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HEROES, HELPERS, AND VILLAINS: REPRESENTATIONS OF THE CARNATION REVOLUTION THROUGH CULTURAL GAME JAM OUTPUTS

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Abstract

The present article aims to analyse the content of nine game prototypes produced in the Óbidos Cultural Game Jam, organized in the context of EPIC-WE, a European project dedicated to game-making through a cultural lens. The research focus was on its representation of the Carnation Revolution, an historical event that led to the implementation of democracy in Portugal. After a first evaluation using a questionnaire, we used textual analysis to divide games into three narrative categories, based primarily on the protagonist's role and depiction of revolutionary action. Games under the "hero" category attributed maximum importance to the protagonist as a revolutionary agent, "helpers" focused on small tasks that contributed to the revolution as a whole, and "villains" opted for thrusting the player into oppressive roles as a way to critique the dictatorship.

KEYWORDS: game analysis; political revolution; protagonist; cultural game jam; textual analysis

Introduction

As the 21st century progresses, the interest in video games as storytelling and sense-making media artifacts continues to grow. From its influence on culture (Muriel & Crawford, 2018), to possible uses for educational purposes (Martinez et al, 2022; Camuñas-García et al, 2024), video games play a key role in visual and media culture in coding and establishing norms, narratives and other cultural signifiers. This is where game analysis comes into play. Analysing a game's content can be a potential gateway into a deeper understanding of society and its cultural zeitgeist, clueing us in on how exactly they produce such meaning (Fernández-Vara, 2019).

Games are often an elusive object to study. Their complex structure as audiovisual interactive software provides a plurality of perspectives and ways that it can be analysed, as opposed to other media with a more straight-forward mode of analysis (Wulf et al, 2023). Games have different goals, too. The emergence of the "serious games" category in literature separates the commercial aspect of the industry from games with a more informative or educational purpose (Laamarti et al, 2014). The present article analyses the games produced as part of a cultural game jam, a specific game jam model that aims to produce games for culture and through culture, with the goal of empowering European youth and providing a new way for them to engage with cultural heritage. This game jam was organized within the context of EPIC-WE (Empowered Participation through Ideating Cultural Worlds and Environments), a Horizon Europe-funded research and innovation project designed to empower

young people as both consumers and producers of European cultural values, through collaborative game-making (<https://epic-we.eu/>). EPIC-WE revolves around the organization of cultural game jams in three countries: Portugal, Denmark and the Netherlands, following a specific game jam model with a pre-established cultural theme (see Luz et al., 2024; Eriksson et al., 2025).

For the present paper, the game prototypes analysed were produced in the context of an EPIC-WE Cultural Game Jam with the theme "That's Not Fair", with the sub-theme being a military meeting held in Óbidos on December 1st, 1973 that would greatly influence the April 25th Revolution of 1974, which marked the end of the Estado Novo dictatorship in Portugal. With this in mind, we opted for a textual analysis of the nine games produced. This mode of analysis allows us to understand the game at a textual level, interpreting its setting, gameplay and design choices in hopes of understanding how students engaged with the proposed theme, how they interpret historical events on a narrative level, and what role can cultural games occupy as tools for engaging with cultural heritage. As such, this article intends to answer the following research questions:

How did the games produced during Óbidos' third cultural game jam represent the events of the Carnation Revolution?

How did the games produced during Óbidos' third cultural game jam engage with cultural heritage and European values?

The Cultural Game Jam Model

In 2014, the Digital Games Research Association organized their first Serious Game Jam, attempting to advance the use of games as a tool for learning about serious themes, such as social issues (Danilovic et al., 2022), culture (Laiti et al., 2021), or health (Ramzan & Reid, 2016). The unification of serious games development with the usual fast and intense atmosphere of game jams has resulted in the emergence of new game jam formats and logistics, adapted to these learning purposes (Gonçalves et al., 2024). For example, Aibara et al. (2022) developed the Serious Game Jam Operation Manual (SGJOM), adjusting its logistics to serious themes, by dividing a game jam into three phases, in order to assure an accurate preparation of the theme, with more time and the implementation of experts as facilitators during the jam.

