An Educational Digital Environment of Contemporary Aesthetics Focused on Slow Gaming

Ieva Gintere Da

Institute of Social, Economic and Humanities Research, Vidzeme University of Applied Sciences, Cēsu street 4, Valmiera LV4201, Latvia

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Abstract: The article discusses the concept of an educational digital environment with elements of game, Art Space

which has been created on the basis of analysis of the art games produced between 1999 and 2020, and incorporates an explanation of their cultural context. Art Space is related to serious art games and focuses on the aesthetics and historical heritage of contemporary games. It invites the user into a virtual art academy with several rooms where he/she can create individual artefacts. Art Space is intended to clarify the stylistics of contemporary art games and hopes to open a new page in new media art devoted to research into contemporary art. The article provides a review of recent literature on digital art- and edugames, as well as proposes an

innovative approach in digital media creation using the aspect of slow gaming.

1 INTRODUCTION

This paper traces the development of a new digital environment, Art Space. It belongs to the niche of modern art- and educational gaming. Art Space is identified as a digital environment because its interactivity is less important in a comparison to a regular game. The goal of Art Space is to educate its players concerning digital aesthetics as well as to stimulate reflection on its conceptual aspects. Because Art Space is strongly linked to serious gaming, its theoretical discourse is related to the research into gaming. This paper presents an analysis of the pertinent literature concerning game theory and art game analysis focusing on the aspect of slow gaming. The author suggests treating the digital environment as an effective tool for transferring knowledge of contemporary aesthetics to college and university students as well as to a wider, general audience.

Work on the digital environment is being carried out through collaboration between the researcher, Dr.art. Ieva Gintere (Vidzeme University of Applied Sciences, Latvia) and the game artist, Mag.art. Kristaps Biters (Art Academy, Latvia) in the framework of a post-doctoral project led by Ieva Gintere between 2018 and 2021. The methods used are stylistic analyses of games as well as studies of

gaming theory. The project encompasses a body of articles published during the development of Art Space with a theoretical analysis related to its concept (Gintere, 2019; Gintere, 2020a; Gintere, 2020c) and the creation of a demo version of Art Space (Gintere, Biters, 2020).

2 DISCUSSION

The author of this study suggests developing the educational aspect of contemporary aesthetics in serious gaming that has been missing to date. In Art Space, which is devoted to the subjects of education and contemporary art, the mode of slow gaming has been used in order to pave the way to a thoughtful kind of individual education as well to support a more reflexive and immersive approach to modern artistic phenomena, and to encourage their understanding and appreciation.

2.1 The Situation in Edugames Regarding Contemporary Aesthetic Styles

Recently, digital educational or serious gaming has been developed in multiple directions. However,

^a https://orcid.org/0000-0003-0203-3351

education related to contemporary aesthetics has been neglected. Several authors have presented the research situation into modern edugaming without mentioning the subject of contemporary aesthetic theory. As Baptista and Oliveira (2019) have noted, "few cultural variables" were identified in the literature about serious games, including little mention of the specific area of modern art and aesthetics. In the literature review by Malegiannaki and Daradoumis (2017) there are no serious games devoted to this field. The lack of this kind of gaming is also obvious in a more recent article by Ferdani et al. (2020). They have examined the state-of-the-art of games around culture, but no aesthetic aspects were taken into account.

There are many games with an aim to reconstruct the phenomena of the past such as the spiritual beliefs of the ancient Egyptians and the culture of ancient Rome (Mortara et al., 2014). There has been little focus on the present time, so there is a need to document, analyze and categorize the currently relevant aesthetical environments in digital games from the point of view of today. By doing this the research community could thus gain an accurate image of the present-day artistic styles and document changes as they develop. The audio-visual traits of art games, the specific means of expression, appearance of different styles, nuances of shapes, colors, manner of design and other artistic features are almost left aside in gaming theory. Since games can have a short shelf life today, the aesthetic representations in some games are at risk of being lost after a period of time. There are few scientific studies documenting stylistic analysis of games. Abstractionism is a recognized category of games (Gee, Dolah, 2018), Koc has examined the modern trend of vaporwave (Koc, 2017). Photorealism is present in the discourse of games, too (Järvinen, 2002). However, an illustration of aesthetic styles in art gaming is scarce. The author of this study has recently sketched the profile of gaming stylistics and named games representing them (Gintere, 2020b).

