missing proposition of an enthymeme.

The point is this: just as an enthymeme can be rhetorically powerful by giving an audience member a sense of participating, or even of arriving on their own to the speaker's persuasive point, the simulation gap in games can provide the player a powerful sense of accomplishment and identification with the game because they have arrived there seemingly on their own. Just as a speaker actually guides her audience members in the way she constructs her enthymeme, game designers also guide players through the way they construct game processes. By mimicking the simulation gap of videogames, The Decision Points Game attempts to create a flash of insight for players where they feel as though they have-through their own input and choices-arrived at the decision that the Iraq war was just. This, in my mind, is why it is crucial to understand the rhetoricity of play as scholars and to teach critical literacy of play and games to students: so they might become aware of how such systems as The Decision Points Game both target and attempt to motivate them to achieve goals and arrive at beliefs of which they are, apparently, blissfully unaware.

The automation of computerized new media creates a large possibility space for a language of play because, as users navigate virtual space, feedback systems compose responses that appear to embody the user's own motivations and beliefs. Such a realization creates a powerful exigency for the cultural and rhetorical analysis of automated feedback systems that are a hallmark of videogames and common to many other types of new media objects as well. Just as students need rhetorical training to understand how persuasive appeals work in spoken and written forms like speeches and essays, critical literacy of how automated systems make rhetorical appeals is critical to understanding computerized media. While Collin Gifford Brooke (2000) stated that digital technologies participate in rhetorical exchange through the simulation of rhetorical action, I contend that play is one example of a rhetorical action simulated by computerized media.

### 3.4. Variable assemblage

Fourth, play is symbolized by the variety of forms and experiences of new media objects that inevitably emerge as a consequence of their storage in databases. According to Manovich (2000), because a new media object can be stored and accessed through computer databases, "it is not something fixed once and for all, but something that can exist in different, potentially infinite versions" (p. 36 emphasis added). Old media objects tend toward standardization, but can, of course, also be customized. For example, consider vehicles mass-produced on an assembly line from a prototype. Although they are assembled in terms of a single type, any particular car can potentially be customized to the needs of individual consumers. Customization, then, is not what makes a new media object new. Instead, their storage in databases means such variation is inevitable. Because users access database content through a variety of platforms and devices, that content will always be assembled and experienced in a variety of forms.

The variability of new media creates a large possibility space for a language of play by enabling users to assemble many different versions of the media object suited to their own means of access. Through phasing ${ }^{9}$ and periodic updates, users assemble a variety of texts that reflect their particular needs and circumstances based on the devices they use. Although both old and new media are capable of variation and flexibility, one consequence of new media's computability is that any statement about an object's singular form or meaning is ambiguous due to the variety of versions that are generated almost constantly. This means that to analyze such a new media text is to analyze it as individual users move through it. In this sense, play creates potentially infinite customized versions of new media texts.

One symbolic form of play that illustrates this aspect of new media is the digital avatar. Avatars have been the subject of some research and scholarship in rhetoric and composition. In Computers and Composition, for instance, Jennifer deWinter and Stephanie Vie (2008) outlined a pedagogical approach that uses avatar creation in Second Life to engage students in questions of subjectivity formation in virtual spaces. From the premise that "avatars operate as projects of one's own self" (deWinter \& Vie, 2008, p. 316), students attempt to compose the self in Second Life in order to raise questions about how issues of race, gender, disability, and intellectual property are inscribed through avatars. I would extend deWinter and Vie's position slightly to suggest that an avatar is an interface, a composition that is simultaneously assembled in the real and virtual worlds. In this sense, avatars are chimeras simultaneously composed of a player's decisions and a game's materials. Gregory Ulmer (2012) suggested that an "avatar must sustain this parallax dimension, supporting the emergence of a third quality out of a logic of two" (p. xii). When players avatar, they move through virtual worlds as both themselves and the game, and in so doing they create new and variable forms of virtual spaces through play.

