

Art as an Innovation for Games: A Closer Look at Role of Art in Games

Theresa Claire Devine

New College of Interdisciplinary Arts and Sciences
School of Humanities, Arts, and Cultural Studies
Arizona State University
Phoenix, AZ 85069-7100, USA

Abstract

This article presents a methodology to decipher and explore this question: is Art a new predicate, a new way to introduce creative innovation, for games? Examining Art as a new way to innovate for Games introduces the idea that there are low and high games, signified thusly: games and Games. The process exposes, through an examination of Games that are Art, there are currently six (6) Art predicates for Games. This study also reveals that these newly found predicates are, indeed, defining traits of Games that are works of Art. In discovering these traits this article identifies the boundaries of an already existing "Gameworld" as Arthur Danto might have seen it, if he had been inclined to conduct such a study.

Key Words: Artworld, Gameworld, games as Art, aesthetics, Arthur Danto, creative innovation, predicates

1. Introduction

Arthur Danto states that: "An artistic breakthrough consists, I suppose, in adding the possibility of a column to the matrix. ... Whatever the artistically relevant predicate [is]..., the rest of the Artworld becomes that much richer in having the opposite predicate available and applicable to its members" (Danto, 1964, p. 584). I explain the concept of a "predicate" in earlier research as follows:

The third point that Danto makes in his essay is that innovation in Art is defining a new predicate; that is a new something to do, or a new way to be. He reaches this thought by first establishing an understanding of "opposites." He begins, "I shall now think of pairs of predicates related to each other related to each other as 'opposites,' [...] Contradictory predicates are not opposites, since one of each of them must apply to every object in the universe, and neither of a pair of opposites need apply to some objects in the universe" (p. 582). [...] using contradictory predicates allows the communicator to speak to missing pieces and to represent *what is not there*, [...] in the context of *what is there*... This is a very important first step in grasping innovation in the Artworld because introducing *what is not there*, or innovation, can only be understood in context of *what is there*. (Devine, 2015b, p. 53)

I also proved in this research that since the predicate of *intermingled reality* successfully builds upon the Pop Art advance of separate realities, this advancement constitutes innovation that games bring to and enrich the Artworld (Devine, 2015b, p. 58). This extends Danto's matrix as shown in this figure from that article (Figure 1). In the same way, a corresponding matrix can be authored to include Art to similarly define a Gameworld (Figure 2). In this article, the goal is to discover the influence Art might have, as I consider the reverse question: how is Art a new predicate for games and/or Games?

1.1 Authoring a Methodology

To begin to consider that Art is a predicate for games, I analyze this thought: "in [A]rt we might have to configure in order to be able to interpret whereas in games we have to interpret in order to be able to configure [...]" (Eskelinen, 2001, para. 2.3) in more depth than I did previously (Devine, 2015b, p. 51). If "in games we have to interpret in order to be able to configure," then, when I examine games *that are Art*, I have to: (A) interpret; (B) configure; and then (C) interpret again.

To further clarify this process, I add Bateman's research which helps me understand *what is there* in games. In the previous research I stated that discovering the innovation, the introduction of *what is not there*, can only be understood in context of *what is there* (Devine, 2015b,p.53). The resulting algorithm follows:

1.2 Methodology to Analyze Art in Games

(A) Interpret

1. Identify which of the following aesthetics occur in the game: agency, victory, conflict, decision, problem, social, imaginative, uncertainty, systems, learning, mastery, curiosity, reward, voluntary and playfulness (Bateman, 2014, aesthetics listed).
2. Based on the identified aesthetics in #1, decide the landscape of play (Bateman, 2014, pp. 16-18).
 - Pursuit of triumph = victory, conflict, voluntary.
 - Triumph over adversity = victory, conflict, problem, decision, learning, reward.
 - Pursuit of goal-oriented, outcome-focus = problem, system, learning, mastery, reward.
 - Journey process-oriented focus on story and inventiveness = imaginative, system, agency, curiosity, voluntary.
 - Pursuit of social = reward, voluntary, learning, mastery.
 - Pursuit of the unknown = uncertainty, voluntary, curiosity, playfulness.
3. Determine if object [O] is of kind Game.

