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To play, or not to play

Some problems of exhibiting digital games

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Over at least the last quarter of a century, one can observe a considerable interest in digital games on the part of museums and other exhibition institutions. Particular phenomena of this period are the large temporary and traveling exhibitions dedicated to games[1], as well as the inclusion of some of these games in collections of art museums[2].

However, as James Newman rightly pointed out: "The rapidly growing number of museums, archives and galleries turning their attentions to videogames reveals both the level of public and scholarly interest in the histories of design and play and, rather more worryingly, that we currently possess extremely limited methods for exhibiting, interpreting and accessing games and gameplay"[3]. Similar observations were also made by other researchers, e.g. Tiia Naskali, Jaakko Suominen, Petri Saarikoski stated that "there is no established tradition for designing game exhibitions, partly because of their novelty in a museum environment"[4]. Despite this, contemporary game exhibitions, as noted by these authors, very often look similar to each other, using a limited set of elements[5]. There are also opinions that museums in general are not prepared to collect and preserve games, due to their complex nature as artefacts born digital"[6] and effectuated as an activity[7]. As well as – being subject to rapid and inevitable damage over time[8].

The fundamental issue around which researchers' reflections on the display (in permanent or temporary exhibitions), preservation, and study[9] of games seem to revolve, even if not directly, is the ques-

1. The *Graveyard* game at the "Videogames: Design/Play/Disrupt" exhibition at the Victoria and Albert Museum, 2018–2019. Photo: MANYBITS, https://www.flickr.com/photos/manybits/39975649483/in/photostream (access date: 1.07.2022)

[1] Such as "GameOn" (2002) and "GameOn 2.0" (2010) organised by the Barbican Centre. The first travelling exhibition of video games was "Hot Circuits", organised back in 1989 at The American Museum of the Moving Image in New York and co-curated by Rochelle Slovin. Between 1990 and 1993, it was presented at 10 institutions across the USA. See e.g. **R. Slovin**, *Hot Circuits. Reflections on the first museum retrospective of the video arcade game*, 15 January 2009, http://www.movingimagesource.us/articles/hot-circuits-20090115 (access date: 19.06.2022) See also **G. Collins**, *An Archeological Hunt for "Old" Video Games*, "The New York Times", 19 June 1989, p. 11, https://www.nytimes.com/1989/06/19/arts/an-archeological-hunt-for-old-video-games.html (access date: 18.06.2022).

[2] One of the most famous such cases was the purchase by the Museum of Modern Art in New York of 14 titles, such as: *Tetris* (Aleksiej Pażytnow, 1984), *Sim City 2000* (Maxis, 1993), *Eve Online* (CCP Games, 2003), *Dwarf Fortress* (Tarn Ad-

ams, Zach Adams, 2006) and *Passage* (Jason Rohrer, 2007).

[3] **J. Newman**, *Saving (and Re-Saving) Videogames: Rethinking Emulation for Preservation, Exhibition and Interpretation*, "The International Journal of Creative Media Research" 2019, No. 1, https://www.creativemediaresearch.org/post/saving-and-re-saving-videogames (access date: 9.08.2022).

[4] **T. Naskali**, **J. Suominen**, **P. Saarikoski**, *The Introduction of Computer and Video Games in Museums – Experiences and Possibilities*, [in:] *Making the History of Computing Relevant – IFIP WG 9.7 International Conference, HC 2013, London, UK, June 17–18, 2013*, Ed. **A. Tatnall**, **T. Blyth**, **R. Johnson**, Berlin 2013, p. 234, https://hal.inria.fr/hal-01455255/document (access date: 9.08.2022).

[5] *Ibidem*, p. 234. These elements include old and new games, some of which are made available to play, controllers, artefacts connected with gaming such as magazines or gadgets, interviews with developers, video-recorded gameplays.

[6] **J. Barwick**, **J. Dearnley**, **A. Muir**, *Playing Games with Cultural Heritage: A Comparative Case Study Analysis of the Current Status of Digital Game Preservation*, "Games and Culture" 2011, No. 4, p. 377.

[7] See **N. Nylund**, *Walkthrough and Let's Play: Evaluating Preservation Methods for Digital Games*, [in:] *AcademicMindTrek'15: Proceedings of the 19th International Academic Mindtrek Conference*, Ed. **M. Turunen**, New York 2015, p. 55: "they are not merely things the way most preservation objects are, but rather something people do, an activity".

[8] See e.g. **D. Monnens [*et al.*]**, *Before It's Too Late: A Digital Game Preservation White Paper*, Ed. **H. Lowood**, "American Journal of Play" 2009, No. 2, https://digitalcommons.calpoly.edu/cgi/viewcontent.cgi?article=1118&context=lib_fac (access date: 25.09.2022).

[9] See e.g. **E. Aarseth**, *Playing Research: Methodological approaches to game analysis*, [in:] *Game Approaches / Spil-veje: Papers from spilforskning.dk Conference, August 28-29 2003*, Ed. **B. Kampmann Walther**, Melbourne 2003, https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.1048.415&rep=rep1&type=pdf (access date: 9.08.2022).

[10] **J. Newman**, *op. cit.*

[11] See e.g. **C. Fernández-Vara**, *Play's the Thing: A Framework to Study Videogames as Performance*, [in:] *DiGRA '09 – Proceedings of the 2009 DiGRA Internation-*

tion of whether or not they should be made available (and stored) in a playable form. In this respect, it is important to acknowledge Newman, who pointed out that, somehow *a priori*, it is considered most appropriate to strive to preserve and show games as playable[10].

However, this is by no means, contrary to what this researcher claims, some kind of "purist" demand, but a postulate stemming from an accepted perception of what digital games are. Just as much as the opposite position. Thus, it depends on whether we see games as "finite" software artefacts, the study of which may consist, for example, only in analysing their structure, operation (and the errors therein), design or content, or rather as "open" ones, which find their meaning and completion in the act of playing, or, to put it another way, as performances, which of course require a performer[11]. This alone shows that non-interactive contact with games deprives the audience of something. With all the obviousness of these observations, it should also be added that playing, as a pre-defined way of receiving games, makes this reception much deeper and more multifaceted than in the case of other media. For it engages not only the senses of sight and hearing, but also requires constant motor activity, which is a value in itself[12] as well as mental activity. The latter consists primarily of constantly interpreting and responding to what is happening in the game.

