DIGITALOBS 04

HEALTH & WAR CRISIS GAMES:
EXPLORING MEDIA LITERACY IN INTERACTIVE ENVIRONMENTS

DIGITALOBS

DIGIMEDIA

INDEX

HEALTH & WAR CRISIS GAMES:
EXPLORING MEDIA LITERACY IN INTERACTIVE ENVIRONMENTS

DIGITALOBS
Digital Media Observatory

Abstract

Media literacy plays a crucial role in preparing children and young adults to respond responsibly during times of crisis, fostering a critical perspective towards global events. This study was conducted as part of the YO-MEDIA: Youngsters' Media Literacy in Times of Crisis project, which aims to enhance young people's media literacy skills through innovative game-based learning strategies. To gain insight into the current landscape in this field, games related to health and war crises were surveyed on the Steam and MetaCritic databases, to analyse their potential to promote critical thinking and media literacy, considering factors such as themes, reach, design, and user engagement. The study's findings are intended to guide the development of games that improve media literacy and critical thinking among the youth.

Keywords

MEDIA LITERACY	GAMES
HEALTH CRISES	WAR CRISES
POLITICAL CRISES	GAME-BASED LEARNING
STRATEGIES	BENCHMARKING

Introduction

In this study, seven games related to health and war crises were selected from a vast pool of video games from the Steam database, according to their relevance to promoting critical thinking and media literacy.

The benchmarking process involved analysing various aspects of these games, such as themes, game reach, social media presence, game structure and design, and player experience. Divided by theme, comparative tables were then created to better understand the each game's characteristics, providing an overview of the narrative, gameplay mechanics and portrayal of crisis.

Method

Initially, the game survey focused on Steam as the primary research database. It was selected for its extensive collection of video games and availability of detailed information, including user reviews, update histories, playability stats, release dates, and details about publishers and developers. The study also incorporated Metacritic to facilitate a comprehensive research approach and accurately assess the ratings of the reviewed games.

The project team accessed additional resources, including fandom.com, IMDb, gaming articles, YouTube gameplay videos, and the social media accounts of the games or their developers for extra context and details on the games. In early March 2023, the search terms "war," "pandemic," and "crisis" were used on Steam, yielding over 13000 results.
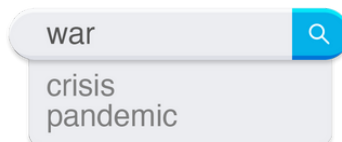
To narrow down the research, exclusion criteria were implemented. These criteria were developed to accommodate video games that fit into the project's objective of understanding the characteristics that work on an educational and engaging level regarding crisis scenarios, namely health and war crises, on a young target audience.

The selection criteria include universal language to ensure accessibility, scientific rigour to maintain educational value, access to game-related information to support the analysis, and relevance to the research problem in hands. Therefore, a game is included if it fulfills the following conditions:

- **Rating of over 70% on Steam or Metacritic;**
- **Available in English;**
- **Target audience is under 18;**
- **Information about the game is readily available;**
- **Relates to the research problem;**
- **Not a DLC or a game in Early Access;**
- **Addresses realistic issues, providing a context that reflects real-world situations and challenges;**
- **Has an average of more than 15 monthly active users (MAU);**
- **Less than ten years old.**

These criteria helped narrow the vast pool of games to seven titles focused on health, war, and political crises. This selection process was time-consuming and limited by time constraints and the available filters provided by Steam, which would lack the detail previously set on the criteria. Consequently, accessing each game's page became necessary to ensure they met the established guidelines. Political crisis games were also included in the analysis due to the relevance of their topics and their connection to war and health crises.

Results

The games *Plague Inc: Evolved, Valiant Hearts: The Great War, 11:11 Memories Retold, Not for Broadcast, This War Of Mine*, *Rainy City*, and *Papers Please,* were selected for this analysis. Each game was reviewed, focusing on its narrative, main goals, and unique gameplay features that distinguish it from typical video games. A comparative analysis across categories assessed how these attributes affect gameplay.

Table 1 presents essential information to offer an overview, such as rating, developer, publisher, release date, country of origin, level of penetration, target audience, genre, topic, platforms supported, price, and monthly average users (MAU). All games have an international level of penetration. Afterward, the games were categorized and divided according to each crisis topic to compare each game's features.