Cultural game jams are collaborative, time-limited events where participants create games inspired by cultural heritage, historical memory, and collective identity. Unlike traditional game jams that focus primarily on gameplay innovation or entertainment, cultural game jams challenge participants to engage with meaningful themes, such as biodiversity, freedom or literacy, often rooted in local or national narratives. These events bring together participants from different institutional, professional and academic backgrounds, who end up forming teams typically including designers, programmers, artists, and researchers. These teams work together to co-create digital or analogue games in response to a shared theme introduced at the start of the event. Cultural game jams have several goals such as fostering critical reflection on cultural and historical topics, reimagining European values,

and both preserving and transforming cultural heritage, all through game-making. By doing so, they aim to promote civic engagement, historical awareness, and a deeper understanding of social and political contexts, especially among young participants, empowering them to take an active role in cultural creation. Additionally, they support experimentation with game-based storytelling as a means to preserve and reimagine cultural memory, enabling players and creators alike to engage with heritage in interactive and creative ways.

Óbidos' Third Cultural Game Jam

The third edition of the Óbidos Cultural Game Jam took place in Óbidos, Portugal, from February 4th to 7th. This game jam was part of the EPIC-WE project bringing together 38 participants, 19 university students and 19 high school students, to co-create games inspired by Portugal's political history. The theme of this cultural game jam was "That's Not Fair", linking two significant historical moments: the Meeting of the Captains on December 1st and the April 25th Revolution. This was a pivotal meeting of military officers that played a crucial role in shaping Portugal's political landscape. The April 25th Revolution, also known as the Carnation Revolution, took place in 1974 and led to the fall of the Estado Novo dictatorship, paving the way for democracy in Portugal. The framing of the "That's Not Fair" theme through this sub-theme encouraged participants to explore concepts of justice, freedom, and fairness, linking these historical events to European values of democracy.

The game jam was divided into a pre-game jam phase, where cultural activities were done with participants to prepare and engage with the theme, and the game jam itself, dedicated

to game development. During the pre-game jam, participants gathered at Universidade Lusófona for the theme reveal. Then, they travelled to Óbidos, where they toured the village and visited symbolic locations, including the Casa da Música—site of the historic “Captains’ meeting” of 1973. This visit not only grounded participants in the local history but also provided a sensory and spatial context for ideation. These visits were guided by cultural facilitators, who would answer any questions participants may have regarding the theme. After the pre-game jam activities, participants engaged in a four-day creative process hosted at Creativity Square, in Óbidos.

Day 1 served as a foundational phase for ideation, setting the stage for the game jam. Activities included the arrival of participants, a Twine workshop tailored for high school students, an exploratory walk through the village to gather natural materials, such as sticks or rocks that would be helpful for a later workshop, a group dynamic session, and a shadow projection ideation exercise. These pre-game jam activities were crucial in stimulating creativity, fostering collaboration, and inspiring the thematic and conceptual direction of the games. Day 2 was dedicated to autonomous game development, creating game logs on Itch.io, and presenting ideas. On Day 3, development continued as teams refined their games and submitted progress screenshots. Day 4 culminated in the submission of final deliverables, a public showcase attended by the mayor of Óbidos, the high school director, and Otávio Pinto (a central figure in the 1973 meeting), followed by a post-mortem reflection session.

During the game jam, participants had support from both cultural and game-making facilitators, who were available

throughout the event. The facilitators would visit each group to check in and offer assistance. Participants also had pitch sessions where all facilitators were present, providing valuable feedback on their progress.

Methodology

The project uses several different methods and instruments to gather research data. Participants are asked to fill out surveys before, during and after the game jam, answering questions about their expectations, experience with games, satisfaction and perceived learning experience. After the event, teams and cultural facilitators are interviewed to provide us with more detailed information that contextualizes and offers us new data on the event. There are also observation grids filled out by researchers and as mentioned, pitching sessions that are recorded and transcribed. Lastly, game prototypes are played and reviewed using a structured questionnaire, completed by two researchers from different academic backgrounds: one from Computer Engineering and the other from Communication Sciences.

The questionnaire begins with questions related to the evaluator’s demographic information and academic background, establishing context for the subsequent analysis. Following this, the questionnaire focused on the prototype evaluation itself and concluded with a reflective section in which the evaluator had to consider the game’s cultural and educational value.

The questionnaire included both closed-ended questions, using a Likert scale for quantifiable insights, and open-ended

questions designed to capture more nuanced, qualitative feedback. This combination allowed for a comprehensive analysis that addressed both measurable attributes and subjective impressions. Here is its structure in detail:

Demographic Data

The questionnaire firstly gathered demographic information from the evaluators. Respondents were asked to indicate their age, gender, nationality, and current occupation, as well as their year and level of progression in higher education. Additional questions concerned their area(s) of study and whether they had ever participated in a game jam.

Researcher Background

Evaluators were asked to provide a brief account of their professional background, along with details of their prior experience with games, whether as players, developers, designers, or in other capacities, as well as the frequency of their engagement with games.