(B) Configure

1. Ask: What is the "underlying conceptual unity to the concept of [the] game" (Bateman, 2014, p. 19) according to the "artist identification" (Danto, 1964) of the piece?

(C) Interpret (1-4 previously appeared Devine, 2015b, p. 55).)

1. Determine if object [O] is of kind Art.

The conditions for a work of Art are: (1) it "embodies meaning" (Danto, 2013, p. 50); (2) the physicality of the piece and the meaning are "indissolubly comingled" (p. 92); the piece "creates its own truth" (p. 112); and the work has "spirit" and harnesses the "creative power of the artist" (p. 117).

2. Look for the contradictory predicate pair [CPP].
3. If the piece has at least one CPP, then...
4. Decide what the predicate [P] is.
5. Is [P] essential to the identity of a Game as Art?
6. If yes, then [P] is a defining trait of Game Art.

1.3 Organization of the Article

First, I explore the history of defining games in order to draw a map of historical and current thoughts on the subject and to give a starting point to the discussion.

Second, I explain the difference between "a game" and "a Game." When discussing games as Art, I posit that there are *games*, and then there are *Games*, just as in art worlds (Becker, 1982, 2008) and the Artworld (Danto, 1964), there is *art* and *Art*. It is important to fully explore this difference, because this delineation has not yet been made distinct. I will show how this yields a new way to approach identifying and setting the boundaries between "games" and "Games" and to establish solid ground on which to base this distinction.

Third, I apply the methodology and algorithm discussed in the introduction of this paper to discover *how* Art might be a new predicate for Games. I present the written artifacts and artworks of selected game makers in this section of this paper. It is important to note that some of these artifacts are found in non-scholarly sources and, when necessary, I have used these sources to elucidate the maker's intention.

Finally, I finish the article with the idea that Art is a predicate for "Games," and that this conclusion brings innovation to both the Gameworld and the Artworld.

2. A Short History of Defining Games

There are two ways games have been defined in the past. The first method has been an overall description of the *experience* of playing a game. I found eleven (11) instances that all took this approach, with varied nuances: (1) Johann Huizinga; (2) Clark C. Abt; (3) Elliot Avedon and Brian Sutton-Smith; (4) Bernard Suits; (5) David Parlett; (6) Greg Costikyan; (7) Jesper Juul; (8) Craig Lindley; (9) Ralph Kostner; (10) Espen J. Aarseth; and (11) Naomi Segal and Daniela Koleva. It begins with Huizinga's definition of play in 1938: "a free activity standing quite consciously outside of 'ordinary' life as being 'not serious' but at the same time absorbing the player intensely and utterly. ... It proceeds within its own proper boundaries of time and space according to fixed rules and in an orderly manner" (cited in Salen & Zimmerman, 2004, p. 75). Abt's definition appears in 1970: "Reduced to its formal essence, a game is an *activity* among two or more independent *decision-makers* seeking to achieve their objective in some *limiting context*" (cited in Salen & Zimmerman, p. 74). Avedon and Sutton-Smith's definition reiterates the same concept but adds the nuance of the notion of a game being "voluntary" and "a system." Written in 1971 their definition reads: "Games are an exercise of voluntary control systems, in which there is a contest between powers, confined by rules in order to produce a disequilibrium outcome" (cited in Salen & Zimmerman, p. 78). Suits adds his thoughts to defining games with his use of the words, "voluntary" and "unnecessary" to his definition in 1990: "... playing a game is the voluntary effort to overcome unnecessary obstacles" (cited in Salen & Zimmerman, p. 76). In 1994 Costikyan appended the idea that games are an Art form when he wrote that games are: "... a form of art in which participants, termed players, make decisions in order to manage resources through game tokens in the pursuit of a goal" (cited in Salen & Zimmerman, p. 78). David Parlett emphasized *winning* in his 1999 definition: "A formal game has a two-fold structure based on ends and means: *Ends*. Is a contest to achieve an objective ... To achieve that object is to win. Hence a formal game ... has a winner; and winning is the 'end' of the game in both senses of the word, as termination and as object. *Means*. It has an agreed set of equipment and of procedural 'rules' by which the equipment is manipulated to produce a winning situation" (cited in Salen & Zimmerman, p. 74). Jesper Juul added the nuance of a game being "unambiguous" in 2005: "Since playing a game where the participants disagree about the outcome is rather problematic, the specification of the outcome develops like the rules of a game, towards becoming unambiguous" (Juul, 2005, p. 39). In the same year, Lindley offered a definition which does not add anything to the previous definitions but distills them in simplified form: "[...] a goal-directed and competitive activity conducted within a framework of agreed rules" (Lindley, 2005, para. 1). Ralph Kostner adds his nuance by introducing that a game "may or may not be algorithmic" in his definition in 2012: "Playing a game is the act of solving statistically varied challenge situations presented by an opponent who may or may not be algorithmic within a framework that is a defined systemic model" (Kostner, 2012, para. 3). In the same year, Aarseth articulates his definition: "Games are facilitators that structure behavior, mainly for the purpose of entertainment. Note that I don't use the word 'rules', but the broader term 'structure'" (Aarseth, 2012, para. 3). This type of definition continues to persist as evidenced by Segal and Koleva's description which emphasizes Aarseth's point of view in 2014: "[...] games are facilitators that structure player behavior, and whose main purpose is enjoyment" (Segal & Koleva, 2014, p. 181).