Table 1 - Essential information

Video Game	11:11 Memories Retold	Not for Broadcast	Papers, Please	Plague Inc: Evolved	Rainy City	This War of Mine	Valiant Hearts: The Great War
Game Rating	MetaScore: 77/100	SteamDB: 94.56% (very positive)	MetaScore: 85/100	MetaScore: 80/100	SteamDB: 71.25% (positive)	MetaScore: 83/100	MetaScore: 79/100
Developer	Aardman Digital, Aardman Animations, Digixart	NotGames	Lucas Pope	Ndemic Creations	LunaBeat	11 bit studios	Ubisoft Montpellier
Publisher	BANDAI NAMCO Entertainment Europe	tinyBuild	3909	Ndemic Creations	LunaBeat	11 bit studios	Ubisoft
Release Date	8 November 2018	25 January 2022	8 August 2013	18 February 2016	10 August 2020	14 November 2014	25 June 2014
Country of Origin	France, UK, USA	UK	USA	UK	USA	Poland	France
Target Audience	12+	18+	16+	12+	12+	18+	Teen
Genre	Adventure, Third-Person	Simulation, Adventure	Puzzle, Simulation	Strategy, Turn-Based, Sci-Fi	Simulation, Futuristic, Sci-Fi	Indie, Simulation	Puzzle, Adventure
Topic	War	Political Crisis	Political Crisis	Pandemic	Pandemic	War	War
Platforms Supported	Windows, PlayStation 4, Xbox One	Windows, PlayStation 4/5, Xbox Series X/S, Xbox One, OculusQuest 2	Windows, SteamOS+ Linux, macOS	Windows, SteamOS, Xbox One, macOS, Linux, Android, IOS	Windows, macOS	Android, PlayStation 5, Xbox Series X/S, Windows, Linux, macOS	Windows, PlayStation, Xbox One, NintendoSwitch, Android, IOS
Price	24.99€	24.50€	8.99€	14.99€	6.59€	18.99€ (full bundle 21.67€)	14.99€
Monthly Average Users (players)	3	39	349	371.7	1	948	32

War Crises

Typical video games often portray war through combat scenarios from the soldiers' perspective, usually incorporating shooter and action gameplay. However, *Valiant Hearts: The Great War, 11:11 Memories Retold*, and *This War Of Mine* break away from these norms, offering players a more realistic and critical outlook.

Valiant Hearts: The Great War (fig.1) and 11:11 *Memories Retold* (fig.2) feature characters actively involved in the war but differ in their artistic style, narrative, and gameplay approaches. Valiant Hearts is a side-scrolling adventure game focused on storytelling, where players switch between four characters with unique abilities to solve puzzles during World War I. It mixes in historical facts and offers optional educational content, though some players find these elements intrusive. Its comic book-style graphics aim to enrich the narrative, particularly in addressing challenging wartime stories.

Figure 1 - Valiant Hearts: The Great War

Parallelly, *11:11 Memories Retold* also focuses on the First World War, featuring two main characters from opposing sides to highlight the human aspects of war. It diverges from *Valiant Hearts* by focusing on personal stories and choices, offering multiple endings based on player decisions. To the detriment of the often-used cubism style, the game adopts an impressionist art style, creating a distinctive, softer visual approach compared to more common war game graphics. This style, influenced by artists like Monet and Turner, as well as Aardman's narrative techniques, adds emotional depth and stands out for its artistic expression, maintaining a focus on the personal experiences of war.

Figure 2 - 11:11 Memories Retold

This War of Mine (fig.3) places players amid the harsh reality civilians face in a besieged city, where they struggle with scarcity and constant danger. It shares the switching character feature with the previously mentioned games and decision-based consequences that affect the ending.

Figure 3 - This War of Mine

However, the characters of this game are affected by their emotional state, such as hunger or guilt, compelling players to make challenging resource and safety decisions. These choices foster a deeper understanding of the civilian condition during the war, shifting the player's experience from combat thrill to the nuanced responsibility and emotional strain of survival.

Table 2 offers an overview of each game, where the narrative, gameplay mechanics, and the portrayal of war are described.