Game Description

Respondents were asked to record basic factual details about the game they were evaluating. This covered the game's title, the official description provided by the developers on *itch.io*, the software version used for its development, the platform on which it was played, as well as its genre and the tags most accurately describing its type.

Likert Scale

Each game was evaluated using a 5-point Likert scale, ranging from "strongly disagree" to "strongly agree," across seven dimensions. Topic Incorporation assessed the extent to which the game embedded the assigned theme. Topic Learning measured the degree to which the game facilitated knowledge acquisition or reflection on the chosen topic. Visuals evaluated the quality, coherence, and appropriateness of the visual design. Storytelling considered the clarity, engagement, and alignment of narrative elements with the theme. Mechanics examined the functionality of game rules, challenges, and progression systems, as well as their relevance to the theme. Originality captured the novelty of narrative approaches, mechanics, or design choices. Finally, Enjoyability reflects the overall quality of the player experience, including engagement, flow, and emotional impact.

Researcher Reflections:

The evaluators began by providing a brief, open-ended description of each game in their own words, offering an overview of its narrative, mechanics, and overall presentation. This initial account set the stage for a more in-depth examination, guiding evaluators as they reflected on how the game functioned and what it communicated. Their reflections then addressed several interconnected aspects, beginning with the potential learning outcomes, or what players might gain in terms of knowledge or understanding. From there, evaluators considered the game's cultural relevance, analysing how historical or cultural narratives were represented and integrated into the experience. This naturally led to an assessment of

European values, exploring how principles such as democracy, freedom, solidarity, and equality were conveyed through the gameplay and story. In evaluating social issues, researchers examined the broader societal themes the game engaged with, including questions of justice, fairness, and discrimination. Finally, the evaluators reflected on cultural dimensions, considering the ways the game represented or interpreted cultural perspectives and expressions, and how these elements contributed to the overall meaning and impact of the game.

Both evaluators played through the different games independently, with no contact with each other to ensure no biases, under similar conditions, ensuring consistency in exposure and experience. Upon completing the game, each researcher filled out the questionnaire, the responses were anonymized and compiled for future comparative analysis.

Textual analysis

During this process, researchers noticed that, while games dealt with the themes and values in different ways, there were similarities between them on a narrative level, such as similar protagonist archetypes, narrative structures and choices offered to the player. Such similarities seemed valuable to explore, as further examination of the games using a different framework could yield interesting results that complemented our first analysis. The questionnaire was useful to retrieve information and easily sort it out for comparisons between local game jams and/or all hubs, but we believed going beyond the instrument and analysing the games under an interpretative method more suited for narrative

analysis would provide readings that would complement current research instruments. Considering this, we opted for textual analysis,

Once a controversial idea, with some scholars arguing that video games could not be read as text or understood using usual methods applied to other media (Juul, 2000), the game studies field has amply borrowed techniques and ideas from textual analysis as a way to further understand the medium, tackling topics such as sexism (Tompkins et al, 2020), and identity (Kirkland, 2005).

Efforts have been made to develop a methodological toolkit for the qualitative study of games (Consalvo & Dutton, 2006; Daneels et al 2022), and books like Clara Fernández-Vara's *Introduction to Game Analysis* (2019) serve as comprehensive contributions to this endeavour. Concerning the field of digital learning and serious games, Catherine Beavis' *Games as Text, Games as Action: Video Games in the English Classroom* (2012) proposes a model for thinking about video games as both text and action, inspiring a framework for analysing digital education games (Jackson et al, 2022). Our analysis is informed by these perspectives, with a particular focus on Fernández-Vara's work. This evaluation framework informed the analysis of two formal aspects of the games: story and gameplay. Regarding the story, we will focus on aspects such as the framing of the protagonists, the narrative goals (ie. what happens when you complete the game?), what decisions the player is asked (or even forced) to make and how it relates to the theme and sub-theme of the Cultural Game Jam. Regarding the latter, we will also look into how the real-life events are incorporated and/or adapted by the participants. As for gameplay, our focus is on

what the games ask of us: how do we progress through the story? Do the game mechanics relate to the theme in any way? Do they foster any type of specific skill?

There is one methodological limitation that must be addressed. Both researchers were present during the event, which means they accompanied the development of all games, including pitching sessions where the developers explained their references and intentions. While textual analysis is not wholly blind, as cultural and historical context inevitably alters a researcher's perception and interpretation of the text, it should be disclosed that the researchers had access to this information and are not approaching these games totally blind. Even so, the analysis produced came solely from interaction with the game mechanics and story, and the author's intentions and other information available was not considered.