The second strategy to define games that has been applied is a Ludwig Wittgenstein-inspired "family resemblances" (Kaufman, 2007, p. 282) approach. This aligns the task of defining games with those who define Art similarly (e.g. Mandelbaum, 1965; Cohen, 1965). The use of this device implies that a game is an open concept and, as such, indefinable. I found five (5) instances of this type of approach: (1) Roger Caillois; (2) Chris Crawford; (3) Katie Salen and Eric Zimmerman; (4) Grant Tavinor and (5) Chris Bateman. Caillois' theory from 1958 (Caillois, 1958, 1961, 2001) "is in many ways a direct response" (Salen & Zimmerman, 2004, p. 76) to Huizinga; he lists the traits of play to be: free, separate, uncertain, unproductive, governed by rules and make-believe (cited in Salen & Zimmerman, 2004, p. 76 paraphrase). Crawford offers his list in 1984 of game features to be: representation, interaction, conflict and safety (Crawford, 1984, pp. 4-12 paraphrase). Salen and Zimmerman present their inventory of game attributes in 2004: system, players, artificial, conflict, rules and quantifiable outcome (Salen & Zimmerman, 2004, p. 80 paraphrase). In an article to define *video* games from 2008 Tavinor gives this list: "in a digital visual medium, [a game] is intended primarily as an object of entertainment, and is intended to provide such entertainment through the employment of one or both of the following modes of engagement: rule-bound gameplay or interactive fiction" (Tavinor, 2008, para. 5.1). This philosopher also continues his thought process and offers a three-part feature list in an effort to raise the question whether video games are Art *or* "a new and distinctive form of art" (Tavinor, 2009, p. 196).

The three parts and their respective lists are: (A) *cluster theory of Art*: supply direct pleasure, virtuosity, representation, super-realism, immersion, individual expression, emotional evocation, intellectual challenge; (B) *institutional theory of Art*: criticism and institutional acceptance; and (C) *game theory*: rules, objectives and competition (Tavinor, 2009, pp. 181-196 paraphrase). In a recent article Bateman gives his list of game aesthetics as follows: agency, victory, conflict, decision, problem, social, imaginative, uncertainty, systems, learning, mastery, curiosity, reward, voluntary and playfulness (Bateman, 2014, aesthetics listed).

