BETWEEN REAL AND REALISTIC

*An examination of labour and trade unions
in video games and production*

Bernadette Geiger
April, 2025

Content

Introduction

I don't recall the first game I ever played, but I'll never forget the many games that drew me into captivating worlds. I also remember the many moments I felt scared, running from one light spot to the other in the dark streets of Bright Falls in *Alan Wake* (2010) or diving through underwater caves on Rook Islands scared to be attacked by a shark in *Far Cry 3* (2012).

Since role-playing games (RPG) are becoming more realistic, trying to imitate reality not only by its graphics but also by its ingame narratives and (historical) game spaces, the game is becoming an immersive experience, blurring the boundaries of reality and fiction. Simultaneously video games are increasingly used as a platform for social and political discourse. However, the social and political themes in video games are often hidden behind the façade of high-graphic fidelity and merely serve to create immersion and emotional involvement. A look at the working conditions behind these productions reveals a precariousness that is also reflected in these game worlds.

In »*Between Real and Realistic*« I am therefore observing, analysing and contextualising how labour is displayed in RPGs focussing on the game *Red Dead Redemption 2* released by Triple-A[1] Publisher Rockstar Games in 2018. This includes the examination of narrative threads, game mechanics and aesthetic elements that focus on labour struggles and collective organisations in games. It also addresses the issue of trade unionism in the game industry itself, particularly in relation to the working conditions of developers. The representation of labour and trade unions in games not only reflects historical and contemporary conflicts, but also provides a framework to address system criticism.

[1] AAA (Triple-A) Industry is a buzzword used to classify video games produced or distributed by a mid-sized or major publisher, which typically have higher development and marketing budgets than other tiers of games (Steinberg, 2007).

While non-player characters (NPC) are programmed with litt-le autonomy working in endless loops to support the realism of the gamespace, artists, engineers, programmers and designers face periods of unpaid overtime to speed up lagging video game productions — called »*Crunch*«. The real and realistic crunch of NPCs and video game developers can be observed as separate topics, yet similarities appear between those two.

How does the visual and narrative design of games affect the perception of social realities and to what extent can these re-presentations stimulate reflection on labour, trade unions and historical events? What happens when the lines between real and realistic blurr?

Divided in three overarching levels, the first level »*Real*« analy-zes three layers that influence our understanding of how video games affect our perception of reality: The basis of increasingly sophisticated resolutions, as illustrated by the trend of hyper-realism, the implicit rhetoric of game mechanics through which interaction takes place called »*procedural rhetoric*« and the in-terface as a transmitter between reality and fiction.

In »*Realistic*« I use qualitative image and video analysis accor-ding to Ralf Bohnsack (2011) to show how labour and trade unions are portrayed in the video game *Red Dead Redemption* 2 and to what extent this portrayal reproduces or questions social norms.

In the last level »*Realization*« I am investigating the real-world working conditions within the game industry focusing on crunch culture and recent trade union movements. Parallels are drawn between the thematic content of video games and the realities of their production to show what happens when the boundaries between real and realistic blurr.

In the last part the findings will be summarised, reflecting on the broader implications of video games as cultural artifacts, ques-tioning how these representations shape players' understanding of historical and contemporary labour struggles.

Level 01
Real

Video games have been around for over 40 years and developed into a mass medium (Osterweil, 2018a). The medium has evolved from its origins as a subculture of nerds to a form that now eagerly assimilates the narratives, images, and genre conventions of both popular culture and the arts. The development of video games occurs within the broader industrial context of digital images, encompassing both the technical aspects of their production and the economic value they generate (Birken, 2022).

In order to understand how video games influence our perception, a theoretical framework is needed to help us understand certain mechanisms. I show how the trend of hyperrealism creates realistic game worlds, while players are consciously steered through this world by pre-programmed options of interaction. The binding technical element between reality and fiction is the interface, which literally transports players into the game world, but goes beyond the technical framework.