2.2 Complexity of Aesthetics Today

The lack of serious games about contemporary aesthetics could be explained by its complexity. The aesthetic trends of contemporary art are not an easy subject to master. They may seem to be edgy and not easily understandable. This is caused by the intellectually charged tradition of modernism that still governs our cultural arena and requires a specifically educated public. Because the public today is mostly orientated towards gaining practical knowledge, it

might miss the metaphysical information that can be obtained by studying arts' theory and philosophy and thus miss becoming familiar with contemporary cultural capital. Aesthetics today possess a complex stylistic language that can be difficult to understand if the public is not informed about its derivations, and cultural context. Particular styles might need to be decoded. For instance, it is important to explain why the quite robust style of pixels is still used in gaming very frequently while there exist other technical resources to create a photorealistic environment with curved lines and smooth figures. Pixel style refers to the classical values of aesthetics where geometrical forms are said to be the best images of absolute beauty and harmony. A geometrical shape has the status of an ideal form recognized not subjectively, but universally (Kane 2014), i.e., everyone must agree it is perfect. Even if this concept seems to be outmoded, it is deeply rooted in Western culture and the modern means of expression does not improve upon it.

One of the general goals of Art Space is to express the intellectual baggage that each style encompasses as simply as possible. The information should be easy to perceive in order to be enjoyed.

The author of Art Space suggests that game-based digital media should become agents of cultural transformation with an aim to help to introduce contemporary art traditions to an audience even wider than students of art. Shliakhovchuk and her colleague in a recent literature review concerning serious gaming claim that "video games explicitly or implicitly encourage gamers to absorb their built-in cultural messages" (Shliakhovchuk, Muñoz García, 2020). Games have been proven to be capable of affecting the way people think and develop intercultural literacy. They are acknowledged to be tools inhabiting and disseminating cultural meaning. Gaming has a capacity to stimulate intellectual awareness in particular when it is not oriented to a rapidly achieved result, but rather when oriented towards exploration and making deliberate choices.

2.3 Slow Gaming

Art Space has the aim to find an effective approach for explaining the difficult area of modern art and its theoretical heritage. This explanatory style largely dictates the tempo of play in Art Space. It is a sandbox-style game-related contemplative environment with an art gallery and short textual materials that are intended to clarify the theoretical aspects of styles such as pixel, generative art, futurism, and others. Art Space has been built as a virtual art academy with several rooms representing

each style. The users are guided by a narrator. In the game the Orbs of Knowledge discuss the cultural context of styles, show examples in gaming, and their antecedents in the era of modernism. In addition, the user is invited to act creatively using the stylistic means of expression of each room. The creative elements also affect the dynamics of interaction.

During the last few years, some authors of new media art have demonstrated an alternative feeling of time and an unusual emphasis on reflection. Although the paradigm of existence in the modern world has proved to be fast paced, recently there has been a tendency towards slow interaction in gameplay. As the gaming theorist Tim Marsh has stated, slow games are "intended to focus attention/concentration, and provide openings and opportunities for reflection. contemplation, and learning". The authors of games with a slow interaction are artists Ernest Edmonds, Michael Brough and Ian Bogost, to mention a few. Slow games are created with the aim of raising awareness, of "deep attention, reflective, and contemplative experiences", in order "to stimulate thought and shape experience", and thus to open better opportunities for deepened thought (Marsh, 2016).

In Art Space play is "similar to performing, or dancing with technology". It aims "to create a sense of calm and allow participants to break away, clear their minds, and unwind". The style of interaction in Art Space depends on the user. Although the tempo is not permanently and obligatory slow, its' flow is similar to the games that could be called contemplative such as The Night Journey (2010) which is aimed not at fast reaction but rather at reflection and exploration of the environment. Also, in the famous Minecraft (2011), as Tim Marsh has noted, the speed of the game "is dictated largely by the player" yet one can see moments "when the player stops and pauses to watch the beauty of a sunset or marvel at the sudden rain" (Marsh, 2016). This kind of lingering is characteristic of games that enhance the capacity for philosophical reflection like Every Day the Same Dream (2009) and Graveyard (2008).