If "to play" then what to play, on what and for what purpose? If "not to play", then how to tell people interested in games, now and in the future, about games and gameplay. Already at probably the first exhibition at which an electronic game was presented, i.e. at the World Exposition in New York (1939–1940), a stand was taken in favour of making it available for play. That game was a nim game played on the Edward Condon-designed and created by Gerald L. Tawney and Willard A. Derr "Nimatron"[13]. At the time, the Nimatron was largely an exhibition curiosity, but one that aroused enormous interest, as up to a hundred thousand games were played on it, most of which were won by the Nimatron. It also heralded the future possibilities of calculating machines, for the demonstration of which beating a human in a logic game could have been an effective strategy.

For a similar purpose, a dozen years later, the 1951 Festival of Britain presented the "Nimrod" [Fig. 2] (also playing the nim game) developed by the British company Ferranti Ltd., which in the same year released its first computer, the Mark 1[14]. The brochure accompanying the "Nimrod" emphasised that since computers could be used even for such seemingly trivial purposes as a simple logic game, they could also be programmed to solve much more serious and complex problems[15]. So this machine and the game implemented on it were meant to familiarise people with computers, with the way they "think" and use them.

During the later exhibitions of digital games, efforts were constantly being made to make them available in a playable form,

despite the fact that, over the years and as the game industry has developed, this has become increasingly complicated, for a number of reasons. Above all because games, especially of the last 20 or 30 years, are becoming increasingly longer and more complex. As a result, a session of a few minutes or so spent playing a role-playing game that takes a dozen or more hours to complete, for example, may familiarise the visitor with the mechanics or control scheme used in the game, but will probably not give them much information about, for instance, its lore[16]. This is especially the case with titles such as, for example, *Dark Souls* (From Software, 2011), where players learn its elements gradually over the course of the game and have to put them together on their own. Thus, the player's experience will be very impoverished and also somewhat trivialised. It is for these reasons that not all games are suitable for playing in a museum setting at all – this is especially true of strategy games, MMOs (Massive Multiplayer Online), RPGs, those that require the player to solve intricate logic puzzles, and those that have a high entry threshold" (e.g. *Dwarf Fortress*, Tarn Adams, Zach Adams, 2006; or *Elite Dangerous*, Frontier Developments, 2014). In other words, those that require a lot of time, collaboration with other players, and a lot of mental effort.

Therefore, the best answer to the question "what to play" at the exhibition would probably have to be: games that are relatively short, enough for the visitor to be able to see the final or stage (as in platform games) effect of their actions on the screen, selected fragments of longer titles – especially the opening "tutorial" stages that introduce both a story of the game and how it works. And also old games to which access for the average gamer is limited or impossible. Good "material" to be made available as playable can also be titles presenting a non-standard approach to gameplay and objectives, such as *The Graveyard* (Tale of Tales, 2008) [Fig. 1], using an unusual control scheme or controllers (such as, for example, the Fishing Controller for the Sega Dreamcast Console, 1999)[17]. Thus, game playing is desirable wherever the direct experience of it is crucial to understanding the operation of the game presented, and where the information provided by this experience itself, or with some help from additional material, makes it possible to become familiar with this game.

However, when advocating the presentation of playable versions of games, thought should be given to the context in which they are to be set. For perhaps it is not necessary for all the themes around which games exhibitions are focused. It is certainly an appropriate strategy, for example in an exhibition dedicated to gamers themselves and the culture they create. The game-playing public can become one of the "actors" of the exhibition, finding themselves well in it. It seems similarly justified in the case of historical exhibitions conceptualising the development of games, or a selected element of them. Especially hardware, but also, for example, control concepts or the evolution of mechanics. Monographic exhibitions on a specific title or game

al Conference: Breaking New Ground: Innovation in Games, Play, Practice and Theory, London, UK, September 1–4, 2009, Ed. **T. Krzywinska**, **H. W. Kennedy**, **B. Atkins**, London 2009, http://www.digra.org/digital-library/publications/plays-the-thing-a-framework-to-study-videogames-as-performance (access date: 11.08.2022); **D. Homan**, **S. Homan**, *The Interactive Theater of Video Games: Gamer as Playwright, Director, and Actor*, "Comparative Drama" 2014, No. 1/2.

[12] See **M. Swalwell**, *Movement and Kinaesthetic Responsiveness*, paper presented at the "Console-ing Passions Conference", and International Conference on Television, Video, Audio, New Media and Feminism, Adelaide, 21–23 July 2011, p. 1, https://www.academia.edu/803854/Movement_and_Kinaesthetic_Responsiveness (access date: 12.08.2022): "Some of the most enjoyable bodily pleasures of gaming result from the felt sensations of movement in games – improvisation, freedom, becomings. Moments of kinaesthetic responsiveness evidence both the closeness and the liveliness of gamers' aesthetic engagements with computing technology".

[13] See **K. Wood**, *Display Mode: Exhibiting Video Games as Art, History*, "New Art Examiner" 2019, No. 2, p. 7.

[14] See *ibidem*.

[15] See **Ferranti**, *Faster than Thought. The Ferranti Nimrod Digital Computer*, http://www.goodeveca.net/nimrod/NIMG_1.html#game_theory (access date: 18.06.2022).

[16] On the subject of game lore see e.g. **R. Kochanowicz**, *Game lore – dodatek, podstawa i "granica" supersystemów*, "Literatura i Kultura Popularna" Vol. 25 (2019).

[17] It was used for fishing games such as *Sega Bass Fishing* (1 and 2), and could also be used for the games *Virtua Tennis* and *SoulCalibur*.

series also seem to be an appropriate place for it. An example would be the exhibition "Spacewar! Video Games Blast Off" organised by the Museum of the Moving Image in New York in late 2012 and early 2013. It was dedicated to a presentation of the title game itself, and the ways in which it shaped the further development of digital games and gaming. It presented 20 playable titles from a variety of platforms (e.g. *Space Invaders*, Taito, 1978; *Metroid II: Return of Samus*, Nintendo, 1991; *Portal*, Valve, 2007), including, of course, the very *Spacewar!* (Steve Russell *et al.*, 1961) played on a replica PDP-1 computer[18].