Hyper-Realism

»In recent years, the video game has not only become the highest-selling mass medium, but also the starting point for a quasi-parasitic image production that works with it.« (Klengel, Müllner, Strumpf, Windisch-Graetz, n.d., translated)

With the progress of technical possibilities and more sophisticated hardware and software, there has been a trend in game development towards immersive worlds with ever greater visual

detail. What began in the late 1970s and early 1980s with 8-bit games such as *Pong* (1972), *Space Invaders* (1978) and *Pac-Man* (1980), evolved in the late 1980s to 16-bit graphics in *Super Mario World* (1990) and *Sonic the hedgehog* (1991), and in the mid-1990s to the first 3D video games such as *Super Mario 64* (1996) and *Tomb Raider* (1996) (Thompson, 2024). With the change from standard definition (SD) to high definition (HD) around 1998/99, the television industry advertised with the promise of bringing the resolution of the film theatre into the home (KCRA 3, 2024). At the beginning of the 2000s, video games were also produced in HD resolution, *Halo: Combat Evolved* (2001) and *Final Fantasy* (2001) being two early examples. The demand and striving for photorealistic visual material is becoming ever higher, as can be seen in *The Last of Us* (2013) and *Grand Theft Auto V* (2013). In recent years, we have seen photorealism being replaced by hyper-realism (Thompson, 2024) and a more realistic version of reality being suggested through ray tracing, motion capture as well as AI and machine learning-supported systems.

The pseudo-Marxist Media Guerrilla *Total Refusal*, who focus on artistic interventions and appropriations of mainstream video games, write in *Im Spiegelkabinett des Hyperrealismus: Los Santos als spätkapitalistisches Simulakrum* (n.d.) that hyperrealism does not recreate the reality of certain objects, but the idea of it. An idealised image of these objects is created, which deforms reality and becomes a fetish of it, pretending that they are still real objects (p. 2)

American literature scholar Stefan Schubert reinforces this argument in *Dystopia in the Skies: Negotiating Justice and Morality on Screen in the Video Game BioShock Infinite* (2018) by explaining how realism as a concept is often used in video games to suggest authenticity. However, according to Schubert, this creates the danger of confusing realism with reality. At the same time this realism is used »*to evoke references to the audience's reality in order to be able to then fantastically deviate from it*« (Schubert, 2018, p. 4).

Two mechanisms can be seen here, which are triggered by the deceptively realistic graphics. On the one hand, our perception is deformed and fetishised[2] through the idealization of actual objects. This means that these objects are still perceived as real representations, whereas they are merely the idea of reality. On the other hand, the boundary between reality and fiction is blurred by the reference to our world of experience and the simultaneous deviation from it.

Figure 1: Rockstar Games (n.d.). Los Santos Grand Theft Auto V

[2] The fetish in Karl Marx's *Das Kapital* (1867) describes objects to which a quasi-religious, magical power is attributed.

Procedural Rhetoric

The game mechanics in video games, which extend beyond the visual layer, govern a framework for player's interaction within the game world. Game mechanics refer to the rules, systems, and interactive elements that structure a player's engagement and define gameplay. Ian Bogost, author and video game designer, conducted in *Persuasive games: the expressive power of videogames* (2007) an analysis of the manner in which video games present arguments and exert influence over players by presenting how real and imagined systems work. He proposed that these games are capable of opening a new domain for persuasion due to their fundamental representational mode, which he termed *»procedural rhetoric«*.

Procedural rhetoric is *»the art of persuasion through rule-based representations and interactions rather than the spoken word, writing, images, or moving pictures«* (p. ix). Bogost argues that game mechanics - the way in which players interact with the game world - contain an implicit rhetoric. These mechanics create a set of rules that not only enable action, but also shape the perception of social, political and economic realities.

Even though Bogost's concept was developed nearly 20 years ago, there are still similarities in today's video game productions compared to his chosen examples. This becomes particularly relevant when examining how games influence perceptions of labour, as mechanics often model the roles, values and power structures of workers and employers. For example, games such as *SimCity* (1989) in its early versions as well as its later versions convey certain ideologies about urban planning and economic policy. Thus, low taxes are associated with economic growth and the economy of the game is treated in the spirit of capitalism as a natural and unstoppable state of humanity. Players are solely concerned with exchanging goods as efficiently as possible, not for the benefit of the individual or groups, but to promote that cities thrive under privatisation and deregulation.