The game jam produced nine games (<https://itch.io/jam/epic-we-04-obidos>): four choose-your-own-adventure games, a visual novel, a *Papers, Please*-style game, an adventure game, a side-scroller puzzle game and a social deduction board game. All the choose your own adventure games were made using Twine, an open-source tool for producing interactive and non-linear stories, while the rest (excluding the board game) were developed on Unity. All games incorporated the theme "That's Not Fair" through the representation of the Carnation Revolution, dealing with values such as freedom of speech, democracy, and censorship in an unequivocal way. This is likely due to the emphasis given to this historical event during the pre-game jam activities. Participants were introduced to a text about the captains meeting with additional context and some notes taken during the meeting itself, which, along with

the guided visit, would form the basis of their understanding of this event. As previously stated, our first foray into the game analysis showed us there were significant thematic differences in the ways each game represents revolutionary action. Thus, games were divided accordingly into three thematic categories, based on the perspectives adopted by the narrative: Heroes, Helpers, and Villains.

Heroes

In all four choose-your-own-adventure games and the visual novel, we take on the role of someone who is a willing, ideologically driven actor in the revolutionary process. In *Caminho para a Liberdade* and *Operação Óbidos*, we play as a military officer who is invited to a secret meeting to overthrow the government. *Sombras do Regime* puts us in the role of a journalist tipped about important documents that could bring down the regime, while *Dia Anterior*, the visual novel, is about a university student who must choose whether to take part in the revolution. *Os 3 Porquinhos e a Revolução* presents a similar structure with a twist, choosing to retell the fable of the Three Little Pigs with revolutionary imagery. The player chooses to play as one of the titular pigs, who is waiting for their mother (who is secretly planning a revolution with the rest of the forest animals) and must evade the Big Bad Wolf, Salazar.

All of these examples are a heavily fictionalised take on the Carnation Revolution, focused on imagined key moments rather than an intricate revolutionary process. While some of the games are obviously inspired by the secret meeting held in Óbidos that was highlighted during the pre-game jam

activities, they opt for representing it as a grand, dramatic event with heightened importance: the entire revolution hinges on its success. This is a similar historical approach to the Great Man theory, a focus on the individual agency of powerful men as great motors of history popularised by Thomas Carlyle (Bisk Education, 2015).

This concept resembles the narrative structure of the monomyth, or the Hero's Journey, popularised by Joseph Campbell. This common template for storytelling proposes a baseline structure for stories that consists of the following:

A hero ventures forth from the world of common day into a region of supernatural wonder: fabulous forces are there encountered and a decisive victory is won: the hero comes back from this mysterious adventure with the power to bestow boons on his fellow man (Campbell, 1949, p.30)

This model has been criticised by educators (Aston, 2024), scholars (Jennings, 2022) and industry professionals (Gomez, 2017) alike due to its reliance on individual action in detriment of collective efforts. Much like the Great Man Theory, it neglects cumulative historical processes to put the spotlight on a "protagonist", whose decisive action shapes the world around them. Its presence in the examples above might be explained by its ubiquitousness in popular video games. Commercial ventures into the media often emphasize the player's "power level" as a means of individual empowerment, which often translates into a male-oriented violent power fantasy (Habel, 2018). Players, meanwhile, have come to expect this fantasy to be fulfilled, deriving great pleasure from

feelings of success, joy and control over virtual worlds (Vornhagen et al, 2023). Thus, the monomyth serves as the perfect instrument for player empowerment, and its influence is felt in the above examples.

Helpers

Two games, *Bufo Catcher* and *The Clueless Otávio Pinto*, opted for another approach. Instead of putting us in the driving seat of the revolution, we play as people with small roles that end up being crucial for the success of the military movement. In *Bufo Catcher*, we are in charge of finding out the "bufo" (snitch) during an important meeting held by members of the armed forces, while in *The Clueless Otávio Pinto*, a game based on the real-life account of a man of the same name, we play as the titular character and must collect items to help throw a party, not aware that it is in fact a secret meeting. Gameplay is mundane, involving simple or bureaucratic tasks like collecting items (*The Clueless Otávio Pinto*) or checking documentation (*Bufo Catcher*). These types of menial objectives and repetitive gameplay create a more grounded feel, and the lower stakes allow the player to contextualise their actions through the lens of a movement rather than individual action.

While the "Heroes" games resembled the familiar pattern of the monomyth, "Helpers" games have a more subdued protagonist. In *Clueless Otávio Pinto*, the protagonist's involvement in the captain's meeting is minimal. As the title implies, he is clueless about the extent of his involvement in a military coup and the shaping up of a historical event. In *Bufo Catcher*, the protagonist isn't even characterized, serving as the perfect stand-in for the player. If the games discussed in the above

section lent themselves to a more commercial structure, these two examples are more akin to serious games. The goal isn't to use the interactive properties of video games to empower the player through grand action and exciting choices, but to teach them about real-life history and cultural heritage in a potentially interesting way. Conventional player empowerment takes a backseat to allow a different type of fun.