Avatars embody the multiple and varied pathways for play made possible by new media. James Paul Gee (2007), of course, argued that the multiple pathways in videogames are crucial for helping players learn to finish complex tasks. Here, I am referring to the notion that games such as Skyrim enable players to build customized avatars that create variant versions of the game through play. This happens in at least three ways. First, and most obvious, is the fact that avatar creation changes not only how the game looks but also how the game itself unfolds and responds. In other words, the customization of avatars varies the experience of gameplay whenever different users access the virtual environments. Second, the particular gaming platform and projection devices-televisions with different resolutions, computer monitors of various sizes-affect the experience different gamers have with the sounds, textures, colors, and graphics of games. Through the devices players use to play in virtual environments, they assemble versions of the game space that vary sensually. Third, contemporary console games like Skyrim are treated the same way as computer software in that they are subject to periodic updates. In other words, when gamers connect their systems to the web, the game design company may have released updates the player can install that change in-game mechanics, fix bugs, or add new features. Moreover, gamers can both design and purchase modifications to change in-game graphics and sounds. The game, as it exists on their particular device and as it is modified for them in the moment of access, is potentially much different from the version other players play.

In these three ways-customizing avatars, using different gaming platforms and devices, and periodic updates-gamers create and express their preferred image of what constitutes "the game" as they play. To perform an analysis of a game like Skyrim is to perform an analysis of the game as it was when I played, which includes how I have built my character, what platform I am using, and what version or modification of the game I have installed. A language of play is expressed through the variability of new media objects such as games because what constitutes the game space at any given time is always ambiguous and under transformation, symbolized by the various makings of avatars and the virtual worlds they inhabit.

As I have said, while a language of play is emphasized and enabled by computable media, play can be symbolized in the possibility spaces of old media. Print has opened countless and vast possibility spaces for composing in a variety of situations, most of which—if not all—involve multiple semiotic modes. According to Jay David Bolter (2001), "A writing space is generated by the interaction of material properties and cultural choices and practices. Moreover, each space depends for its meaning on previous spaces or on contemporary spaces against which it competes" (p. 12). Printed books, for instance, are incredibly robust as media, as they are both portable and easily sharable. If I purchase a book at a used bookstore, for instance, underlines of particular passages marked in black ink are the play of that media,

[^7]the "free movement" within the book's more rigid structure that makes possible different versions of the text (Salen \& Zimmerman, 2004, p. 304). Although Manovich's theory of new media is sometimes criticized for over-emphasizing the new, I would argue that it usefully distinguishes between old and new media without denigrating or overvaluing either. Paired with the concept of possibility spaces, we can discuss the different ways play is symbolized within the spaces made open by different media. While the computerization of new media means that variation can emerge every time the media is accessed, the writing spaces of both old and new media abound with possibility. To suggest that human play is symbolized in all forms of textual production is to conceptualize the spaces in which we compose as teeming with the movements of human experience, experimentation, and possibility.

## 4. Conclusion: Aptness and making play visible

In this essay, I have made two large, over-arching claims to describe a language of play. First, I have claimed that play is symbolized non-discursively within magic circles, rule-bound cultural sites where a players can act strategically and unleash their creativity. Second, I have claimed that play, though not a specific property of computerization, is emphasized and enabled by specific characteristics of new media that allow for play to be symbolized in the form of new media objects such as digitally edited images, memes, feedback systems, and avatars. This is largely because computable media, by storing all kinds of media in a specific device, allows for the information from one media object to move through another media object. Whether that is through the digital code of one image entering the code of another, a gamer's modification that brings new music into the game space, or the sketching of a doodle on a printed book's page, all these examples mean that the general shape and structure of one media object-its magic circle-is invaded by another's play. Langer (1942) once wrote, "Magic, then, is not a method, but a language" (p. 49). I contend that play is an appropriate term for Langer's magic.

In my mind, theorizing play's rhetorical potential is critical to the traditional and ongoing goals of computers and writing teaching and research in general. Furthermore, although Albert Rouzie (2003) called on the field to recognize play as a significant rhetorical element in the composing process, I believe there is still more the field may do to realize the possibility spaces of play. For example, in a recent article about the trends and key terms in computers and writing research, Gail Hawisher and Cynthia Selfe (2012) specifically noted the field's concern with multiple forms of literacy and multiple kinds of symbol-making practices. Included among the modes Selfe and Hawisher noted in their review of key scholarship were design, image, and aurality, among others. To speculate on how the field might think of play similarly as a mode of expression, I want to conclude with a rhetorical definition of play specific to the context of computers and writing and to suggest two possible moves instructors might make to emphasize importance of play in composition through pedagogy.