Blurred Boundaries

Besides the visual layer and the game mechanics, I would like to explore a third facet that focuses on the technical dimension: the interface. In *The Pervasive Interface: Tracing the Magic Circle* (2005) Eva Nieuwdorp, a game producer and researcher, *»investigates the place and status of the interface in the pervasive game, as well as the border between everyday reality and the virtual game world, in search of defining the interaction be-*

tween fantasy and reality in pervasive gaming« (p.1). Within the domain of digital games, the term interface can refer to either the hardware or the software that facilitates human-computer interaction. The screen, in this case, encompasses both components, as it is part of the hardware and serves as a visual representation of the game world. Nieuwdorp's argument additionally focuses on pervasive games, which are a mixture of reality and virtuality and explicitly include the player's own environment in the flow of the game, as well as using ubiquitous or persistent gameplay and thus continuing beyond fixed sessions. One popular example of a pervasive game is *Pokémon Go* (2016).

Nieuwdorp works with the concept of the interface as an element that stands between fiction and reality and functions as Alberti's window through which players immerse themselves from physical reality into the virtual universe of the game (p.3).

> *»The screen is viewed as a translucent membrane, an intermediary, which translates digital signs into actual player experience and parallels the player's physical actions to manipulation in the digital realm.«* (p.3)

She argues that advances in computation mean that the virtual and the real are increasingly interwoven not only geographically, but also socially and culturally in everyday life. This concept is reinforced by the idea that games exist in these environments and influence them. The interface itself becomes omnipresent, moulding and being moulded by the interplay between the game world and external reality - our environment is transformed into an arena of play (p. 3f).

The »*magic circle*« concept in 1938, initially introduced by Johan Huizinga[3] and subsequently adapted for application in digital games by researcher and game designer Salen and Zimmerman (2004), characterizes the game world as a transient, permeable membrane. This metaphor captures the fluid exchange between the game and the real world, transforming external elements as they pass through and affecting the player's perception of both (p. 6).

In connection with hyper-realism in video games, I would like to extend the blurred boundaries between fiction and reality beyond the genre of pervasive games to video game productions such as *Red Dead Redemption* 2. These productions do not fulfill the necessary criteria to count as pervasive games, but they do have certain features that demonstrate a persuasive character. Open world games offer an experience in which the game world can be explored with a sense of autonomy. By approximating increasingly realistic scenarios such as detailed flora and fauna and human-looking NPCs, an immersive world is created that appears to be congruent with our reality. At the same time, the game worlds and narratives touch on themes such as justice, labour and morality, which in themselves cannot necessarily be seen as pervasive, but create a link to discourses in the real world.

Role-playing games are not pervasive by definition, however, their depth, realism, and immersive storytelling can create a pervasive feeling, making players deeply invested. Their immersive nature encourages a similar cognitive shift where players engage in deep narrative and emotional investment, stepping into a semiotic domain governed by the game's own logic and structures. This process mirrors the pervasive game's challenge to traditional notions of the interface, as RPGs also rely on players' ability to transition between the lifeworld and the constructed reality of the game. The more seamless this transition, the more persistent and convincing the game world becomes, reinforcing the blurred boundary between reality and fiction even outside explicitly per-

[3] Johan Huizinga (1872 – 1945) was a Dutch historian and cultural philosopher. One of his key works is *Homo Ludens* (1938), in which he argues that play is a fundamental cultural activity of humans. Huizinga argues that culture arises from play and is characterised by playful rules and rituals. His work continues to shape discussions about games in society, education and the media to this day.

vasive game design.

The three levels of graphics, rhetoric and interface show that video games address stimuli in a variety of ways and influence our perception. On the one hand, a deceptively real world is replicated on a visual level by idealising real objects and fetishising them through this process. A quasi-magical power is conferred. On the other hand, the game mechanisms, the way in which the game is interacted with, contain an implicit rhetoric that has a guiding effect. It is specified how the game world works, so in order to win, players must learn to follow and apply the rules. The interface, which functions as a transmitter between reality and fiction, stands between the player and the game world. Due to the immersive character, players enter a semiotic realm that is determined by their own logic and the structures of the game. The more convincingly this is designed, the more the boundaries between reality and fiction become blurred.

Level 02
Realistic

Contemporary Video games and games as a medium in general go beyond entertainment. Rather, games and gaming have become anchored in most fields of our society and are increasingly used as a platform for social and political discourse.

> *»They represent how real and imagined systems work. They invite players to interact with those systems and form judgments about them. As part of the ongoing process of understanding this medium and pushing it further as players, developers, and critics, we must strive to understand how to construct and critique the representations of our world in videogame form.«* *(Bogost, 2007, p. 1)*

Following the theoretical framework, the game *Red Dead Redemption 2* will be used as an example to show how labour and trade unions are depicted in specific scenarios. After a brief introduction to the story of the game, I analyse, observe and contextualise two selected scenes, narrating from my own perspective as a player.