Exhibitions in which it does not seem necessary to make playable games available include, above all, those that demonstrate elements of games that are not dependent on the player's actions, or those for the perception of which playing is not essential. That is to say, for example, those showing developers and the process of creating games, the development of their graphics or sound sphere[19]. In practice, however, the situation is different, as exemplified by "Game Masters: The Exhibition"[20] (2012) [Fig. 3] prepared by the Australian Centre for the Moving Image, where the focus was supposed to be primarily on game developers. However, in addition to items such as concept graphics, storyboards and interviews with developers, the curators decided to include around 100 playable games. The same occurred in the Polish exhibition "Digital Dreamers" (2016) dedicated to home-grown game developers, originally shown at the NOT Museum of Technology located in the Palace of Culture & Science in Warsaw. It too included 26 playable titles alongside various artefacts (boards and videos)[21].

The postulate formulated above of making old games available to play introduces the problem of what hardware should be used for this purpose: original hardware, e.g. arcade machines of old consoles and computers such as the Atari VCS [2600] (Atari, 1977) or the Commodore 64 (Commodore Business Machines, 1982), or modern hardware on which these games would be emulated, or perhaps something else. For the use of the original equipment inevitably entails its physical destruction. The example cited by Patrick Prax, Lina Eklund and Björn Sjöblom, of the "GameOn 2.0" exhibition, where such a model was adopted, is telling in this aspect. However, as the old devices were eventually broken, they were constantly being replaced by new ones, without the public being informed. Thus – the exhibition contributed to the irreversible depletion of the gaming heritage it presented[22]. Doubtless other similar, especially travelling, expositions have faced identical problems.

Yet old hardware and media also deteriorate as a result of natural degradation processes, such as the degaussing of floppy disks. Therefore, in order to make the display and storage of games independent of it, emulation is proposed. Finding application in these two fields, it can also be used as a tool for game research. This is because em-

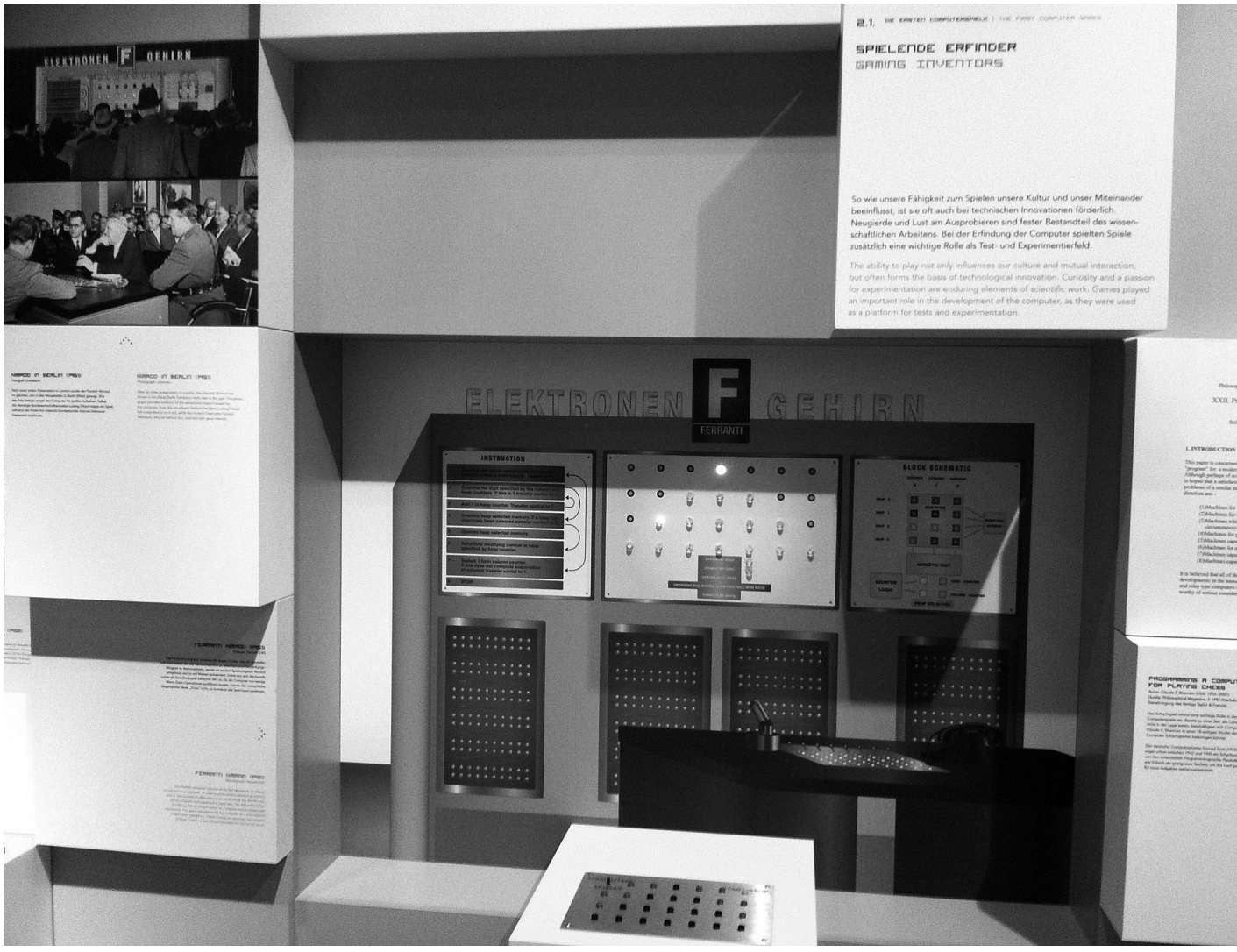
[18] See e.g. **J. Sharp**, *The Making of "Spacewar! Video Games Blast Off"*, https://www.gamedeveloper.com/disciplines/the-making-of-spacewar-video-games-blast-off- (access date: 11.08.2022); *Exhibition "Spacewar! Video Games Blast Off"*, http://aws.reverseshot.com/exhibitions/2012/12/15/detail/spacewar-video-games-blast-off (access date: 11.08.2022).

[19] An example of such a presentation, available, however, only online, is the "Composing Classics: A History of Video Game Music" created by The Strong National Museum of Play. See *Composing Classics: A History of Video Game Music*, https://artsandculture.google.com/story/yQVh0uNkq_X8IQ (access date: 11.08.2022).

[20] It was a travelling exhibition, shown until 2020 in 11 institutions, including Australia, the USA and Sweden and Germany. See *Game Masters*, https://www.acmi.net.au/about/touring-exhibitions/game-masters-touring (access date: 11.08.2022).