Next I examined how these definitions have been used in other research. In an article that explores alternative goals in games, Costikyan's definition is quoted to give a solid foundation to base that a goal of a game can be to lose (Lee, 2003, para. 3.1). Huizinga, Caillois, Suits and Aarseth are all invoked in a dialogue about play, games and serious games (Rockwell & Kee, 2011). Juul influenced Wilson, who presents "alternative possibilities for the design of digitally-mediated play and games. Specifically, [he argues] that that intentionally 'broken' or otherwise incomplete game systems can help nurture a distinctly self-motivated and collaborative form of play" (Wilson, 2011, para. 1). This creative research, *Brutally Unfair Tactics Totally OK Now (B.U.T.T.O.N.)*, "was informed by our concerns that precise definitions like Juul's embody a kind of inherent conservatism, reifying certain conventions at the expense of alternative possibilities" (Wilson, 2011, Endnote 7). Hutchison invokes Juul, and Salen and Zimmerman in his article about the effect of technical limits on games (Hutchison, 2008, para. 2). Hall and Baird "designed a process to analyse [sic] and explore computer game narrative" that uses "a 10-point definition of game components" offered by Avedon and Sutton-Smith in their research (Hall & Baird, 2008, para. 1). Juul's definition is also called upon in an article exploring interactivity in games (Natkin, 2014, p. 166). These instances, which represent only a fraction of the use of these definitions, make it clear that the influence of these descriptions has been broad on all types of game studies research, and that the effects continue to reach far into the field.

3. Why Analyze the Difference between "game" and "Game"

When discussing games as Art it is possible that there are *games*, and then there are *Games*, just as in art worlds and the Artworld there is *art* and *Art*. The use of the capitalization of the word "art" has been to distinguish between aesthetic and artistic value or, to clarify, low and high art. Typically, the term *low art* has been used to describe work that does not display all of the necessary conditions to be *High Art* but still retains aesthetic value (e.g. Cohen, 1999; Panofsky, 1997; Fenner, 2005). It is important to fully explore this difference because this delineation has not yet been made discrete in games. As the previous discussion of the history of defining games has shown, currently all games are considered equal and no one has taken the time to sort out how to make this distinction. Aaron Smuts has a similar thought when he states "that while many video games probably should not be considered art, there are good reasons to think that some video games should be classified as art" (Smuts, 2005, para. 1). While this aesthetic philosopher "offer[s] reasons for thinking that video games can be art according to historical, aesthetic, institutional, representational and expressive theories of art" (Smuts, 2005, para. 3), he does not delineate between low and high Art, or aesthetic and artistic value. His and other researchers' use of the lower case "a" signifies that they do not differentiate between "art" and "Art." Smuts and the Wittgenstein-influenced game researchers' line of thinking supports the notion that an aesthetic perception can be taken on *any object* perceived by the senses. If I accept this end, then I can surmise that not only is the line between "art" and "Art" blurred in game studies, and is it also possible that, "aesthetic value as a category is much wider than artistic value, since only a small percentage of artifactual objects are works of art" (Fenner, 2005, para. 2).

4. Applying the Methodology: Discovering the Difference between "game" and "Game"

Beginning with Bateman's aforementioned list of aesthetics I begin to sort the distinction between "game" and "Game." I have chosen to use Bateman's version because he, like me, is looking to discover more information on the relationship between Art and games and perhaps even bridge them. Furthermore, his argument is informed by previous research that I have mentioned in this article and this gives common ground on which to build anew. Since the list of aesthetics is long, I find it useful to follow the notion that "critical engagement with specific videogames is more important to the general acceptance of the medium as art than meta discussions about the potential of the media to be art" (Burden & Douglas, 2012, para. 6). I call upon *The Marriage* (Humble, 2006) to aid in the discovery of how to delineate between "game" and "Game." I have chosen this object because it is widely considered an "art game" (Humble, 2007, para. 1) and has the written artifacts to identify it as such (e.g. Humble, 2007; Humble, n.d.). For this reason, it has the likelihood of withstanding my analysis in the course of this study.

The Marriage (Humble, 2006) is a 2D top-down scrolling digital piece. When the software is launched, there are two squares on the screen. One is blue and the other is pink. They move toward each other and touch which is a visible indicator of a "kiss." The pink square will grow and the blue will shrink and become a bit transparent after this event. After the initial "kiss" the scroll from top to bottom begins. Circles enter the field. There are light green, gray and black circles. Any color but black will help both avatars grow. The player can mouse over the squares to bring them closer to each other for a kiss or mouse over a circle to make it disappear. When a circle disappears, the pink square gets smaller. The goal of the game is to keep both avatars alive by balancing contact with the circles and the number of "kisses." Humble states, "The game is my expression of how a marriage feels. The blue and pink squares represent the masculine and feminine of a marriage. They have differing rules which must be balanced to keep the marriage going. [...] You are playing the agency of Love trying to make the system of the marriage work" (Humble, n.d., para. The Games meaning). *The Marriage* (Humble, 2006), in other words, engenders very delicate and fragile equilibrium between work and intimacy, just like maintaining a balanced household.