Table 2 - Narrative, gameplay and portrayal of war

		Valiant Hearts: The Great War	11:11 Memories Retold	This War of Mine
Narrative	Historical Accuracy	Factual details of WWI	Thematic accuracy, highlighting the shared human experience on both sides of the conflict	Realistic portrayal of civilian struggle
	Storytelling Style	Linear, character-driven	Dual perspective, narrative-driven	Survival-based, dynamic
	Character Development	Emotional depth, personal transformation, resilience	Dual perspective, moral complexity and humanization of the enemy	Resilience, adaptation, emotional strain
Gameplay Mechanics	Type of Gameplay	Puzzle-based with quicktime events	Narrative-driven third-person with multiple endings	Point and click survival and resource management
	Character Interactivity	Switching between multiple characters each with its own ability	Switching between 2 characters	Switching between multiple characters
Portrayal of War	Perspective	Soldier-Centric	Enemy Soldiers	Civilian
	Emotional Tone	Reflective	Humanizing	Harsh
	Representation	Focuses on challenges and solidarity among soldiers, as well as the emotional and physical hardships	Explores the individual motivations of two rival soldiers during war, blurring the line of the concept of "enemy"	Highlights the daily struggle for survival, ethical dilemmas, and the psychological toll on non-combatants

Health Crises

The keyword "pandemic" offered a variety of apocalyptic video games, which do not fit this research's scope. However, *Plague Inc: Evolved* (fig.4) stood out for its realistic portrayal of a pandemic, where players control a pathogen aiming to spread it globally. Players evolve the disease, strategize transmission methods, and counter human defences.

Figure 4 - Plague Inc: Evolved

The game's realism earned recognition from The Centers for Disease Control and Prevention (CDC), highlighting its educational value. It features strategic gameplay, multiplayer options, and varying difficulties.

Figure 5 - Rainy City

Rainy City Pandemic (fig.5) offers a different perspective on pandemics, set in a dystopian future where players navigate lockdown challenges as a delivery person. The objective is to gather enough money to purchase the delivery characters' sister's medicine and to do so, the player must manage resources and their well-being. As a delivery person, the player often interacts with customers which contributes to a reflection of the different experiences with the pandemic, and providing deeper narrative layers. User reviews highlight the game's repetitiveness, especially in movement and dialogue engagement.

This analysis suggests that realistic portrayals can still lead to engaging games. Maintaining a player's interest relies heavily on gameplay, which should offer variety and avoid monotony through repetitive tasks. Challenges and escalating difficulties are crucial. Table 3 summarizes the key features of each game.

Table 3 - Narrative, gameplay and portrayal of health crisis

		Plague Inc: Evolved	Rainy City: Pandemic
Narrative	Storytelling Style	Evolution-based focused on the evolution of a pathogen with the intent of spreading the disease world-wide	Linear, player's decisions determine the success of the main character's goal (buy medicine for his sister)
	Decision Consequences	Player's choices determine the evolution of the pathogen and its ability to survive humans efforts to erradicate it	Impact on the economic and health status of the character
	Endings	The endings range from world infection to pathogen erradication	Aquiring the medicine or failing to do so
Gameplay Mechanics	Type of Gameplay	Strategy, turn-based	Resource management
	Character Interactivity	N/A	Dialogue between multiple characters
	Learning Curve	Intuitive, however it may take some familiarity with the various options to develop a strategy	Simple mechanics and clear objective, controlling the character's car may require some practice
	Replayability	Replaying the game allows the player to explore different strategies and learn more about the pathogen's evolution	Replayability can be useful to manage resources differently
	Engagement style	Engagement through strategic planning and new challenges	Possible emotional engagement through the various struggles of the characters the player encounters
Portrayal of Health Crisis	Perspective	Centred on the pathogen and its evolution rather on human survival	Personal struggles of living during a pandemic, offering different characters' perspectives
	Representation	Realistic simulation of a real-world response to a pandemic	Fictional portrayal of real personal struggles during a pandemic

Political Crises

War crises often arise from political differences. However, portraying a political crisis in a video game is a complex challenge.