[21] See e.g. **M. Dobrołowicz**, *Znasz polskie gry komputerowe? Ruszyła wystawa "Digital Dreamers"*, 26 January 2016, https://www.rmf24.pl/ciekawostki/news-znasz-polskie-gry-komputerowe-ruszyla-wystawa-digital-dreame,nId,2022561#crp_state=1 (access date: 11.08.2022). The exhibition was primarily intended for presentations abroad and was shown at the 14th International Knowledge, Education and Career Fair "STUDIJOS 2016" in Vilnius or at the China Digital Entertainment Expo and Conference ("ChinaJoy") Shanghai (2017), as well as in the USA. See **A. M. Ozimek**, *Construction and Negotiation of Entrepreneurial Subjectivities in the Polish Video Games Industry*, [in:] *Game Production Studies*, Ed. **O. Sotamaa**, **J. Švelch**, Amsterdam 2021, p. 262, https://www.degruyter.com/document/doi/10.1515/9789048551736-015/html (access date: 25.09.2022).

[22] See **P. Prax**, **L. Eklund**, **B. Sjöblom**, *"More like an arcade" – The imitations of playable games in museum exhibitions*, "Museum & Society" 2019, No. 3, p. 445.



2. The "Nimrod" computer exhibited at the Computerspielemuseum in Berlin. Photo: Chuck Smith, 2011, https://en.wikipedia.org/wiki/Nimrod_(computer)#/media/File:Nimrod_in_Computerspielemuseum.jpg (access date: 15.08.2022)

ulators "add" affordances to games that are (usually) unavailable in their original versions, such as the ability to save game status at any time, rewind or fast-forward, or record gameplay, which from a research point of view is a very big advantage.

Given the key role currently attributed to emulation for the preservation and presentation of video games, it is important to take a slightly closer look at it. This is because, at least in the present state of technological and legislative development, it has undeniable drawbacks and limitations apart from its advantages. First and foremost, the emulation process itself does not always produce good

3. The "Game Masters: The Exhibition" exhibition at the Australian Centre for the Moving Image, 2012. Photo: M. Ashkanasy, https://www.flickr.com/photos/acmi/8022357663/in/photostream (access date: 15.08.2022)

results. Mark Guttenbrunner, Christoph Becker and Andreas Rauber, examining various types of emulator, concluded that although it is a good way to interpret old game software on modern computers, it does not always prove successful: "Even the popular systems of the first four generations [of consoles – E. K.] are not perfectly emulated today. The more recent the system, the lower the degree of accuracy"[23]. The tool is also problematic when seeking to replicate the functioning of the original controllers and their relation to the displays. Simon Dor pointed to the following examples: in the arcade version of the game *Arkanoid* (Taito, 1986), players used a spinner (a ball knob) for control. Although the developers of MAME (Multiple Arcade Machine Emulator) constructed a replica of this device, it did not, however, achieve the precision of the original. An even more

[23] **M. Guttenbrunner**, **C. Becker**, **A. Rauber**, *Keeping the Game Alive: Evaluating Strategies for the Preservation of Console Video Games*, "International Journal of Digital Curation" 2010, No. 1, p. 86, http://www.ijdc.net/article/view/147/209 (access date: 25.09.2022).

evident example is the NES Zapper used to play, for example, *Duck Hunt* (Nintendo, 1984), which works on the principle of coupling of light from the screen, but only in combination with a CRT TV set[24]. The technical problems with emulators highlighted here, which may well be resolved in the future, lead us to view them now primarily as tools for amateur playing of "retro" games. They do, however, complicate the question of their usefulness, at least to some extent, for research purposes as well as for exhibitions and museums.

No less important are the legal issues repeatedly raised[25]. For emulation violates the copyright and property rights of game developers and publishers, as well as hardware manufacturers, and thus – at least until it becomes legally sanctioned (for the purposes of heritage institutions) – its use raises ethical and legal questions. In both of these aspects such institutions should be as transparent as possible.

Another problematic aspect of emulation should not be overlooked either. "The material" of the old games that run on today's computers is, after all, with all the obviousness of that statement, programming code that is interpreted by the relevant devices and is compatible with certain operating systems. Thus, it is created precisely with them, their limitations and their capabilities in mind. Running it on other devices or in a different development environment in practice almost renders meaningless the efforts of game developers to make the best use of the originally available hardware and systems. Efforts which, after all fuelled their creativity. It is not insignificant. The creator of *Super Mario Bros.* (Nintendo, 1985) Shigeru Miyamoto commented on the "revamped" version of his game as follows:

> When I see this [*Super Mario Bros.* – E. K.] so clearly, its a little embarrassing. Back then, with tube televisions, it was a little blurrier and the images weren't quite so sharp. The places where we tried to fudge it a bit really stand out![26]

Finally, the emulation of games generates problems very similar to those of digitisation. Of course, video games are by their very nature "digital", but this is not the aspect at issue here, but rather, on the one hand, the ease of virtually any manipulation of a given artefact provided by the digitalisation of various media (e.g. music or photography), and on the other, its decontextualisation and re-contextualisation. In this context, Tomasz Gnat recalled the words of Jeremy Wade Morris, who wrote:

> digitisation is changing the material aspect of music. […] digital formats strip recorded music of context and content, removing the packaging, the materiality, the "objectness" that makes up its status as a commodity. […] Without something to hold in their hands, consumers make a different assessment of a product's value[27].

[24] See **S. Dor**, *Emulation*, [in:] *The Routledge Companion to Video Game Studies*, Ed. **M. J. P. Wolf**, **B. Perron**, New York 2014, p. 26.

[25] See e.g. **V. Zainzinger**, *Saving the game: Why preserving video games is illegal*, https://thenextweb.com/news/saving-the-game-why-preserving-video-games-is-illegal(accessdate:15.08.2022); **T. Gnat**, *Kanon – ideologia i mechanika. Problematyka kanonu w rozrywce interaktywnej*, "Er(r)go" 2017, No. 2, p. 65.

[26] As quoted in: **J. Newman**, *(Not) Playing Games: Player-Produced Walkthroughs as Archival Documents of Digital Gameplay*, "The International Journal of Digital Curation" 2011, No. 2, p. 114, http://www.ijdc.net/article/view/186/266 (access date: 25.09.2022).

[27] **T. Gnat**, *op. cit.*, p. 59.

It seems that these observations can also be applied to video games that have been "freed" by emulation from their original hardware and all the interconnections it entangles them in. Of course, in order for games to function in museums or other exhibition institutions, they must always be subject to at least some degree of re/decontextualisation, but their hardware is an inseparable part of them. So these processes must take it into account.