I start analyzing this piece by applying step A1 of the algorithm, to identify game aesthetics. The analysis reveals this interpretation. This object is *voluntary* and *playfully* presents the *problem* of balance in a relationship. It gives the player *agency* to make *decisions* to affect this *uncertain* challenge. The *reward* in this experience is the continuation of it the play experience and, metaphorically, the marriage. Play will end if the elements are not kept in balance. Step A2 is to decide the landscape of play. These aesthetics point to three landscapes of play: (1) pursuit of the unknown; (2) pursuit of a goal-oriented outcome; and (3) triumph over adversity. This completes the interpretation steps A1 and A2. Therefore, because this piece has game aesthetics and it also has a definable landscape of play, I can conclude that *The Marriage* (Humble, 2006) is a game.

This begs the question; is it a "Game?" *The Marriage* (Humble, 2006) realizes the conditions set forth by the first two steps, but a game like *Bubble Witch Saga 2* (King.com Ltd, 2014) also fulfills this criteria, I would posit that researchers in game studies and philosophy alike would be hard pressed to identify this popular casual game as Art. What would be the criteria for the big "G" Games designation? Remember, *what is not there* can only be understood in context of *what is there* and, I can reason, vice versa. In comparing and contrasting these two examples, *The Marriage* (Humble, 2006) and *Bubble Witch Saga 2* (King.com Ltd, 2014), I extrapolated the following five (5) necessary conditions for a "game" to be a "Game." In this process I was influenced by the thoughts of Noël Carroll (Carroll, 2011), revisited Ludwig Wittgenstein's *Philosophical Investigations* (Wittgenstein, 1953, 1958, 1963), and followed Arthur Danto's example of "necessary conditions" (Danto, 2013) for Art, without replicating his specific conditions, to author an inventory of the same type for Games. This list is in no particular order and these aspects are to be considered equal to another.

Five (5) Necessary Conditions for "Games" and "games"

- (1) "Games" can play like anything, including not being played; whereas "games" have an expected gameplay scenario.
- (2) "Games" evolve as they are played, and as such, they are open to innovation discovered between the maker and the player; whereas "games" have rules that lead the player.
- (3) "Games" are self aware of and can be ascertained by comprehension of their history; "games" can be, and usually are, unaware of their history.
- (4) The parts of a "Game" work together in order to realize an overarching purpose beyond entertainment; in contrast, a "game" does not have to have a purpose other than entertainment. Whether the parts work together is irrelevant, so long as any difficulties do not diminish the entertainment value.
- (5) A "Game" asserts and questions; whereas a "game" asserts and commands.

As written, these conditions also embody the contradictory predicate pairs appropriate to the kind [K]: Game. They are contradictory predicate pairs and not opposites because "one of each of them must apply to every object in the universe, and neither of a pair of opposites need apply to some objects in the universe" (Danto, 1964, p. 582).

The next step (3A) is to determine if object [O]: *The Marriage* (Humble, 2006), is of kind [K]: *Game* using a portion of a flowchart (Figure 3) from previous research (Devine, 2015b, p.62).