This group of games has been described by (Chittaro, Sioni, 2018), as well. The authors have carried out research regarding existential video games which are "employed to encourage users to reflect on the impact of death awareness on their lives". This "could be considered as a sub-genre of serious games". Moreover, there are many serious games and art games with the purpose of reflection that could be classified as contemplative. In these games the player can take his/her time without a risk of breaking "the subtleness of the experience" caused by a time limitation and without interrupting "the flow of

emotions" the game can evoke.

Furthermore, there are game-based artworks where the mechanics are much slower such as the "game poems" The Slow Year (2010) by Ian Bogost, Vesper.5 (2012) by Michael Brough and the Shaping Form artworks (2007) by Ernest Edmonds. These activities might take days or months for the player to see the changes caused by interactions such as walking-by or hand waving. Vesper.5 only allows the player to take one step a day. The work replays all previous steps evoking reflection on steps that have already been taken, before pausing to wait for the player to take their daily step (Marsh, 2016). These works develop the capacity for sedate observation, consideration, and peacefulness.

Papa Sangre (2010) is a unique example of slow gaming that could be called an audio horror game. It is focused on the acoustical experience. "The player must have patience and move slowly through the space [...] Through controlling the pacing in this manner, the game forces players to listen while they move, paying attention to the sounds that other characters or objects are making as well as to their own sounding bodies in the virtual world" (Collins, 2013).

In comparison to a purely entertaining game, the user of Art Space needs more time to reflect upon the messages and atmosphere of the digital environment. The author of this study believes that this type of game-based works has the potential to raise cultural awareness and to develop an intellectual approach to disciplines in the humanities. In these disciplines, phenomena "are understood to change through consecutive readings and interpretations" and are "highly contextual and subjective" (Levenberg et al., 2018). Art Space provides a space to question cultural ideas and stresses individual meaning-making. This approach has been less important in gaming to date since most games have been largely orientated towards action. However, a more developed reflective approach would diversify game culture, widen the scope of the analysis, "inscribe new value" into video games and "pave the way for a new generation of games" (Styhre et al., 2018).

Slow play also refers to the concept of critical play coined by the well-known game designer and theorist Mary Flanagan. She claims that games should not link players to the "slavery of play" but should rather help them better understand the deep significance of artists' messages and see the world in new ways (Flanagan, 2016). This kind of perception regulates the tempo of play and excludes rushing. The contemplative approach to play in Art Space determines its rather moderate speed of interaction, but this can be combined with a rapid style of play.

2.3.1 Details of User Activities in Relation to Slow Gaming

Art Space typifies slow gaming for several reasons. Firstly, its user is invited to read the textual information that explains the historical and conceptual context of styles. This requires serious attention and time even though the texts are laconic. The metaphysical information that can be obtained by an insight into arts' theory and philosophy will not be revealed quickly. Yet the appealing virtual space in the game that talks about the roots of styles in a most simple way has been created with the goal of making users intrinsically motivated to gain new knowledge concerning contemporary art. Thus, the author of Art Space intends to support the process of education regarding styles and strengthen an appreciation as well as discursivity of contemporary culture capital.

Secondly, the user of Art Space is able to create his/her own artefacts in the virtual art academy using the current trends of digital art inherited from modernism, such as, glitch, pixel aesthetics, hacking, generative art, noise, futurism, photorealism, naïve art, and the kitsch/camp style. The player must complete the tasks by building and editing objects to represent the given art style. Building and editing mechanics give the player the freedom to replicate the specific styles. Apart from creative activities and the educative/informative nature of the game, there are no rules to follow and no specific goals to achieve. The player explores the stylistics and finds the magic of the artistic effects of each room.