This is also justified by the fact that these two games function as a retelling of events based on a real-life account. By directly adapting a real-life event explored during the pre-game jam activities, the games put the players closer to historical reality, rather than the looser, more abstract representations present in the above chapter. These would be closer to reenactments, a common mode of historical representation in video games, though usually used for warfare or violent scenarios (Chapman, 2016). Its closeness to the subject matter raises the question of historical accuracy. Games with cultural-heritage elements conceptualise accuracy in several ways, from attempts at a realistic simulation to systems that reproduce historical conditions, or even the deconstruction of historical narratives (Coppstone, 2016). It is also commonplace to make changes that don't strictly conform to historical accuracy in an attempt to make the game more accessible, preferring a feeling of "historical authenticity" (Burgess & Jones, 2021). Taking a few liberties with the game's narrative brought players closer to the action, creating situations where they could have agency and unlocking the potential for interaction and decision making, crucial aspects that precede historical and cultural exploration in games (McCall, 2018).

Villains

The last two games present a change in narrative focus from the previous two categories. Shifting away from the revolutionary process itself, these two games instead focus on life under the regime. *Message of the Red Cloves*, the only board game developed, is a social deduction game where players must cooperate to spread a message by delivering cards to each other. The catch: some players might actually be undercover state agents, and their goal is to intercept the message and arrest any potential threats to the regime. The game creates an atmosphere of tension, with players unable to trust one another. If they spread the message to the wrong person, they might end up in jail. *Blue Brigade* does the opposite: the player is a PIDE officer, Estado Novo's secret police, responsible for censoring any dissident ideas. Gameplay consists of running around the map, looking for rule-breakers so they can be "censored". Every in-game day, they are given new guidelines on what needs to be censored, with tasks piling up and becoming more difficult as the game progresses. On the last day, the player is unable to complete their mission, as there are too many people flouting the rules. The game ends with the army marching on the protagonist, signalling the end of the regime.

These two games present a unique narrative design, as they invite the player to play the role of a villain. Other games produced during this cultural game jam allowed the player to "betray" the revolution and side with the dictatorship, but the consequences were never shown. In these examples, however, the gameplay forces the player (or some players, in the

case of *Message of the Red Cloves*) to be complicit in repressive action, allowing them to fully play as “the bad guys”.

This narrative framework isn't used to normalise repressive behaviour, but to criticise it, offering the opportunity for transformative reflection by reconfiguring players' expectations and perspectives through gameplay (Whitby *et al*, 2019). *Blue Brigade* is especially adept at this type of introspective design. Their criticism of censorship and persecution of free speech is reflected through the inane and ridiculous nature of the requests made by the authorities, as the player searches the map for people with yellow hats or talking about elephants. *Messages of the Red Cloves* has us doubting our own friends and colleagues, and playtesting sessions often lead to role-playing moments that turned it into a farce.

Video games have often been criticized for using what Hartmann calls a “moral disengagement model” used to soften the moral severity of player action (Hartmann, 2017). Here, this model is replaced by a critical approach that emphasises the damaging effects of player action, very similar to popular newsgames such as *September 12th*, cleverly designed as a critique of the United States' foreign policy post the September 11 attacks (Treanor & Mateas, 2009). Narrative and gameplay design create an accessible experience that clearly conveys a sociopolitical message: in these games, the only morally correct action that the player can take is not to play (Heron & Bedford, 2014).

Discussion

To summarise, the nine outputs from the Cultural Game Jam can be thematically sorted into three categories, based on the role of the protagonist. Some, influenced by prevailing notions of historical narrative and storytelling, use the main character as the main vehicle for revolution and societal change, falling into the “Hero” category, while others frame individual action into a larger scheme of revolution, where their actions were helpful but not entirely decisive (the “Helper” category). Finally, some games put the player in the role of the villain, exploring the moral consequences of their actions as acting members of the dictatorship, fitting into the “Villain” category.

Creating this division helps sort out the different ways in which games can produce meaning through narrative, gameplay and/or a combination of both, and highlights the plurality of meanings that can be derived from them. This is especially relevant considering the context in which these games were created, as this analysis enables us to identify how young game designers interact with cultural heritage and make sense of European values. For example, the influence of commercial games is felt throughout all games, particularly in the “Heroes” category, which, as we've seen, adopts a narrative structure that closely resembles predominant forms of storytelling. It should be noted that all games in the Heroes category were made by high school students. Due to their relative inexperience with game development software, they were instructed how to use Twine, a platform designed for creating interactive fiction, attending workshops with facilitators to learn how to use it. Their reliance on mainstream notions of storytelling could be explained by several factors,

like a limited timeframe, familiarity and the type of games they typically play.