This part of my investigation begins at the step, "Compare K & O lists," because the first part of the chart has been satisfied by identifying a namable kind, "Game" and a namable object, *The Marriage* (Humble, 2006). I have also identified contradictory predicate pairs in the aforementioned "Five (5) Necessary Conditions" and can apply them here. The first contradictory predicate pair [CPP] leads me to ask: does *The Marriage* (Humble, 2006) use gameplay appropriate to its intention, or is it following an expected gameplay scenario? While much of the moving and collision gameplay is expected, the ending supports the point being made: that a marriage is a careful balancing act between two people. If not, it fails. This shows that the design of the game was not hindered by an expectation from the audience and that the game plays as the content dictates. The second question is: does the game evolve or, put another way, produce discovery in the space between the maker and the player in the course of the gameplay? The answer is affirmative, because the discovery made during gameplay is that sensitivity to all forces, inner and outer, is crucial to the success scenario: the continuance of play. The third question is: is the game self-aware of the history of games? Yes! It is aware of the history of the game mechanics of moving and collision and then choreographs them into a poetic ballet. The fourth question is: do the game parts work together in order to realize an overarching purpose beyond entertainment? This is evidenced at the moment that the player becomes aware of the maker's intention to communicate that a marriage is a delicate balance between two people. The game also makes the point that a marriage will end if sensitivity is not fostered in the relationship to keep all forces, inner and outer, in balance. The last question in this investigation is: does the game assert and question? The game asserts that a marriage is a delicate balance and poses the question: do you have the sensitivity to make it work? This reveals that *The Marriage* (Humble, 2006) does display all of the necessary conditions to be identified as a big "G" Game and henceforth should be referred to in this manner.

I now begin to configure (B1) by asking: what is the "underlying conceptual unity to the concept of [the] [G]ame" according to the "artist identification" of the piece? Since I have already answered these questions in the previous paragraphs, it seems a bit redundant to ask them again, except that doing so gives me a chance to pause, regroup and configure the work to prepare my thoughts for the next part of the algorithm. I would also like to note that if the maker did not refer to the piece as a work of Art, this is where this investigation would stop. It would be inappropriate to subject those "games" and "Games" that do not identify themselves as Art to this process. Only certain big "G" Games aspire to inclusion in a museum's Art collection. Because Humble has identified *The Marriage* (Humble, 2006) as Art, I can begin the investigation of it as such. To continue this analysis I reiterate Humble's premise here. The underlying conceptual unity of this piece is the notion that a sense of balance between two people is facilitated by love.

The next step (C1) in the algorithm is to interpret the piece first by determining if object [O]: "*The Marriage* (Humble, 2006) is of kind [K]: Art. I do this by checking if it meets the necessary conditions to be a work of Art. The first conditional question is: does this work embody meaning? Yes, it carries the challenge, struggle and joy, and hence the meaning, of a marriage. The physicality of the piece and the meaning are "indissolubly comingled" in that this message could not be conveyed without playing and experiencing the effects of choices made during the game. It would be very difficult to communicate this abstract idea in a static form, such as painting. This piece "creates its own truth" in requiring the player to become sensitized to all of the elements in the game to reach a success scenario and this makes the point that marriages are fragile and require this understanding to work successfully. Lastly, this work has "spirit" and harnesses the "creative power" of Humble in that it plays like a piece of poetry, that can either be a love sonnet or not, depending on the player's mastery of his or her sensitivity. *The Marriage* (Humble, 2006) is a work of Art.

If this piece is a work of Art, then it must have a contradictory predicate pair [CPP] (C2). What could it be? To discover this I look at the history of Games that have already been integrated into The Artworld to determine previous predicates in Games. I have used the institution of the Museum of Modern Art [MoMA] and its collection from my earlier research (Devine, 2015a, pp. 15-19), presented in this and the next two paragraphs, to simplify this endeavor. The first game that is found in the collection is *Pan Game and Marionette I Ching* by Xul Solar (Solar, 1945) and it is classified as sculpture. Xul Solar envisioned a utopia, set out to create a universal language and a new astrology. He sought to unify South America. He saw his work as a humanist project in addition to his linguistic and scientific inventions (Kefala, 2012, p. 264). What the MoMA owns is one of his universal Games, whose rules were never written down and so are lost forever, and a marionette from the adult puppet theatre. These are two different pieces collected as one, which reveals the MoMA's intention to preserve the artifacts of his utopian creation and not the Game and the puppet per se. This sets the first and second precedents to be "an artifact" and "personal belief system" as the first and second predicates for Games.