The third reason why the interaction in Art Space can be described as relatively slow is that the user will be acquainted with the historical antecedents of each style and its contemporary witnesses. Observation of the artworks by the game players is also considered a slow, meditative action. The references to the games made by artists in the first decades of the 21st century will serve as educational items. For example, by using the effect of glitch, the player could be introduced to Error City Tourist (2016) which is an example of glitch in the modern art game area. Likewise, the player could discover precursors of glitch in the modernism era through the painting by Vincent van Gogh, Bedroom in Arles (1888). It shows the first signs of deformation in modern art that turned into significant deviations from images of conventional reality. Thus, the new game will encompass the historical background of digital art games today.

Art Space has an educational function, yet above all, it is an artefact that invites the users to immerse themselves in the aesthetic atmosphere. Even more important than the informative, and creative aspect for the user is the opportunity to enjoy the rooms of styles in Art Space. This process cannot take place hurriedly. Art Space offers nine rooms of sophisticated aesthetic styles. For instance, in the room of Generative art fine colorful lines are freely drawn to obtain multiple shapes (figure 1).

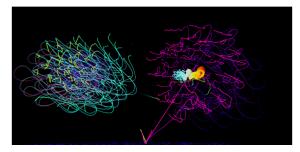


Figure 1: Art Space. Generative art room, screenshot (Gintere, Biters, 2020).

The Hack room surprises with slowly horizontally moving transparent waves and dark geometrical forms whose grid is tinted brightly green. The user needs to build a construction in order to exit the hacked space (figure 2).

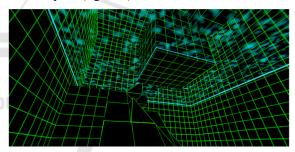


Figure 2: Art Space. Hack room, screenshot (Gintere, Biters, 2020).

The Pixel room is a hall with a meadow-like floor that blossoms with tiny flowers and other floristically designed elements in pixel forms surrounded by a light green forest (figure 3).



Figure 3: Art Space. Pixel room, screenshot (Gintere, Biters, 2020).

The noise room will familiarize the user with the noise-related sound examples. Antecedents to these are explored in a black hall with a chess-like floor illuminated by pastel-white lamps, marble mystic spheres and screens of noise visualizations (figure 4). Each of the rooms has its own stylistic character and mood. They make an ensemble of contemporary aesthetic trends demonstrating a particular stylistic signature and cultural context.

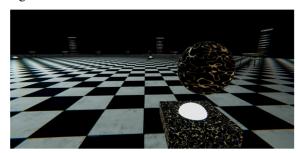


Figure 4: Art Space. Noise room, screenshot (Gintere, Biters, 2020).

4 CONCLUSIONS

The goals of the innovative digital environment named Art Space are to educate its players concerning digital art, and to suggest a new trend for edu- and art gaming focused on contemplation and slow gaming. Art Space is an experimental example of this endeavor. This product has been created as a prototype for emerging gaming and educational platforms with an aim to enhance a wider acceptance of contemporary aesthetics, as well as to support an understanding of its artistic significance. Following the completion of the prototype of Art Space, the author of this article hopes to create an alternative digital soundscape of sound art and immersive aesthetics. It would offer a virtual trip into the modern tradition of noise-related artefacts, coupled with the feeling and concept of immersion, while including their cultural backgrounds. The final phase of the Art Space project contains a study to collect the players' reactions to this aesthetic environment. This survey is intended to show the educational impact on users as well as recording their experience of slow gaming in Art Space.

