

# A Perspective on a New Digital Art Game: The Approach of Research and Knowledge Transfer

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**Abstract:** This study proposes a new methodological approach for digital art game creation focused on research and knowledge transfer. The author is carrying out research into the aesthetics of contemporary games in order to transfer the results of the research to the game's players. The trend of kitsch/camp is presented as an example of the contemporary aesthetics of art games. The author reveals the absence of knowledge transfer and educational focus in the area of art games. There are many examples of a research-based game creation, but the capacity for knowledge transfer in the art game area is underestimated at present. This article explores the project related to the new game Art Space which is based on the respective methodological approach. The new game is a research-based educational game of contemporary audio-visual aesthetics that serves as a knowledge bearer. It will teach the player to recognize the current trends in digital art, as well as the antecedents of aesthetics in art games. Art Space will be a new creative and educational platform for the general public which hopes to increase acceptance of art games as educational games.

## 1 INTRODUCTION

The paper discusses the current situation in game discourse regarding research and knowledge transfer. Art game has not been well exploited as a method of knowledge transfer so far. It could be a suitable media for informing the players about the latest findings in the modern theory of art, but the knowledge transfer aspect is not topical in art games at the moment. The author intends to encourage art game creation that would incorporate the research results in contemporary arts and thus transfer those results to the general public of players. This study supports knowledge transfer, research and educational focus in the area of contemporary art games by creating a prototype of a game.

There have been some attempts to popularize contemporary art in gaming, but the new tendencies, intertextual links and other aspects of the current situation in the art world have not been well presented. Art games undoubtedly have the potential to raise the intellectual capital of gaming by reflecting the research results in art, yet the knowledge aspect is not presently topical in art games. Some of the games of the first decades of the 21<sup>st</sup> century tend to be intellectually charged as they represent cultural

activism and critical thought. For instance, *Undertale* (2015) reflects upon the mainstream games and reacts against their violence. The player is invited to choose whether to destroy or to talk to an enemy. The authors of *Undertale* have created a very mother-like character that is missing in the mainstream games: Toriel, the mother, genuinely cares about the players' actions. *Braid* (2008) is a critique of the common game mechanism: the player is capable of reversing time and returning the game to situations repeatedly to solve puzzles he/she has missed.

*Undertale* and *Braid* exemplify active, evaluative choices by players and a will to change the existing principles in gaming. *Velvet-Strike* (2002), *Every Day The Same Dream* (2009), and *Passage* (2007) also belong to this type of games. They refer to Mary Flanagan's humanist approach stating that games have to emerge out of intellectual traditions. Flanagan's concept of "critical play" challenges the traditional but limited rules of the game, defying the dominant game modes and environments, interfering with alternative ideas, and working on new, flexible game models with a culturally saturated mission (Flanagan, 2009: 256). Her concept is close to the idea presented in this paper that intellectual capital should be transferred to the player.

The paper is built on a basis of literature analysis (discourse of the game theory) and art game analysis. The article references the game theorists Mary Flanagan, Igor Mayer, and others. Mayer points out the knowledge gap in the discourse of contemporary gaming, and Flanagan states that games have to emerge out of intellectual traditions.

Around 200 art games were analyzed in the course of this research so far, and the research project is still in progress (the new art game is intended to be ready in 2021). These games are being treated as educational artefacts for learning the history of new media art.

The art game discourse is a quite narrow field that rests upon the general gaming theory, but art game is a specific field and its analysis requires a particular approach. This article seeks to develop the existing digital art game methodology. There are a lot of art games that express the ideas of artists and the spirit of our century. The games were created by Pippin Barr, Jason Rohrer, and many other digital artists, however, the field of art game lacks the aspect of knowledge transfer. Art game mainly embodies aesthetical features, although it could show the full picture of modern art, and the results of the contemporary art research. Art game should inform the player about how the art of today is related to art history, and what are the links of contemporary art to the previous art paradigms. There should be a category of art games that connect modern art trends to the context of their past. Next to the artistic and entertaining aspect art game should bear an educational dimension. Art game could be an effective tool for disseminating the results of contemporary art research.