Another set of Games that the MoMA owns is the S.M.S and FLUXUS Games. These are in the "Prints and Illustrated Books" department and classified as multiples (Maciunas, 1966; Sharits, et al., 1966; Brecht, 1965a; Brecht, 1965b; Patterson, 1963; Saito, 1977; Giorno, 1968). The S.M.S Game that they own is a part of a portfolio that was "a collaboration of some of the most important artists of the 20th century" (Davidson Galleries, 2008, para. 1), and is similar in concept to the FLUXUS. These Games are all assembled from manufactured pieces and boxes. The labels and rules feature the offset printing process. It is important to note that the FLUXUS Games are a small part of the larger picture of what this group accomplished. The artists in the FLUXUS group were interested in "a mode of performativity ... that simultaneously resists and abets the intrusion of the commodity form into everyday life" (Sell, 1998, p. 6). The Games are unplayable, and act as a metaphor because they "simultaneously resist and abet" the system. These Games are purposely self-referentially absurd. This sets the third and fourth predicates for Games to be "a self-referentially absurd system" and "critique of absurdity."

The last Game found in the MoMA's Art collection is classified as an installation piece in the "Media and Performance Art" department by Feng Mengbo, titled *Long March: Restart* (Mengbo, 2008). This Game appropriates imagery and gameplay from video games such as *Super Mario Bros* (Nintendo, 1985) and *Street Fighter* (Capcom 1987) and has a soundtrack of Chinese revolutionary songs delivered in the manner of classic 8-bit gaming music. The piece is a political and sociological comment on the history and current state of China. The player is surrounded by two eighty-foot screens, which overwhelm the player, and brings new meaning to the term "split screen." To play each new level the viewer must turn around and face the opposite screen resulting in a 180 degree back and forth motion or a 360 degree turn. (LACMA Unframed, 2014) This purposeful installation of the piece leads the player to become identified with the Red Army soldier, an individual overwhelmed and swept away by the world. This piece toys with player agency to convey this meaning. This mode of agency introduces a "critique to the canonization and politicization of history and its usage as propaganda. Coca-Cola, the first Western consumer product introduced to China in 1979 after the country reopened its doors to the outside world, is at the same time a symbol of China's own modernization and of the influx of influences from the West" (Yu, 2014, para. 3). This sets the fifth predicate for Games to be "a spectator view of the human condition."

To recap, Solar introduced the idea of a Game to be an artifact of a personal belief system. The predicate of a Game as metaphor for system was built upon by The S.M.S. and FLUXUS artists and who adopted and then subverted it to critique the absurdity of an external system. Lastly, Mengbo built upon the innovations of the FLUXUS by retaining a critique of an absurd system and inviting the player into a simulation to convey a spectator's view of the human condition within that absurd system. In light of what has come before, because he does not engage in the interest in absurdity, the innovation that Humble introduces with *The Marriage* (Humble, 2006) is "a personal view of the human condition." This is the sixth predicate for Games (Figure 4). This completes steps C2, C3, and C4 of the algorithm.

The last two steps (C5 and C6) generate a question, the answer to which suggests to me a conclusion. Is this newfound predicate of *a personal view of the human condition* essential to the identity of a Game as Art? Following the process for determining difference between "contradictory predicates" and "opposites" precisely (Devine, 2015b, p.53), I author a statement to consider: *a personal view of the human condition* is essential to the identity of a Game that is a work of Art. The state that is being negated is: *a personal view of the human condition* is **not** essential to the identity of a Game that is a work of Art. Since I have shown that *a spectator view of the human condition* comes before it, this clarifies that *before* Mengbo it was not a defining trait and now *after* Mengbo, it is. There is one fly in this ointment, so to speak. Humble's Game was created in 2006 and the date on Mengbo's piece is 2008. This is where the institutional theory of Art becomes relevant. Because *Long March: Restart* was recognized by an institution before *The Marriage* (Humble, 2006), which to date has not been integrated into any museum Art collection, the predicate: "*a spectator view of the human condition*" precedes "*a personal view of the human condition*." This reveals that either (1) the institutions are unconvinced that Games are Art, which puts the onus on the Gameworld to convince them otherwise, or (2) the institutions in the Artworld are behind in their evaluation and recognition of Games. This second option puts the responsibility on these institutions to resolve whatever might be causing their reluctance to integrate Games into their collections. Either way this incorporation is accomplished, it would comprise a significant recognition of the existence of the Gameworld and a noteworthy change to the Artworld to integrate Games that are Art.