For gaming platforms are more than just types of hardware for which games are produced or ported. As Thomas Apperley and Jussi Parikka emphasised: "Platforms, then, are not just technologies but techniques that sustain interactions as well as offer an epistemological framework". Moreover, they are closely linked to the processes of factory production, sales and marketing to different audiences and markets, and contribute to "a wide range of social habits, assemblages, and cultural techniques"[28]. The latter observation corresponds, for example, to the almost "tribal" disputes of users of today's two most popular consoles, PlayStation and Xbox, among themselves and with PC gamers over which of these platforms and the affordances they offer is superior to the other.

However, does adopting as a (primarily) exhibition strategy for digital games presenting them on hardware like that for which they originally were released necessarily mean using the original devices and media? In the context of the above, this question would have to be answered in the affirmative. However, the realisation that this risks damaging them irretrievably prompts the search for other, compromise solutions. Perhaps one of these would be to make exact copies of old devices and games, also using old components as far as possible. This would certainly require the cooperation of the manufacturers of such equipment, which unfortunately would not be available in all cases. It would also require appropriate regulations to protect the rights of both the creators and producers of games and hardware, as well as the museum and exhibition institutions themselves.

The use of such replicas could be a way of providing museum audiences with an "integral experience" in their contact with games. I put this notion somewhat in contrast to the rather explicitly nostalgia-tinged demand to provide them with an "original experience", i.e. one that was associated with the "original" contact with games, especially the oldest ones, dating back to the arcade machine era. The idea of the "original experience" is based on an insistence on recreating the emotional feeling of "what it used to be like" to play games on old devices[29], which is impossible to achieve. Moreover, it is not entirely certain that the nostalgia felt by retro-gamers can be evoked by retro hardware[30].

The contemporary receiver, who often has a very long experience of playing modern games and is also endowed with a rich gaming imaginarium, cannot "feel" how games were perceived by gamers who witnessed the emergence of the games industry as such,

[28] **T. Apperley**, **J. Parikka**, *Platform Studies' Episthemic Threshold*, "Games and Culture" 2018, No. 4, p. 353.

[29] **M. Swalwell**, *Moving on from the Original Experience: Games history, preservation and presentation*, [in:] *DiGRA '13 – Proceedings of the 2013 DiGRA International Conference: DeFragging Game Studies, Atlanta, GA, USA, August 26–29, 2013*, Ed. **C. Pearce**, **J. Sharp**, **H. W. Kennedy**, Atlanta 2013, p. 3, http://www.digra.org/wp-content/uploads/digital-library/paper_454.pdf (access date: 12.08.2022).

[30] See e.g. **T. Wulf [*et al.*]**, *Video Games as Time Machines: Video Game Nostalgia and the Success of Retro Gaming*, "Media and Communication" 2018, No. 2, p. 63.

without having any previous expectations or practice associated with it. It can, however, experience the very act of playing with the "same" controllers and displays. Their use, therefore, would bring gaming exhibitions closer to, for example, exhibitions of reconstructed monuments of technology. The use of replicas of games and gaming equipment would require that viewers be provided with information about the originals and their multifaceted context.

Returning to the issue of whether or not games should be made available in a playable form in exhibitions, which is the starting point for my deliberations, it should be noted that the former approach may discourage a part of the potential audience that does not know how to or cannot play them, i.e. does not know how to use the controllers, does not understand their connection with the action taking place on screen, is not able, for example due to their physical limitations, to react quickly enough to the challenges posed by the game, and finally – is not able to "feel" the game. The field of digital games will therefore remain closed to such people, yet contact with these games, as elements co-creating contemporary culture, especially visual culture, may explain many of its phenomena, and may also remove from them, probably still weighing down on them, the odium of frivolous, "childish" entertainment or a dangerous medium teaching violence. Finally, viewers should not be "forced" to play as the only way of receiving the games shown in the exhibition, just as they should not, for example, be forced to partake in the creation of a "participatory" work of art[31]. Playing, moreover, is usually considered a voluntary activity.

Gameplay has another limitation – it will not (easily) reveal all the ins and outs of a game to every player, so it is not a guarantee to get the full experience of it. After all, if we consider it as a goal of gameplay. Not all players finish the titles they have started, a very large proportion of them, if they can, skip the cinematic interludes or side quests, some also skip the more difficult missions (such a possibility is, for example, in *Grand Theft Auto V*, Rockstar Games, 2013). They themselves, therefore, do not prioritise it.

If we are not in favour of making digital games available (and also storing them) in playable form, what can be proposed instead. One option is to create tools for the "deconstruction" or "reverse engineering" of games in front of the audience. An interesting proposition moving in this direction was developed at the National Videogame Arcade in Nottingham[32] by a curatorial team that included James Newman. This was the so-called Game Inspector (GI), a kind of interactive "map" that allowed fairly free movement through the game, on which markers containing text and video sequences were placed in various places, revealing various game secrets, such as hidden levels, passages, exploits or program bugs causing unexpected phenomena. In the case of *Super Mario Bros.*, discussed more extensively by the researcher in this context, such a thing is the so-called

[31] See e.g. **E. M. Reed**, *Arcades, Let's Plays, and Avant-Gardes: perspectives for analysing and developing videogame exhibitions for arts audiences*, PhD thesis written under supervision of Dr. W. Huber, School of Arts, Media and Games, Abertay University 2019, p. 108, https://rke.abertay.ac.uk/ws/portalfiles/portal/24347818/Reed_Arcades_Lets_Play_PhD_2019.pdf (access date: 14.08.2022).

[32] This institution now operates in Sheffield under the name The National Videogame Museum.

Minus World, only discovered in 1988[33]. Thanks to Game Inspector, games are becoming almost completely transparent, and those of their affordances and curiosities, which were originally uncovered only by a subset of players through luck or their above-average skills, have become easily accessible to all regardless of their competence as game players (or non-game players)[34]. The NVA curators, however, were not concerned with "disenchanting" games, but with developing a set of interpretive tools to understand them more fully[35]. And to have their examination "freed" from the need to keep them alive, while having a much broader spectrum of possibilities that the use of video footage of various gameplays offered.

Newman, in the cited article, described the use of Game Inspector for the presentation of the two-dimensional platform games *Super Mario Bros.* and *Sonic the Hedgehog* (Sega, 1991). And it seems that it is precisely for titles of this kind that it is most suitable due to their structure and linearity. Such a presentation could be complemented by a parallel showing of the source code responsible for various elements (e.g. sprites) and game mechanics. Annotated, of course, with explanations of how this code was executed by the original assembler. For more complex three-dimensional games, the GI came close in the way it conveyed information to movies with director's commentary, with the difference, however, that the portions of gameplay captured on video could be paused, rewound and zoomed in[36].