## 2 DISCUSSION

### 2.1 The Situation in Art Games Regarding Research Results in Modern Art

In order to enrich the theoretical framework of the digital art game as serious gaming, this study proposes to emphasize the aspect of research in this area. Thus, it would help to solve the problem some colleagues have underlined: that the existing models of game-based learning give “few research designs” (Mayer et al., 2014: 509) and “very few methodological proposals for educational video game development have been published in scientific literature” (Lope, et al., 2015: 90). There are a few studies that touch upon the aspect of aesthetics, but

modern art seems to be a marginal territory in game studies so far. Robin Hunicke and his colleagues propose to examine aesthetics as one of the important aspects of the game analysis, but art games have not been mentioned (Hunicke, LeBlanc, Zubek, 2004: 2). Espen Aarseth has outlined a games research perspective called game-world that includes art, aesthetics, history, and cultural/media studies (Aarseth, 2003: 3), however, again the art games have not been named. An article by Lars Konzack clarifies the socio-cultural perspective in digital game analysis. He proposes to analyze “culture around computer games”, and notes that in the existing game discourse, there are quite a few studies of games as cultural artifacts including their aesthetic qualities (Konzack, 2002: 98).

It is true, as the game theorists Jo Bryce and Jason Rutter have pointed out, that “the growth in papers about digital games across the sciences, social sciences, and the arts and humanities serves to highlight the rich diversity of interest in digital games” (Bryce and Rutter, 2006: 3), yet one must agree that the research of modern art games in particular has been neglected. In the game discourse, the aspect of contemporary art is less well represented than, for instance, anthropology (Burgos, 2015) or feminism (Flanagan, 2005).

Furthermore, there are few games that demonstrate attempts to represent modern art theory and works of artists. One should mention Patrick LeMieux’ Art Games (2008-2009). LeMieux’ project is a series of art games designed to be projected and played on top of original paintings by Yves Klein and four other prominent monochromatic artists. The five games “explore aesthetic traditions” of games and show that moments of contemplation are more “useful” than the fictions of the mainstream gaming (LeMieux, 2016).

Re-enacting artistic performances in a game environment is a standard practice in game art (a field of art that is made of or related to digital games). In 2007, Mark Beasley created a trilogy of artistic video games Vito Acconci, in which the player can re-enact the famous performance of “Following Piece” (1969) by Acconci. In the original “Following Piece”, the artist followed a randomly chosen stranger through the streets of New York. In Beasley’s game, the goal is “to stalk a person on the street but when the distance between the stalker and the followed becomes too large, the game is over” (Jansson, 2012). Thus, art games are aimed at illustrating the art situation of today. Nevertheless, as far as the author of the current study has found, there are no art games that would convincingly exemplify the research

results in contemporary aesthetics, even if research has been a common practice between game designers while creating a game. Digital game designers are simultaneously researchers today, as the game is often bound to research. Andrew J. Stapleton has defined this circular process of game creation: research and theory are contextualized into game design, and afterwards the results of game design are again transformed into research and theory (Stapleton, 2005).

The new game project Art Space is based on research into modern aesthetics: it will be an art game that is focused on the historical heritage of contemporary digital art. Thus, it follows the contemporary tendency to build games on the basis of investigation. It also follows the common practice in contemporary art to constantly widen the horizon of possibilities by means of research. The tradition emerged in Europe around the 1960s as an artistic practice that unites researchers and artists. Centers of art and science, groups of artists and scientists, complex events i. e. festivals, exhibitions and conferences have been based in this tradition: OuLiPo (*Ouvroir de Littérature Potentielle*), SIGGRAPH (Special Interest Group on Computer GRAPHics and Interactive Techniques), ZKM (*Zentrum für Kunst und Medientechnologie*), to mention just a few of them.

## 2.2 The Situation of the Game Theory Regarding Knowledge Transfer

In this research project, the concept of knowledge transfer means that knowledge gathered during the research phase is being transferred to society by the media of game as defined by Tobias Mettler and Roberto Pinto. They use the existing framework of knowledge transfer (Lavis et al., 2003: 221) and demonstrate it graphically (Mettler and Pinto, 2015: 259).

However, within the context of digital games this concept has been granted little attention. In search of an advanced game methodology, Igor Mayer and his colleagues suggest a methodological approach that would include “a critical and reflective discourse on a dynamic body of knowledge” identifying “knowledge gaps” (Mayer et al., 2014: 504). They state that serious game-based learning needs to be transferred “to the real world” (Mayer et al., 2014: 502). However, Mayer does not explain the concept of transfer in detail. Katrin Becker and Jim Parker present a gaming methodology model that involves research, but no knowledge transfer (Becker and Parker, 2014: 181, 189). Marcos S. O. Almeida and Flávio S. C. da Silva show an overview model of

game design (Almeida and da Silva, 2013: 20), but, do not discover a tendency of knowledge transfer.