Meanwhile, games in the Helpers category present more intricate narrative design decisions and overall structure. These games were designed by university students from the video game and visual arts courses, more experienced with development tools and notions of game design, and pulled from a wider array of influences. *Bufo Catcher* is a particularly good example, deriving its gameplay from critically acclaimed serious game *Papers, Please* (2013). As such, their narrative design is more experimental, resulting in different types of engagement with the source material. These prototypes have more in common with traditional serious games. Challenging the notion that these games “do not have entertainment, enjoyment, or fun as their primary purpose” (Michael & Chen, 2005), they use humorous dialogue and repeatable gameplay loops as hooks for teaching about the subject matter, adapting real-life circumstances directly (with the expected creative licenses to fit the medium and genre).

If Helpers games serve as mostly exposition, their main goal being retelling a story, Villains games take it one step further. Also developed by higher education students, these games were the best examples of combining gameplay and story to form an immersive experience that led to moral reflection. The story and gameplay run concurrently, critically engaging with the source material in a more abstract depiction of events (nevertheless rooted in real-life history). This provides for deeper engagement with the source material than the previous two categories. That isn't to say Heroes or Helpers games don't do a good job of exploring cultural heritage and

European values, but design strategies such as those present in Villains games lead, in our view, to a more interesting exploration of such themes.

Conclusion

By interpreting them as text and analysing its story and gameplay content, we hoped to understand how these games engaged and remixed cultural heritage elements through narrative design choices. This led to the appearance of three categories, each with differences on how to handle these themes, depending on a designer's experience with the medium. We noticed high school students tended to make simpler games that engaged with the material in a more straightforward way, while higher education students explored other, more complex ways to communicate the same message, such as putting the player in the role of the traditional villain to invite critical reflection. The Carnation Revolution is thus explored in a plurality of ways, reflecting the different viewpoints, experiences and interpretations of the participants. While this outcome might have been expected (and it is not our intention to compare the two groups in a competitive manner), our analysis gives us valuable insights into how the cultural game jam model influences historic depictions and representations and how cultural games generate meaning.

All three categories have specific narrative frameworks that hint at possible future developments and serve as starting points for further investigation. It would be interesting to continue to explore how player agency interacts with historical authenticity, for example, or how it influences perceptions of historical events through established narratives like the Great

Man Theory. There is extensive literature on video games' potential for moral exploration (Sicart, 2009, 2013, 2021; Ryan *et al*, 2020), and cultural games are particularly well-suited to serve as spaces for it to take place. Finally, a focus on historical representations on cultural games and how they shape a society's understanding of real history could be of great interest.

Literature suggests that games used as digital learning tools benefit from storytelling elements as ways of immersing the player, creating a learning environment (Naul & Liu, 2020). This immersion also provides psychological benefits, such as putting the player in a flow state that influences the perceived learning from players (Alexiou *et al*, 2022). As such, if cultural game jams are to be successful in creating games that serve as important cultural signifiers and ways of both imparting knowledge and shaping social identities and cultures, their narrative must be a focal point during development, either through workshops or through how they communicate their theme to the participants.

Our results show the value of cultural game jams insofar as they offer space for producing meaningful games that interact with cultural values in a meaningful way, and reaffirm the importance of using video games as platforms for imagining and interpreting past, current or even future events, given the richness of ideas that can be extracted from their content. Through it, they materialize events and ideas that might be difficult to think about in other ways, and explore essential questions like historical authenticity, individual action, and moral quandaries about repressive ideologies. Either in the form of cultural games or their commercial counterparts,

video games and their educational purposes must continue to be studied.

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Author's contribution

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Bibliography

Aibara, M., Kawakami, S., & Furuichi, M. (2022). Serious Game Jam Operation Manual:

Prototype Development and Evaluation. Proceedings of the 2022 *DiGRA International Conference: Bringing Worlds Together*, 1–16. http://www.digra.org/wp-content/uploads/digital-library/DiGRA_2022_paper_1851

Alexiou, A., Schippers, M. C., Oshri, I., & Angelopoulos, S. (2022). Narrative and aesthetics as antecedents of perceived

learning in serious games. *Information Technology & People*, 35(8), 142–161. <https://doi.org/10.1108/ITP-08-2019-0435>

Aston, J. (2024). There's more to life than the monomyth: multiperspectival approaches to teaching narrative and story in university film and media departments. *Media Practice and Education*, 25(2), 123–136. <https://doi.org/10.1080/25741136.2024.2331342>

Beavis, C. (2014). Games as text, games as action: Video games in the english classroom. *Journal of Adolescent & Adult Literacy*, 57(6), 433–439. <https://doi.org/10.1002/jaal.275>

Bisk Education. (2015) *The Great Man Theory*. Villanova University, www.villanovau.com/resources/leadership/great-man-theory/. Accessed 15 May . 2025.