I propose that computers and writing as a field think of play as the movements of individuals within, through, and against the rule structures of composing mediums and to realize that the play of both creates a variety of rhetorical forms of expression like memes and avatars. In doing so, teachers and scholars can describe to one another and to students how play-and where they play-is vital at every stage of textual production, distribution, and access. Such a definition suggests two broad pedagogical moves that might highlight and emphasize compositional play.

First, instructors can deliberately seek out and experiment with composing mediums that are especially apt for the expression of play. Familiar to most in computers and writing, of course, is the work of Gunther Kress (2010), who described a mode as a "socially shaped and culturally given semiotic resource for making meaning" and media as its material articulation (p. 79). Furthermore, Kress (2010) argued that some media are especially apt for the articulation of specific modes (p. 83). In this essay, I have taken play as a resource used by humans to make meaning through a variety of textual forms, which suggests that some media might be especially apt for its expression. Videogames immediately come to mind as perhaps the most apt media for play and a variety of symbolic forms shaped by play, such as virtual environments and avatars. Aside from playing or analyzing games, students can use screen capture software to record and then include moments of gameplay in digital compositions like videos, blogs, or even online strategy guides. Using media such as videogames and screen capture that are especially apt for play, even for small scaffolding assignments or invention activities, might help instructors illustrate play's rhetoricity in ways that students will easily recognize before discussing play in textual products where its presence might be subtler.

Second, instructors can spend time considering the potential for particular materials to be shaped by play and then work with their students to make such play visible. This move can work equally as well with either old or new media, as it simply asks that composers give specific attention to how their writing materials simultaneously restrict movement
while offering some freedom for exploration and discovery. In terms of old media, this can mean making efforts to call attention to the restrictions and possibilities of particular materials that are sometimes rendered invisible through convention and commonplace. Acts as simple as folding or tearing a piece of paper in order to rearrange parts of an essay draft during revision can call attention to the play enabled by paper that creates possibilities unique from the materiality of a screen. Conversely, in terms of old media, instructors might ask students to pay more conscious attention to features of new media that are typically ignored. Here, I am specifically referring to the periodic software updates that were discussed in the earlier section about variation. Students are rarely asked to reflect on the rhetorical effects of the specific software they use to compose, much less to consider the particular version or patch of that software. To help make visible the rhetoricity of play, instructors can create assignments that have students describe the particular version of software they used and any updates or plug-ins they have installed. The different ways that a particular version of image-editing software restricts and enables students to shape their composition is a possibility space for play that enables unique rhetorical choices and strategies.

In this essay, I have attempted to contribute a descriptive terminology for teachers and researchers to communicate with one another and students about the rhetorical potential of play, especially as it pertains to computable media. Although instructors can always seek new and innovate ways to invite play into their classrooms, it is my hope that my remarks in this essay illustrate play's vitality at all stages of composing and highlight ways composers might tap its rhetorical potential through an awareness of those spaces where it is made possible.