In the same text, Newman pointed out the usefulness (for research purposes) of the tools used by gamers who hack games, such as camera freeing[37] or so-called "noclipping"[38] allowing unrestricted navigation of the game map and viewing it as it was seen by the developers working on it, to which, of course, players do not usually have access. This way of deconstructing games is very popular among, for example, gaming YouTubers[39] as a tool for revealing the secrets of their design (including various optimisation tricks) and the internal logic controlling them (e.g. of scripted sequences) and certainly carries a great deal of cognitive value, so it seems to be useful for exhibition presentations as well. Perhaps, at least to some extent, a more brutal way of "testing" games would also be useful, which is to deliberately make them crash and glitch by pushing their mechanics and logic to extremes[40]. A rather similar, though not as aggressive, analytical tactic was employed by Harun Farocki in *Parallel IV* (2014), where, on the example of several games, including *Red Dead Redemption* (Rockstar Games, 2010) and *Mafia 2* (2K Czech, 2010), he used the possibilities provided by the game for "bodily" contact between the player's avatar and NPCs to reveal their entrapment in scripted reaction sequences. Such actions, of course, break up the immersiveness of the games by revealing the algorithms driving them.

The aforementioned strategies of showing games without making them available to play at least in part require the use of gameplay videos. Which leads to the next issue of presenting gameplay videos at

[33] **J. Newman**, *The Game Inspector: a case study in gameplay preservation*, "Kinephanos" 2018, Special Issue, p. 131, https://www.kinephanos.ca/Revue_files/2018_Newman%20EN.pdf (access date: 25.09.2022).

[34] See *ibidem*, p. 138.

[35] *Ibidem*, p. 124.

[36] See *ibidem*, pp. 141–142.

[37] There are several types of camera view in games: first-person, third-person, isometric, top and side views (the last two are used in 2D games). A freed camera can move in any chosen way.

[38] Cheat to disable collision detection in the game, making it possible to penetrate the surfaces of various objects and therefore move freely around the game map.

[39] **J. Newman** (*The Game Inspector…*, p. 144) cited as an example of such a creator the YouTuber Shesez, who analyses mainly Nintendo games (e.g. the *Zelda* series). As another example, we can also mention the author of the channel Zullie the Witch (https://www.youtube.com/c/ZullietheWitch [access date: 25.09.2022]), who specialises in games by FromSoftware studios, such as *Dark Souls* (successive parts came out in 2011, 2014 and 2016), *Bloodborne* (2015) or *Elden Ring* (2022). Also very interesting is the Noclip.website which offers a "developer's" insight (by using exactly noclipping) into the maps of dozens of games, from Nintendo classics like the *Mario* series to *GTA San Andreas* (Rockstar Games, 2004) or *Team Fortress 2* (Valve Corporation, 2007).

[40] There are a very large number of YouTube game player channels creating videos using game exploits in this way. Among the most popular is Let's Game It Out (https://www.youtube.com/c/LetsGameItOut [access date: 25.09.2022]).

exhibitions. Newman did not reveal who recorded them for Game Inspector, or – where they were taken from. And it is precisely the issue of how to source and, above all, who can or should make such "model" game walkthroughs for museum purposes that is crucial in such a case. After all, players are diverse[41], and so are the ways in which they play, often unforeseen and unwanted by designers. Newman put it as follows:

> there is no singular videogame "play". Rather, games are subjected to and support a series of possible "playings" – or perhaps "(re)playings" that are expert, inexpert, self-consciously exploratory, resistant, intended for demonstration, broadcast, competitive success, financial gain…[42]