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REFERENCES

- Baptista, G., Oliveira, T., 2019. Gamification and Serious Games: A Literature Meta-analysis and Integrative model. In *Computers in Human Behavior*, 92 (2019), 306-315.
- Chittaro, L., Sioni, R., 2018. Existential Video Games: Proposal and Evaluation of an Interactive Reflection about Death. In *Entertainment Computing*, 26 (2018), 59-77.
- Collins, K., 2013. Playing with Sound: A Theory of Interacting with Sound and Music in Video Games, The MIT Press, Cambridge.
- Ferdani, D., Fanini, B., Piccioli, M. C., Carboni, F., Vigliarolo, P., 2020. 3D Reconstruction and Validation of Historical Background for Immersive VR Applications and Games: The Case Study of the Forum of Augustus in Rome. In *Journal of Cultural Heritage*, vol. 43, 129-143.
- Flanagan, M., 2016. Critical Play: The Productive Paradox. In A Companion to Digital Art, Ch. Paul, ed. John Wiley, & Sons, Inc., Oxford, 445-459.
- Gee, L. L. S., Dolah, J., 2018. Influence of Form, Texture and Shading on 'Abstract' and 'Realistic' Style Preferences: An Overview of Design Characteristics through Incidental Thematic Results. In *Advances in Social Science, Education and Humanities Research*, 207 (3rd International Conference on Creative Media, Design and Technology). Atlantis Press, 38-43.
- Gintere, I., 2019. A New Digital Art Game: The Art of the Future. In 13th International Scientific Conference "Society, Integration, Education" (SIE-2019) Proceedings, vol. 4, 346-360. Rēzekne Academy of Technologies, May 24th-25th. DOI: http://dx.doi.org/10.17770/sie2019vol4.3674.
- Gintere, I., 2020a. A Perspective on a New Digital Art Game: The Approach of Research and Knowledge Transfer. In *Proceedings of the 12th International Conference on Computer Supported Education (CSEDU-2020)*. Institute for Systems and Technologies of Information, Control and Communication, Prague, May 2nd, vol. 1, 311-318, DOI: 10.5220/0008920603110318.
- Gintere, I., 2020b. Art Space: An Experimental Digital Art Game. In *Proceedings of the 14th International Scientific Conference Society, Integration, Education (SIE-2020)*, vol. 5, 649-660. Rēzekne Academy of Technologies, May 22nd. DOI: http://dx.doi.org/10.17770/sie2020vol5.4817.
- Gintere, I., 2020c. Fusing Artgame and Edugame: An Innovative Digital Game of Modern Aesthetics.

- European Proceedings of International Conference on Education and Educational Psychology. 11th International Conference on Education and Educational Psychology (ICEEPSY-2020), Sicily, Italy, 6th-8th October. Available at: https://www.european proceedings.com/files/data/article/10044/12448/article 10044 12448 pdf 100.pdf.
- Gintere, I., Biters, K., 2020. Art Space: demo (Windows version). Available at: www.artspace.va.lv.
- Järvinen, A., 2002. Gran Stylissimo: The Audiovisual Elements and Styles in Computer and Videogames. In *Proceedings of Computer Games and Digital Cultures Conference*. Tampere University Press.
- Kane, C. L., 2014. Chromatic Algorithms: Synthetic Color, Computer Art, and Aesthetics after Code, University of Chicago Press, Chicago, London.
- Koc, A., 2017. Do You Want Vaporwave, or Do You Want the Truth? Cognitive Mapping of Late Capitalist Affect in the Virtual Lifeworld of Vaporwave. In *Capacious: Journal of Emerging Affect Inquiry*, 1 (1), 57-76.
- Levenberg, L., Neilson, T., D. Rheams, D., 2018. Introduction: Research Methods for the Digital Humanities. In *Research Methods for the Digital Humanities*, Palgrave Macmillan, Cham.
- Marsh, T., 2016. Slow Serious Games, Interactions and Play: Designing for Positive and Serious Experience and Reflection. In *Entertainment Computing*, 14 (2016), 45-53.
- Malegiannaki, I., Daradoumis, T., 2017. Analyzing the Educational Design, Use and Effect of Spatial Games for Cultural Heritage: A Literature Review. In Computers & Education, vol. 108, 1-10.
- Mortara, M., Catalano, Ch. E., Bellotti, F., Fiucci, G., Houry-Panchetti, M., Petridis, P., 2014. Learning Cultural Heritage by Serious Games. In *Journal of Cultural Heritage*, 15 (3), 318-325.
- Shliakhovchuk, E., Muñoz García, A., 2020. Intercultural Perspective on Impact of Video Games on Players: Insights from a Systematic Review of Recent Literature. In *Educational Sciences: Theory and Practice*. January (2020), 40-58.
- Styhre, A., Szczepanska, A. M., Remneland-Wikhamn, B., 2018. Consecrating Video Games as Cultural Artifacts: Intellectual Legitimation as a Source of Industry Renewal. In Scandinavian Journal of Management, 34 (2018), 22-28.