In a strong relation to the knowledge transfer framework updated by Mettler and Pinto in 2015, the aim of the new digital game Art Space is to connect the research results with the player so that the knowledge acquired in the research process would be transferred to the general public. As a result of learning the player would be eventually able to orientate better in the aesthetics of contemporary art and the gained knowledge would spark his/her interest in modern art. This is necessary because the existing theoretical principles offered by the game researchers are not shaped for art games in particular and there is no focus on knowledge transfer.

To effectively realize this transfer, the author is using strategies defined in the discourse of gaming. For instance, key components that determine the effectiveness of an educational game are; the selection of texts, audio materials and pictures to be learned, and their organization into appropriate audio-visual and verbal representations (Mayer, 1997). According to Wong (1996), a good educational game should create an environment for continuous improvement, and present an unlimited ceiling on the player’s performance levels.

## 2.3 Concept of Art Space and Its Contribution to the Art Game Studies

The new game’s content is creative and educative. The player of this game will be able to create his/her own visual and acoustic artifacts using the current trends of digital art inherited mostly from modernism, such as, glitch, pixel aesthetics, hacking, vaporwave, generative art elements, noise, vaporwave. They have been analyzed by the author elsewhere, but lie outside the scope of this article (Gintere, 2019a; 2019b). Art Space will familiarize the player with its historical context and encourage him/her to create individual objects. Art Space mechanics allow the user to act creatively with the provided tools. The player will see the world from a first-person perspective using the standard first person shooter controls with additional editing options.

Art Space is intended to be a building/constructing game like The Sims (2000), Minecraft (2011) and Fortnite (2017). Work on the new game is being carried out in collaboration between the researcher, Dr.art. Ieva Gintere (Vidzeme University of Applied Sciences, Latvia) and the game artist, Mag.art. Kristaps Biters (Latvia). The game is being created in the framework of a post-doctoral project led by Ieva Gintere during 2018-2021

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### 2.3.1 Relation to Serious Games

The Art Space hopes to refine the artistic skills of players, to stimulate their creative forces, and intends to correct the existing deficiency in serious gaming related to art education. Serious games are made, for instance, to inform about and to teach first-aid skills, like Pulse! (2007), while Lure of the Labyrinth (2009) teaches mathematical concepts. Stop Disasters! (2007) tells about the areas exposed to natural disasters – floods, fires, earthquakes – and how to deal with them. One must mention also the famous Minecraft (2009), Trauma Center: Under the Knife (2005), Balance of the Planet (1990), Spore (2008), CodinGame (2012), and many other games that teach about various disciplines (Djaouti, Alvarez, Jessel, 2011: 3, 11, 15). The number of serious games is remarkably large, but, to be clear there is “a focus on the game-based learning of children”, but comparatively little attention to adult learning outside formal education (Mayer et al., 2014: 509).

In the discourse concerning art games, the educational aspect of art games has not been well described to date. Michela Mortara and some other researchers have documented the situation in serious gaming around cultural heritage, but they never mention the subfield of contemporary art. Mortara only describes a large number of serious games focused on cultural awareness and “intangible cultural assets like tribal beliefs, customs, and ceremonies”. That author has named serious games devoted to ancient Rome, Jewish culture, Japanese etiquette and many others (Mortara et al., 2014: 319). However, there are no games that would exemplify education related to contemporary art. Likewise, Boyan Bontchev only reviews the situation of serious games concerning cultural heritage (Bontchev, 2016); Eike Falk Anderson et al. have sketched the area of serious games for cultural heritage by mainly focusing on the technological aspects (Anderson et al., 2009). Nevertheless, not a single game from the niche of modern art is named specifically.

### 2.3.2 Profile of Art Space

The new game encompasses the research results carried out by the author of this project about existing art games in the light of their historical heritage. It is built on the basis of an aesthetical analysis of the art games produced between 1999 and 2019. References to the newest games created by artists in the first decades of the 21<sup>st</sup> century will serve as educational

items for the player of the new game. While activating the respective trends in the palette of effects, the player will learn about their historical antecedents. He/she will be invited to create an individual artistic space using the effects and elements from the palette of the game, and each of those means of expression will be accompanied by their historical antecedents.

For instance, by using the effect of digital audio-visual glitch, the player will be introduced to works like the Untitled Game (1996) by Jodi that represents the tendency of glitch in the modern art game area. Or, by using the effect of noise, the player could be introduced to an artwork such as Shrine Maidens of the Unseelie Court (2017) by Tabitha Nikolai who exploits the effect of noise in her game art pieces.

As well as citations from the world of digital games, references to visual art would be incorporated into the game. For example, by entering the pixel room, the player could discover its precursors in the modernism era such as cubism and constructivism (figure 1). By entering the generative art room, he/she will meet the Marilyn Monroe series by Andy Warhol and other generative art antecedents (figure 2). Thus, the new game will encompass the historical background of art gaming aesthetics today.