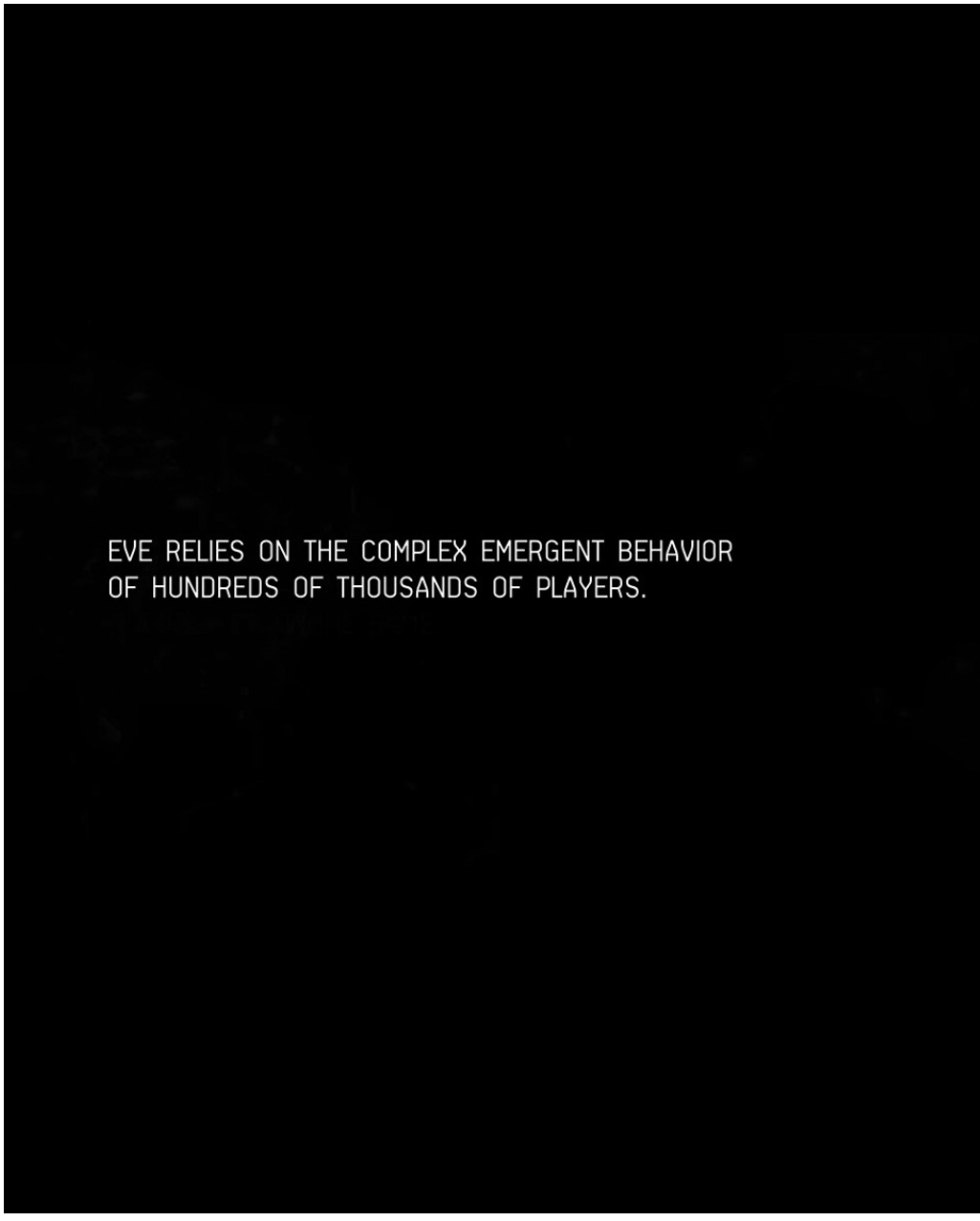
Should a museum or exhibition institution decide to acquire video-recorded games from external sources, the richest repositories of these are online services such as YouTube (2005–) or Twitch (2011–). However, the vast amount of content available on them would not make the choice any easier[43]. It is also difficult to define the criteria. The question is whether to go for the most popular channels or to diversify the range of video authors, e.g. by selecting videos by very popular but also niche authors[44]. There are several types of gameplay posted on these sites, the most popular being "walkthrough" (or "gamethrough"), "Let's Play" and "speedrun", which differ primarily in their objectives, although the demarcation between at least the first two is not entirely definable. Simplifying the issue: a walkthrough is basically supposed to show "how to play" a given game, and can be associated with very popular a few, or a dozen years ago (and still functioning today) text tutorials showing ways to "optimally" play a given title. "Let's Play" usually has a primarily entertaining function, but its source, and at the same time the most important aspect of "Let's Play", is not only the game played by its author, but also to a very large extent their comments on the action on screen, their moves and the results they achieve. Speedrun, on the other hand, is a gameplay aimed at passing the game as quickly as possible. It is a demonstration of virtuosity in mastering all aspects of a title's mechanics, and often a merciless exploitation of existing exploits in the title, such as rocket jumping in *Quake* (id Software, 1996) or wall sliding in *Doom* (id Software, 1993). Speedruns contain a very strong competitive aspect, the breaking of a game's passing record by some player encouraging others to make their own attempts. All of these types of video-captured gameplay could find museum-exhibition uses depending on the context in which they were to be placed, not least relating to games and gaming themselves. Taking "Let's Plays" as an example, as they are primarily focused on the player, as most often not only the gameplay is recorded on video, but also the player's character, their reactions, the associations they have with various elements of the game (e.g. relating to other games or, for ex-

[41] **E. Aarseth** (*op. cit.*, p. 3–4) distinguished, following Richard Bartle, four groups of players: "socialisers", "killers", "achievers" and "explorers", adding a fifth group – "cheaters".

[42] **J. Newman**, *The Game Inspector…*, p. 127.

[43] In July 2022 alone, there were 8,042,796 active streamers on Twitch, while the total time streamed was 30,103,488 hours. Data from: https://twitchtracker.com/statistics/active-streamers; https://twitchtracker.com/statistics/stream-time (access date: 14.08.2022).

[44] This was the tactic taken by **N. Nylund** (*op. cit.*, pp. 57–60) when analysing "Let's Plays" of the game *Alan Wake* (Remedy Entertainment, 2010) made by 3 Finnish YouTubers differing both in playing style and popularity.



4. The *Eve Online* game at the "Applied Design" exhibition at the MoMA, 2013–2014. Screenshot from: https://www.youtube.com/watch?v=EGuDUbZIo_o (access date: 1.07.2022)

ample, movies, etc.) contextualising their play, they can be used both to document for research purposes and to present in exhibitions of contemporary visual culture.

Recordings of games, like the emulation discussed earlier, are also fraught with copyright issues[45]. For they cannot be considered as use of games under the right of quotation if they show (even if in episodes) the entire game, under one condition, however – if they are not classified as artistic performances of works[46], and thus as the result of creative work[47]. In other words, whether various types of gameplay

[45] In the perspective of Polish law, this topic has been addressed, for example, by **E. Fabian** (*Wiedźmin III: Gra komputerowa a prawo autorskie*, https://lookreatywni.pl/baza-wiedzy/gra-komputerowa-a-prawo-autorskie-wiedzmin [access date: 15.08.2022]), or **M. Balicki** (*Let's play, czyli zagrajmy w prawo autorskie*, 22 maja 2016, 1 czerwca 2015, https://lookreatywni.pl/baza-wiedzy/lets-play-a-prawo-autorskie-gry [access date: 15.08.2022]), and **W. Piwowarczyk** (*Materiały let's play z gier wideo naruszają prawa autorskie? Co wolno pokazywać w sieci?*, 7 maja 2021, https://technika.dlastudenta.pl/artykul/materialy-let-s-play-z-gier-wideo-narusza-ja-prawa-autorskie-co-wolno-pokazywac-w-sieci,141153.html [access date: 15.08.2022]).

recordings infringe copyright depends on the way in which a digital game is understood, whether (as I wrote at the beginning of the text) as a completed or closed artefact, or as an open one that "happens" only at the moment of play, making the player, as it were, its co-author[48]. This point, moreover, highlights the need to undertake (for which there is no room here) an exploration of the very broad field of what might be termed the "performance" (or "interpretation") of games, whose issues are perhaps largely analogous to those of music performance (interpretation)[49].

[46] See e.g. **K. Mackiewicz-Ball**, *Chopin pod ochroną. Prawo autorskie o muzyce dawnej i ludowej*, 4 marca 2022, https://legalnakultura.pl/pl/prawo-w-kulturze/prawo-w-praktyce/news/2831,muzyka-dawna-i-muzyka-ludowa-w-swietle-prawa-autorskiego (access date: 15.08.2022).

[47] In view of the US law, this issue has been analysed, for example, in: **K. Coogan**, *Let's Play: A Walkthrough of Quarter-Century-Old Copyright Precedent as Applied to Modern Video Games*, "Fordham Intellectual Property, Media & Entertainment Law Journal" 2018, No. 2, pp. 400 ff, https://ir.lawnet.fordham.edu/cgi/viewcontent.cgi?article=1692&context=iplj (access date: 25.09.2022).