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## References

Allaway, Jennifer. (2014). "\#GamerGate trolls aren't ethics crusaders; they're a hate group". Jezebel,. Retrieved from http://jezebel.com/gamergate-trolls-arent-ethics-crusaders-theyre-a-hate-1644984010
Ball, Cheryl E. (2004). Show, not tell: The value of new media scholarship. Computers and Composition, 21(4), 403-425.
Bawarshi, Anis S. (2003). Genre and the invention of the writer. Reconsidering the place of invention in composition. Logan: Utah State University Press.
Bogost, Ian. (2013). Exploitationware. In Richard Colby, Matthew S. S. Johnson, \& Rebekah Shultz Colby (Eds.), Rhetoric/Composition/Play: Reshaping theory and practice through video games (pp. 139-147). New York: Palgrave MacMillan.
Bogost, Ian. (2010). Persuasive games: The expressive power of videogames. Cambridge: The MIT Press.
Bogost, Ian. (2008). The rhetoric of videogames. In Salen Katie (Ed.), The ecology of games: Connecting youth, games, and learning (p (pp. 117-140). Cambridge: The MIT Press.
Bolter, Jay David. (2001). Writing space: Computers, hypertext, and the remediation of print. New Jersey: Lawrence Erlbaum.
Brooke, Collin Gifford. (2000). Forgetting to be (post)human: Media and memory in the kairotic age. JAC, 20(4), 775-795.
Burke, Brian. (2014). Gamify: How gamification motivates people to do extraordinary things. Brookline: Bibliomotion, Inc.
Colby, Richard. (2014). Writing and assessing procedural rhetoric in student-produced video games. Computers and Composition, 30(4), 43-52.
Cope, Bill, \& Kalantzis, Mary (Eds.). (1999). Multiliteracies: Literacy learning and the design of social futures. New York: Routledge.
Crick, Timothy. (2011). Toward a phenomenology of contemporary video gaming. Games and Culture, 6(3), 259-269.
Daniel-Wariya, Joshua L. (2014). Ludic rhetorics and the language of play. pp. 3636740. (Doctoral dissertation). Retrieved from ProQuest.
deWinter, Jennifer, \& Vie, Stephanie. (2008). Press enter to say: Using Second Life to teach critical media literacy. Computers and Composition, 25(3), 313-322.
Ferrara, John. (2012). Playful design: Creating game experiences in everyday interfaces. New York: Rosenfeld Media.
Gaut, Berys. (2010). A philosophy of cinematic art. New York: Cambridge University Press.
Gee, James Paul. (2007). Good video games + good learning: Collected essays on video games, learning, and literacy. New York: Peter Lang.
Gee, James Paul. (2003). What video games have to teach us about learning and literacy. New York: Palgrave Macmillan.

Gee, James Paul, \& Hayes, Elisabeth R. (2010). Women and gaming: The Sims and $21^{\text {st }}$ century learning. New York: Palgrave MacMillan.
Hawisher, Gail E., \& Selfe, Cynthia L. (2012). Studying literacy in digital contexts: computers and composition studies. In Ritter Kelly, \& Matsuda Paul Kei (Eds.), Exploring composition studies: Sites, issues, and perspectives ( $p$ (pp. 188-199). Logan: Utah State University Press.
Hodgson, Justin. (2013). Developing and extending gaming pedagogy: Designing a course as a game. In Richard Colby, Matthew S. S. Johnson, \& Rebekah Shultz Colby (Eds.), Rhetoric/Composition/Play: Reshaping theory and practice through video games (p (pp. 45-60). New York: Palgrave MacMillan.
Huizinga, Johan. (1938). Homo ludens: A study of the play-element in culture. Boston: The Beacon Press.
Johnson, Matthew S. S., \& Colby, Richard. (2013). Ludic snags. In Richard Colby, Matthew S. S. Johnson, \& Rebekah Shultz Colby (Eds.), Rhetoric/Composition/Play: Reshaping theory and practice through video games ( $p$ (pp. 82-97). New York: Palgrave MacMillan.
Juul, Jesper. (2013). The art of failure: An essay on the pain of playing video games. Cambridge: The MIT Press.
Juul, Jesper. (2012). A casual revolution: Reinventing video games and their players. Cambridge: The MIT Press.
Juul, Jesper. (2005). Half-Real: Video games between real rules and fictional worlds. Cambridge: The MIT Press.
Kress, Gunther. (2010). Multimodality: A social semiotic approach to contemporary communication. New York: Routledge.
Langer, Susanne K. (1942). Philosophy in a new key: A study in the symbolism of reason, rite, and art. New York: New York American Library.
Manovich, Lev. (2013). Software takes command. New York: Bloomsbury.
Manovich, Lev. (2000). The language of new media. Cambridge: The MIT Press.
McGonigal, Jane. (2011). Reality is broken: Why games make us better and how they can change the world. New York: Penguin Books.
Murray, Joddy. (2009). Non-Discursive rhetoric: Image and affect in Multimodal Composition. New York: SUNY Press.
Rice, Jeff. (2013). Occupying the digital humanities. College English, 75(4), 360-378.
Rickert, Thomas. (2013). Ambient rhetoric: The attunements of rhetorical being. Pittsburgh: University of Pittsburgh Press.
Rouzie, Albert. (2005). At play in the fields of writing: A serio-ludic rhetoric. New Jersey: Hampton Press.
Salen, Katie, \& Zimmerman, Eric. (2004). Rules of play: Game design fundamentals. Cambridge: The MIT Press.
Saussure, Ferdinand de. (1972). Course in general linguistics. Chicago: Open Court.
Shultz Colby, Rebekah, \& Colby, Richard. (2008). A pedagogy of play: Integrating computer games into the writing classroom. Computers and Composition, 25(3), 300-312.
Shipka, Jody. (2011). Toward a composition made whole. Pittsburgh: University of Pittsburgh Press.
Sirc, Geoffrey. (2002). English composition as happening. Logan: Utah State University Press.
Sutton-Smith, Brian. (1997). The ambiguity of play. Cambridge: Harvard University Press.
Taylor, T. L. (2006). Play between worlds: Exploring online gaming culture. Cambridge: The MIT Press.
Ulmer, Gregory. (2012). Avatar emergency. South Carolina: Parlor Press.
Wysocki, Anne Frances, Johnson-Eilola, Johndan, Selfe, Cynthia L., \& Sirc, Geoffrey. (2004). Writing new media: Theory and applications for expanding the teaching of composition. Logan: Utah State University Press.