The game will only show some current trends of the contemporary game aesthetics, their historical antecedents and examples of the games of the last decades. Art Space cannot encompass all the art game tendencies, therefore some of them will be left out of the game and only presented in the published articles in order to illustrate the historical background of the contemporary game world. This article will briefly demonstrate an example of the kitsch/camp style that could be included in the art game.

Art Space follows the game theorists who argue that in order to raise curiosity towards cultural heritage in games, one should invite the player to individually form artifacts or “customized characters”. This approach might effectively attract people to the educational games. Creation is “a powerful key to elicit emotions” according to Antonio Origlia and his colleague’s conclusions. A game where the player creates his own world, evokes his intrinsic motivation and is played to have fun. Customized characters are an important component of pleasure and consequently of a successful game (Origlia, Chiacchio, Di Mauro, Cutugno, 2016: 19-22). The antecedents, in their turn, would form a story line in Art Space assuming that “humans find story elements profoundly meaningful and are at a loss when they cannot see the world in terms of such elements” as the game theorist James Paul Gee has outlined. In a game we should try, he says, “to

interpret everything that happens as if it were part of some story" (Gee, 2006: 59). Thus, objects that the player of Art Game will individually form, will be linked to a pop-up window with their antecedents and the game would be designed as a story that tells about the historical background of the particular styles and effects chosen by the player.

### 2.3.3 Example

Art Space invites the player into a virtual art academy with nine rooms dedicated to glitch, noise and other trends of art gaming where he/she can learn and create individual artefacts. The style of kitsch/camp could be studied by player as one of the topical trends of digital art today. Led by a voice behind the scenes, the player will be familiarized with the style, its antecedents and its contemporary examples, and invited to form objects. Next to other trends, kitsch/camp would show the historical background of the modern game aesthetics. In the framework of virtual studies, Art Space would demonstrate the antecedents of kitsch, such as Alexandre Cabanel's *The Birth of Venus* (1863), Giacomo Grosso's *Nude* (1896), William Adolphe Bouguereau's *Love on the Look Out* (1890), and others. In the art history, these works belong to a style of the late 19<sup>th</sup> century called *l'art pompier*. They would appear in the pop-up window of the game demonstrating the historical past. A more recent antecedent of kitsch is the period of modernism where it was represented, for instance, by the sophisticated irony of Otto Dix (figure 3), the subtle decorative pictures of Henry Matisse, even more directly by the postmodern and pop art works of Andy Warhol, and others. In Art Space, some pieces by those artists would be used as the examples of the historical kitsch.

Kitsch and camp belong to popular rather than high art. They review the concept of beauty in the most intellectual cases. They are said to be fake art, although they may have an ironic value and play a critical role. Stylistically, they are close but not identical. Kitsch is characteristic of cheap representation, it embodies cliché and excessive garishness. Garden gnomes are usually mentioned as an example of kitschy, bad taste in its worst manner. The purpose of a kitschy object or design can be utilitarian, solely ornamental or decorative, yet it may belong to the academic art and represent a humorous concept that belongs to a serious art expression. Thus, it can be enjoyed also by connoisseurs of art in the well-known *Balloon Dogs* (1994-2000) by Jeff Koons.

Camp is related to kitsch since it also represents poor taste and irony, but it can be more vulgar, bizarre, and showy. It is less naïve than kitsch may be. Camp is defined by Susan Sontag as exaggerated, flashy and frivolous. In the meantime, Sontag writes that camp is playful, its' goal is "to dethrone the serious", and it is good because it is "awful" (Sontag, 2018[1964]: 10, 13).

Kitsch/camp is one of the current trends of game art. In works such as Pin Pon (Triantafyllidis, 2015), Bananoculus (Triantafyllidis, 2015) or How To Get An Education (Howlett, 2016-2019), one can see the ensemble of the mentioned traits of kitsch/camp: the style is gaudy and unserious. In the best cases such as Theo Triantafyllidis' Painting (2018), the approach is also critical: in a satirical way, the work questions the concept of art. The central creature of the Painting is a mixture of male and female, as well as of demon (figure 4). He is a poorly dressed, muscular person who confesses in the beginning not to "get painting". To me, "it does not make much sense", the person says. But then he starts to paint and in the end, he is "so much into it", and "fully understands it" (Gamescenes, 2019).