Burgess, J., & Jones, C. (2021). Exploring Player Understandings of Historical Accuracy and Historical Authenticity in Video Games. *Games and Culture*, 17(5), 816-835. <https://doi.org/10.1177/15554120211061853>

Campbell, Joseph. (1949). *The Hero with a Thousand Faces*. New York City, NY: Pantheon Books.

Camuñas-García, D., Cáceres-Reche, M. P., Cambil-Hernández, M. d. I. E., & Lorenzo-Martín, M. E. (2024). Digital game-based heritage education: analyzing the potential of heritage-based video games. *Education Sciences*, 14(4), 396. <https://doi.org/10.3390/educsci14040396>

Chapman, A. 2016. *Digital Games as History: How Videogames Represent the Past and Offer Access to Historical Practice*. New York: Routledge.

Consalvo, M. and Dutton, N. (2006). Game analysis: developing a methodological

toolkit for the qualitative study of games. *Game Studies*. 6(1).

http://gamestudies.org/06010601/articles/consalvo_dutton.

Copplestone, T. J. (2016). But that's not accurate: the differing perceptions of accuracy in cultural-heritage videogames between creators, consumers and critics. *Rethinking History*, 21(3), 415–438. <https://doi.org/10.1080/13642529.2017.1256615>

Daneels, R., Denoo, M., Vandewalle, A., & Malliet, S. (2022). The Digital Game Analysis Protocol (DiGAP): Facilitating Transparency in Games Research. *Proceedings of DiGRA 2022*. DiGRA.

Danilovic, S., Skop, M., & Oliver, V. (2022). Making Sense of Lived Experiences with Opioid Addiction through Autobiographical Game Design and Game Jamming Practices. Proceedings of the 2022 DiGRA International Conference: Bringing Worlds Together. *DiGRA International Conference: Bringing Worlds Together*. http://www.digra.org/wpcontent/uploads/digital-library/DiGRA_2022_paper_152.pdf

Eriksson, E., Holflod, K., & Nørgård, R. T. (2024). Creative toying with cultural heritage in game jams. *In Proceedings of*

the 8th International Conference on Game Jams, Hackathons and Game Creation Events (ICGJ '24) (pp. 9–16). Association for Computing Machinery, New York, NY, USA. <https://doi.org/10.1145/3697789.3697795>

Fernández-Vara, C. (2019). *Introduction to game analysis* (Second edition). Routledge Taylor & Francis Group.

Gomez, J. (2019). *The Hero's Journey is No Longer Serving Us*. Medium. <https://blog.collectivejourney.com/the-heros-journey-is-no-longer-serving-us-85c6f8152a50>

Gonçalves, M., Nunes, I., Fernandes, P., & Costa, C. (2024). What is “Learning” in Serious Game Jams? A Systematic Literature Review. *Proceedings of the European Conference on Games-based Learning*, 18(1), 304-311. <https://doi.org/10.34190/ecgbl.18.1.2673>

Habel, C. S. (2018). Doom Guy comes of age: mediating masculinities in power fantasy video games. *M/C Journal*, 21(2). <https://doi.org/10.5204/mcj.1383>

Hartmann, T. (2017). The «moral disengagement in violent videogames» model. *The International Journal of Computer Game Research*, 17(2).

Heron, M. J., & Belford, P. H. (2014). Do you feel like a hero yet? Externalised morality in video games. *Journal of Games Criticism*, 1(2), 1–22. <http://gamescriticism.org/articles/heronbelford-1-2>

Jackson, L. C., O'Mara, J., Moss, J., & Jackson, A. C. (2022). Analysing digital educational games with the Games as Action, Games as Text framework. *Computers & Education*, 183, 104500. <https://doi.org/10.1016/j.compedu.2022.104500>

Jennings, S. C. (2022). Only you can save the world (of videogames): Authoritarian agencies in the heroism of videogame design, play, and culture. *Convergence*, 28(2), 320-344. <https://doi.org/10.1177/13548565221079157>

Juul, Jesper. (2000). *What computer games can and can't do*. Paper presented at the Digital Arts and Culture conference in Bergen, Norway, November. Available online at <http://www.jesperjuul.dk>.