Figure 6 - Papers, Please

Papers, Please (fig.6) successfully navigates this challenge, situating players as border control officers in the fictional country of Arstotzka. Here, players encounter ethically challenging scenarios that test their judgment and morality. The game simulates a crisis environment by balancing various tasks and moral dilemmas. It offers 20 distinct endings based on the player's decisions, thereby illustrating the consequences of their choices within a politically tense setting.

Figure 7 - Not for Broadcast

Following a similar gameplay style, *Not for Broadcast* (fig.7), set in an alternate 1980s UK under a new regime, casts players as TV broadcasters who must entertain the masses, yet censor content per government orders. With various endings, the game uses news and textual segments to reveal the contrast between public information and private realities, guiding players to make strategic decisions and define their stance toward the regime.

In summary, when players' choices deeply influence the game's narrative, it fosters a sense of responsibility and reflection. Players become more aware of their decisions' consequences, understanding their role within the game world and their capacity to drive change. This dynamic gameplay allows players to understand the impact of individual action and media manipulation. Tables 4 and 5 offer an overview of these aspects.

Table 4 - Narrative

		Papers, please	**Not for Broadcast**
Narrative	Storytelling Style	Decision-based focused on the life of a border inspector in Arstotzka, handling the complexities of immigration control under a strict regime	Decision-based, the game revolves around a television broadcaster in an alternate 1980s UK, navigating the challenges of media control and censorship under a new regime
	Decision Consequences	Choices impact the player's family welfare, potential detainment or punishment, and the fate of immigrants. Multiple scenarios lead to one of twenty different endings	Decisions affect the public's perception, the broadcaster's family, and the political landscape. The game offers multiple alternate endings
	Endings	Range from the player's family surviving or suffering, being imprisoned, or fleeing the country	Vary from successful manipulation of public opinion to clashing with the new regime, with personal consequences for the broadcaster's character and family

Table 5 - Gameplay and portrayal of political crisis

		Papers, please	Not for Broadcast
Gameplay Mechanics	Type of Gameplay	Strategy and simulation	Strategy and simulation
	Character Interactivity	N/A	N/A
	Learning Curve	Initially straightforward, it becomes increasingly more complex with the introduction of new documents and rules are introduced	Initially straightforward, it requires an understandment of the context and the balance between censorship and public engagement becomes increasingly more challenging
	Replayability	Replaying the game will allow the player to explore different moral and ethical choices and unlock different endings	Replaying the game allows the player to try out different startegies and unlock different endings
	Engagement style	Engagement through several moral dilemmas and pressured decision making	Engagement through the challenge of balancing the truth, cesnsorship and entertainment, alongside with ethical and moral dilemmas
Portrayal of Political Crisis	Perspective	Focuses on the role of a border control officer in a totalitarian regime, highlighting the impact of political decisions on personal lives and moral choices	Highlights the role of media and information control in shaping public perception during a political crisis, reflecting on the power and responsibility of broadcasters
	Representation	Fictional representation of a political crisis, emphasizing the human element and personal stories within the broader context of governmental control and societal change	Fictional representation of media manipulation and the consequences of political instability, exploring the overlap of personal and public spheres

Conclusion

This analysis sought to identify video game elements that can contribute to an educational experience that engages the player. It provides a captivating method of addressing complex topics, such as crisis communication in health and war crisis contexts. The results showcase a variety of characteristics that create an environment of reflection and consequence, often requiring attention and knowledge from the player.

11:11 Memories Retold and *This War of Mine* offer deep insights into the war's human aspects.
Compelling narratives and dynamic gameplay encourage players to ponder decisions, fostering empathy and insight into crises.

Plague Inc: Evolved and *Not for Broadcast* engage players with progressive challenges.
Gameplay must avoid repetitiveness to maintain engagement.

Video games can enhance understanding of crises through historical context and ethical dilemmas, suggesting their broader educational potential.

The main challenges of this study arise from the methods used to select games and the data sources available. Despite efforts to refine the results and gather appropriate data, many games and Steam's limited filtering features presented obstacles. Moreover, focusing the analysis on something other than Steam might capture the full range of crisis-themed video games. Future research could broaden its approach to incorporate additional platforms and data sources, enhancing the understanding of video games' role in crisis communication.

DIGITALOBS
Digital Media Observatory