5. Conclusion

Examining Art as a new predicate for Games introduces the idea that there are low and high games, signified thusly: games and Games. The process also reveals, through an examination of Games that are Art, there are currently six (6) Art predicates for Games, namely: (1) artifact; (2) personal belief system; (3) self-referentially absurd system; (4) critique of absurdity; (5) spectator view of the human condition; and (6) personal view of the human condition. This study also reveals that these newly found predicates are, indeed, defining traits of Games that are works of Art. This also demonstrates how Art is a predicate for Games, but not games. In discovering these traits this article identifies the boundaries of an already existing "Gameworld" as Arthur Danto might have seen it, if he had been inclined to conduct such a study.

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Danto's Matrix, Extended

	F [Realism]	G [Expressionism]	H [Conceptualism]	I [Performance]	J [Interactive]	K [Intermingled Reality]
Fauvism	+	+	-	-	-	-
Ingres	+	-	-	-	-	-
Abstract Expressionism	-	+	-	-	-	-
Hard Edge Abstraction	-	-	+	-	-	-
Dada	-	-	+	+	+	-
Pop Art	+	-	+	-	-	-
Games	-	-	+	+	+	+

Artworks and defining traits

Figure 1: Danto's matrix extended to include games. Originally printed IJAH December 2015, p.67

Danto's Matrix, Redefined for Games

	F [Artifact]	G [Analog]	H [Computer]	I [Socially Transformative]	J [Aesthetically Transformative]	K [Artistically Transformative]
Ancient Games	+	+	-	-	-	-
Sports	+	+	+	+	+	-
Board Games	-	+	-	+	+	-
Video Games	-	-	+	-	+	-
Serious Games	-	+	+	+	+	-
Pervasive Games	-	+	+	+	+	-
Art Games	-	+	+	+	+	+

Games and defining traits

Figure 2: Danto's matrix redefined for games

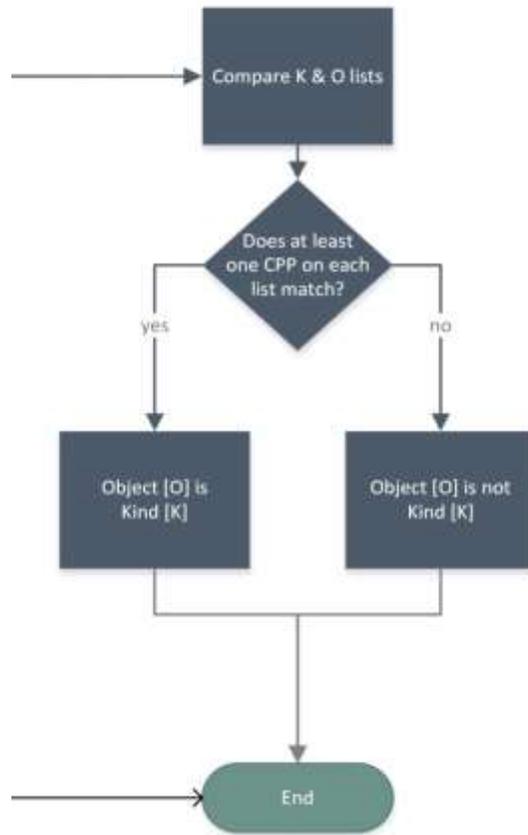


Figure 3: How to tell if Object [O] is of certain Kind [K]: detail of original flowchart
Danto's Matrix, Reconfigured for Games

	F [Artifact]	G [Personal Belief System]	H [Self Referentially Absurd System]	I [Critique of Absurdity]	J [Spectator View of Human Condition]	K [Personal View of Human Condition]
Xul Solar	+	+	-	-	-	-
S.M.S & FLUXUS	+	+	+	+	-	-
Feng Mengbo	-	-	+	+	+	-
Rod Humble	-	+	-	-	-	+

Artists and predicates

Figure 4: Danto's Matrix, Reconfigured for Games