Kirkland, E. (2005). Restless dreams in Silent Hill: approaches to video game analysis. *Journal of Media Practice*, 6(3), 167–178. <https://doi.org/10.1386/jmpr.6.3.167/1>

Laiti, O., Harrer, S., Uusiautti, S., & Kultima, A. (2021). Sustaining intangible heritage through video game storytelling - the case of the Sami Game Jam. *International Journal of Heritage Studies*, 27(3), 296–311. <https://doi.org/10.1080/13527258.2020.1747103>

Laamarti, F., Eid, M., & El Saddik, A. (2014). An overview of serious games. *International Journal of Computer Games Technology*, 2014, 1–15. <https://doi.org/10.1155/2014/358152>

Luz, F., Almeida, W., Fernandes, P., & Fonseca, M. (2024). Cultural game jam model: a quadruple helix intervention. In *Proceedings of the 18th European Conference on Games*

Based Learning, 18(1), 46–54. <https://doi.org/10.34190/ecg-bl.18.1.2642>

Michael, D.R. and Chen, S.L. (2005), *Serious Games: Games that Educate, Train, and Inform*, Muska & Lipman/Premier-Trade.

McCall, J. (2018). *Video Games as Participatory Public History*. in *A Companion to Public History* (pp. 405–416). Wiley Blackwell.

Muriel, D., & Crawford, G. (2018). *Video Games as Culture: Considering the Role and Importance of Video Games in Contemporary Society*. Routledge.

Naul, E., & Liu, M. (2020). Why story matters: A Review of Narrative in Serious Games. *Journal of Educational Computing Research*, 58(3), 687–707. <https://doi.org/10.1177/0735633119859904>

Ramzan, R., & Reid, A. (2016). The importance of game jams in serious games. *Proceedings of the 10th European Conference on Game Based Learning*. 111 https://rke.abertay.ac.uk/ws/portalfiles/portal/15191550/Reid_TheImportanceOfGameJamsInSeriousGames_Published_2016.pdf

Ryan, M., Formosa, P., Howarth, S., & Staines, D. (2020). Measuring morality in videogames research. *Ethics and Information Technology*, 22(1), 55–68. <https://doi.org/10.1007/s10676-019-09515-0>

Sicart, M. (2009). *The Ethics of Computer Games*. MIT Press.

Sicart, M. (2013). *Beyond choices: The Design of Ethical Gameplay*. The MIT Press.

Sicart, M. (2021). Toward an ethics of Homo Ludens. In V. Rapti & E. Gordon (Eds.), *Ludics: Play as Humanistic Inquiry* (pp. 21–45). Springer. https://doi.org/10.1007/978-981-15-7435-1_2

Treanor, M., & Mateas, M. (2009). Newsgames – Procedural rhetoric meets political cartoons. *Proceedings of Nordic DiGRA 2010 Conference: Experiencing Games: Games, Play, and Players*. <https://doi.org/10.26503/dl.v2009i1.462>

Tompkins, J. E., Lynch, T., Van Driel, I. I., & Fritz, N. (2020). Kawaii killers and femme fatales: a textual analysis of female characters signifying benevolent and hostile sexism in video games. *Journal of Broadcasting & Electronic Media*, 64(2), 236–254. <https://doi.org/10.1080/08838151.2020.1718960>

Vornhagen, J. B., Bennett, D., Murphy, D., & Mekler, E. D. (2023). “I’m the leader and I’m going to save the world”: characterizing empowering and disempowering game experiences. *Proceedings of the ACM on Human-Computer Interaction*, 7(CHI PLAY), 1330–1360. <https://doi.org/10.1145/3611071>

Whitby, M. A., Deterding, S., & Iacovides, I. (2019). «One of the baddies all along»: moments that challenge a player’s perspective. *Proceedings of the Annual Symposium on Computer-Human Interaction in Play*, 339–350. <https://doi.org/10.1145/3311350.3347192>

Wulf, T., Possler, D., Breuer, J. (2023). Content analysis in the research field of video games. In: Oehmer-Pedrazzi, F., Kessler, S.H., Humprecht, E., Sommer, K., Castro, L. (eds) Standardisierte Inhaltsanalyse in der Kommunikationswissenschaft – *Standardized Content Analysis in Communication Research*. Springer VS, Wiesbaden. https://doi.org/10.1007/978-3-658-36179-2_25

Ludography

Pope, L. (2013) *Papers, Please* PC, Android, iPhone