[48] **A. R. Galloway** (*Gaming: Essays on Algorithmic Culture*, Minneapolis-London 2006, p. 2) put it this way: "Without the active participation of players and machines, video games exist only as static computer code. Video games come into being when the machine is powered up and the software is executed; they exist when enacted. […] With video games, the work itself is material action. One plays a game. And the software runs. The operator and the machine play the video game together, step by step, move by move. Here the 'work' is not as solid or integral as in other media".

[49] Precision of thought and research would, by the way, also make it necessary to distinguish games whose gameplay is more akin to the performance of sports competitors – I am thinking in particular of highly competitive games that now have e-sports status, such as *Counter Strike* or *League of Legends*.

Leaving these considerations aside, an interesting attempt to solve the problem of obtaining (various) video recordings of gameplay for exhibition purposes was made by the Museum of Modern Art in New York on the occasion of the organisation of the exhibition "Applied Design", which presented a dozen or so games acquired for the museum's collection. One of these was *Eve Online* [Fig. 4] (CCP Games, 2003) a network multiplayer game set in the fictional universe of New Eden. Through the producer of this title, a community of players was asked to record fragments of their gameplay on 9 December 2012[50], which were then integrated into a several-minute film shown at the exhibition. They were, however, only a few seconds or so long and constituted only a kind of mosaic background to the main message that was contained in the animated infographics describing *Eve*, being also part of the video[51]. Without them, this video collage would have been visually very attractive, but it would have conveyed virtually no knowledge of the game, which is perhaps a weakness of the idea. Nevertheless – perhaps it is by inviting players to share recordings of their gameplay that can be a good way to gather a large number of different gameplays showing different playing styles and skill levels.

However, it is possible that, as James Newman stated, games are "really bad at telling their stories"[52]. What is needed, therefore, is to embed them in exhibitions surrounded by other, primarily non-multimedia artefacts related to the process of their production, consumption and criticism, creating a context for their "story", whether it will unfold before the visitor through self-gaming or through the use of tools and strategies such as those mentioned above. Each time, depending on the point of view from which an exhibition would explain games and gaming, or – what larger narrative whole they would become part of, this set of surrounding artefacts would of course vary. It may also be that certain contexts in which we would want to tell stories about them would not require showing games as such at all. The spectrum of "stories" in which games can be set is very broad, extending from the history of computers, graphics and animation, through the development of leisure culture and multimedia entertainment, the development of new media, and on through the manifold connections with art, to issues relating to the global economy and the circulation of goods and money, the shaping of politics, historical and identity narratives, or finally, returning to games themselves – the problem of contemporary work.

Among the contexts thus outlined, of which many more could of course be mentioned, the most interesting seem to be those that would show the harder and darker side of games, such as precisely their role in the global economy – it is estimated that in 2022 this industry will be worth $220 billion[53], or the problem of the work behind those games. Setting games, gamers and gaming in those frames, also in an exhibition context, would allow important questions to be

[50] See press release issued by the MoMA: *Applied Design*, https://www.moma.org/documents/moma_press-release_38-6891.pdf?_ga=2.223399256.278791685.1656168310-1625612790.1656168309 (access date: 25.04.2022).

[51] It is available on YouTube: https://www.youtube.com/watch?v=EGuDUbZIo_o (access date: 25.04.2022).

[52] As quoted in: **J. Barwick**, **J. A. Dearnley**, **A. Muir**, *op. cit.*, p. 384.

[53] See **J. Rousseau**, *Video game market revenue forecasted to hit $200bn for 2022*, 5 May 2022, https://www.gamesindustry.biz/video-game-market-revenue-forecasted-to-hit-usd200bn-for-2022 (access date: 15.08.2022).

raised, including those to the exhibition and museum institutions themselves, about what role they play in these processes. Although this is a topic that requires a separate study, at least one possible answer might be signalled here.

The focus of an exhibition on games themselves, whether in playable form or not, hides a very large part of what they really are, obscures more than it shows. To put it more precisely, following Emilie M. Reed, such exhibitions present them as mere products of creative thought, not actually work[54]. Apart from the games themselves, the narrative of creation is supported, for example, by the concept graphics, sketches, notes, level prototypes, test videos, etc. that are readily shown in the exhibitions, or by transcripts (e.g. video) of interviews with the creators. It is no coincidence, however, that the video games sector is referred to as an industry. It employs hundreds of thousands of people in the development studios themselves, but also in factories spread across the world that produce components or finished hardware. The darker side of the industry manifests itself, for example, in the increasingly frequent reports of crunching (prolonged working overtime) in the final phases of game production, or wherever (as in the case of emulation or the online dissemination of recordings of games of various types) there is a risk of financial loss for producers. Museum and exhibition institutions seem to be the right place to unveil this often silent reality, however, as Reed aptly pointed out – for them the narrative of games as merely products of creation rather than work is also the most convenient[55]. This is perhaps why they so readily advocate the use of emulation as a tool for protecting and exhibiting games, removing their entire material context from view, or – as in the case of, for example, the MoMa and the motivation presented by its curator Paola Antonelli for including games in this museum's collection – seeing them as mere works of design, or through the prism of "interaction design"[56].

Returning, then, to the opening remarks of this text regarding the failure of museums etc. currently to have adequate practices for exhibiting and storing digital games, it seems that these problems are primarily due to a rather superficial consideration of the nature of games so far, at least within a museum framework, avoiding its problematic sides. And also – and this was the main focus of my text – from an arguably insufficiently thorough consideration of questions about what the exhibition of games is supposed to convey to the viewer and what are the best strategies to do so.

[54] **E. M. Reed**, *op. cit.*, p. 107.

[55] *Ibidem*.

[56] **P. Antonelli**, *Why I brought Pac-Man to MoMA*, https://www.ted.com/talks/paola_antonelli_why_i_brought_pac_man_to_moma (access date: 25.06.2022).

Słowa kluczowe
gry wideo, muzeum, wystawy, nowe media, wystawiennictwo

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Summary

EMILIA KIECKO (University of Wroclaw) / To play, or not to play. Some problems of exhibiting digital games

Video games have been present in museum and exhibition institutions already for several decades. However, adequate ways of exhibiting them still do not seem to have been proposed. This article addresses the issue of whether and in what context it is worthwhile to exhibit games in playable form and what some alternative (non-interactive) ways of presenting them might be.