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[^1]:    ${ }^{1}$ John Ferrara (2012), for example, argued that game designers can articulate a core message by valorizing particular outcomes in a game or by rewarding certain choices made by players (p. 203).

[^2]:    ${ }^{2}$ For good examples of the wide array of videogame-based pedagogies in the field today, see the recent special issue of the online journal Syllabus, titled "Teaching with and about Games."

[^3]:    ${ }^{3}$ The term magic circle is a point of significant scholarly debate, and is most often attributed to Dutch linguist and historian Johan Huizinga (1938) (though the term has a longer history of use in anthropology). While some have criticized Huizinga for using the term to maintain an impenetrable boundary between virtual and real worlds (Ferrara, 2012; Shultz Colby and Colby, 2008; Taylor, 2006), others tended to view the concept as more fluid and permeable (Bogost, 2010; Crick, 2011; Juul, 2013). While I have argued elsewhere that the term is best understood to refer to game worlds as simultaneously real and virtual (2014), the point is too tangential to merit discussion in the present essay. Suffice to say that my use of the term is not intended to imply a dichotomous real vs. game world model, and I do not assume the term is uncontested.

[^4]:    ${ }^{4}$ Saussure (1972) wrote, "The word symbol is sometimes used to designate the linguistic sign, or more exactly that part of the linguistic sign which we are calling signal. This use of the word symbol is awkward, for reasons connected with our first principle. For it is characteristic of symbols that they are never entirely arbitrary" (p. 68).
    ${ }^{5}$ I have previously (Daniel-Wariya, 2014) claimed that Huizinga maintains two very different types of play in Homo Ludens: there is play, which is a natural, objective, naturally-occurring thing, and the play-concept, the way human beings express and experience play in forms such as dance, carnival masks, and the joust.

[^5]:    ${ }^{6}$ Just as I emphasize the potential for play in computational media, here I also emphasize its non-discursive possibilities. However, such a move should not be over-extended to suggest that play is not also discursive or that an easy distinction exists between any given symbol's discursive and non-discursive qualities. As Joddy Murray (2009) articulated, discursive and non-discursive forms overlap and infuse one another, and this provides composers with what he has referred to as "a playground stocked with equipment" (p. 188). In favoring the term non-discursive to describe play in these pages, my purpose is to emphasize the possibilities of play in modalities such as image and movement, rather than to divorce play from alphabetic writing.

[^6]:    ${ }^{7}$ It is also worth noting, as Manovich (2011) suggested, that the key role of software in computable media is only beginning to be understood. Manovich (2011) argued that software, by both simulating old media through code and hybridizing various kinds of simulated media, is leading us to understand that "the computer can speak more and more languages" (p. 95). By simulating games, one of those languages is play.
    ${ }^{8}$ Moreover, the aggregation of data enabled by licensing agreements is another way games-based pedagogies involve risk, because instructors may unwittingly require their students to consent to having their personal data collected and used by corporations.

[^7]:    ${ }^{9}$ Phasing a term from the gaming industry that refers to the different versions of an online environment that exist over time as different updates and modifications are made available to users. See McGonigal (2011).

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