The aesthetics of this work is stylistically deliberately cheap but meanwhile it has an artistic value since it is conceptually loaded. Even if its' means of expression are excessive (the huge creature sounds and looks quite freaky), the work represents a light, humorous mood. Besides, it has a reflective mission, it refers to the universal problem of art's identity, and attempts to engage one in a creative activity in order to understand art.

A kitschy object can be too directly emotionally charged, melodramatic and sentimental. In that case, it oversteps the red line of classical aesthetics that determines good art as something reflexive. On the other hand, Triantafyllidis' Painting exemplifies the idea of good artwork rooted in the Critique of Judgment (1790) by Immanuel Kant who has declared that there must be a certain critical distance between the aesthetical object and its observer (Kant, 2006: 49). If the work offers emotional gratification without intellectual effort and without the requirement of distance, the object cannot be considered as aesthetical according to Kant. Triantafyllidis has managed to marry kitschy lightness with a capacity for reflection. His work stimulates the players' intellect and entertains them at the same time, thus it meets the classical idea of good taste.

## 4 CONCLUSIONS

The framework of the Art Space project is determined by the post-doctoral program that requires a potentially marketable product coupled with theoretical study. Art Space is created as a possibly marketable game and could function as a startup in future just like, for instance, Musemio, a virtual reality game that aims to bring culture knowledge closer to children through playing (Musemio, 2019). In general, the mission of Art Space is much like this, with the difference that it has been created not for children, but for youth and grownups. Art Space will be a suitable media for education at universities and colleges, nevertheless, its highest goal will be to reach the enthusiasts of art outside formal education.

The post-doctoral project led by Ieva Gintere encompasses a body of articles published during the time period of 2019-2021 and the game Art Space. In the papers devoted to Art Space, the author has analyzed the aesthetical tendencies of modern digital games in the light of their historical heritage mainly rooted in the era of modernism in art. Since the project is still in progress, this article only describes the general concept and design of Art Space and the articles describing its details will follow.

This paper shows the big picture of the project focused on the heritage of modernism in digital games. The mission of the project is to encourage the manifestation of knowledge of this heritage in the future art games and to promote the discussion of art research in the art game discourse. The project intends to explain the specific means of expression governing the contemporary game language such as kitschy expression as a continuation of modern and postmodern styles and to show the gaming trends in the context of their cultural backgrounds.

This paper is devoted to the aesthetical heritage, but the suggested methodological approach is certainly not limited to the area of aesthetics: it encompasses all subjects of modern art research. The author shows the situation in the game discourse, analyzes the role of research and the aspect of knowledge transfer in the art game theory. Since not much has been written on the subject of knowledge transfer so far, the study presents an innovative aspect of art game where the research results into contemporary art are transferred to players using the modern media of digital game.

A part of gaming has already been culturally sophisticated for about 20 years now and games surely could also take on the function of knowledge transfer in the field of modern art, however, this emphasis is missing. The article speaks to art game

designers and theorists, and suggests creating a niche of art games that would envisage the research results in contemporary arts and transfer those results to the general public of players. The new game Art Space is presented as an example of this approach, and the kitsch/camp style illustrates the strategy by which the research results could be manifested in the new game. Art Space belongs to the large number of games with a goal of supporting knowledge of culture yet it hopes to open a new page in the edugames field devoted to research into contemporary art. The research results, in the form of articles published within the framework of this post-doctoral study, are an integral part of the project and serve as a background for the new game's prototype. The project hopes to raise the interest of the wider public in contemporary art and music, point out the newest creative tendencies and describe the modern audio-visual aesthetics.

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## APPENDIX



Figure 1: Art Space. Pixel room with the antecedent, Tatlin's Tower, era of constructivism (screenshot, 2020).

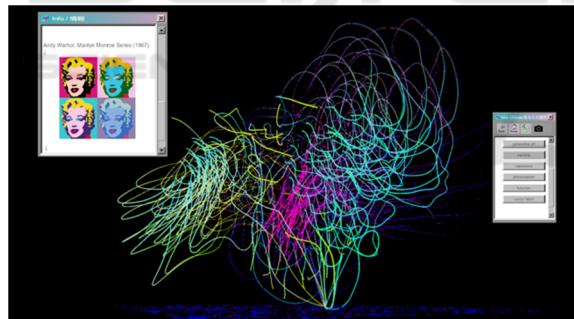


Figure 2: Art Space. Generative art room with the antecedent, Marilyn Monroe series by Andy Warhol (screenshot, 2020).



Figure 3: Otto Dix, *Salon 1* (1927) (Bibliokept, 2014).



Figure 4: Theo Triantafyllidis. Painting (Gamescenes, 2019).