Methodology

The aim of this chapter is to gain an understanding of how role-playing games simultaneously influence and are influenced by social and political discourse. What limitations does the game exhibit in addressing the complexities of labour struggles and do NPCs embody the tension between realism and fictionalised exploitation? To what extent do video games like *Red Dead Redemption 2* influence our idea of labour or reproduce assumptions?

To analyse the video game, I use qualitative image and video interpretation according to sociologist Ralf Bohnsack (2011). It aims to decipher the implicit, action-guiding orientations and structures of meaning in images and videos that go beyond the explicit content. The focus is not on the explicit content of an image or video — the »*what*«, but on the way in which something is depicted — the »*how*« (p. 19-21). This makes action-guiding patterns and implicit rules visible. To this end, various selected locations in *Red Dead Redemption* 2 are first described and then the implicit structures of meaning and orientation frameworks that underlie what is depicted are worked out.
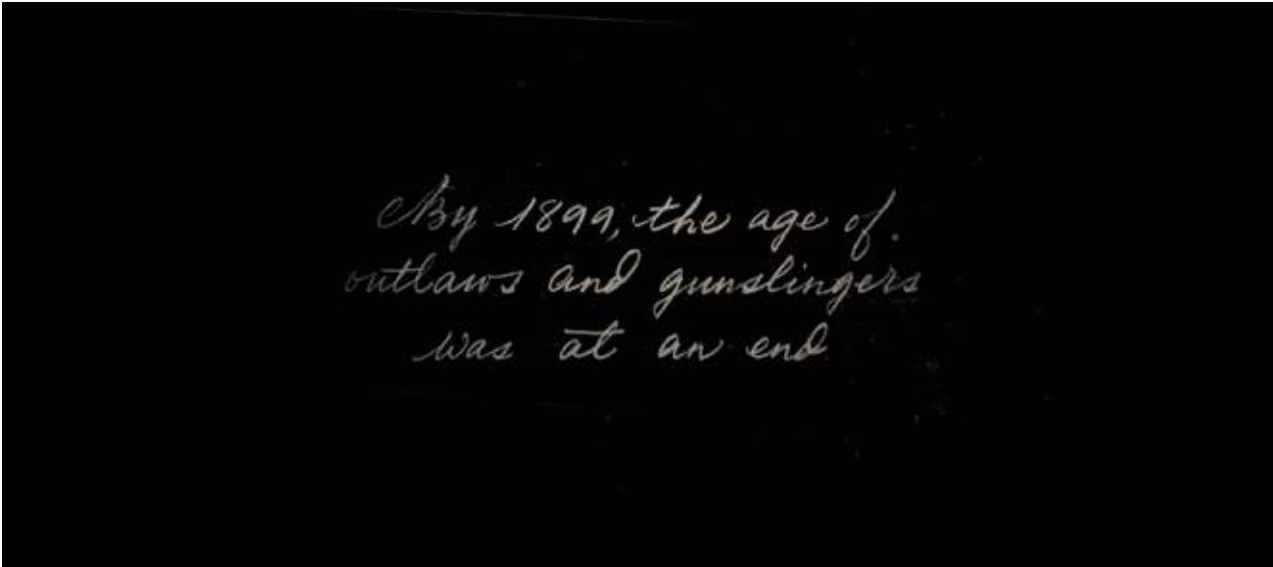
Displayed as side stories to the main plot or sometimes just by actively interacting with or through observing NPCs, the photography mode and screen recordings of the game helps to examine specific scenes and spaces. Thereby the perspective shifts from a player to an observer. For this I chose the Central Union Railroad Camp, which is not mandatory for the main story of the game, and the town of Annesburg, which is visited along the main narrative thread. By looking at the main and secondary scenes, it is possible to compare whether there are differences or negligence in the presentation of work. Another argument in favour of the chosen sequences is the wealth of detail for which RDR2 is repeatedly celebrated and which can be tested by examining a side scene as well as a main scene. On the basis of this, types or patterns can be formed that reveal similar modes of representation so that systematic comparisons can be made.

The image and video material is then analysed in its social and cultural context in order to understand its meaning and function (p. 21-23). Examining game elements as they are represented and how they work, allows contextualising labour and trade unions as well as their historic backgrounds.
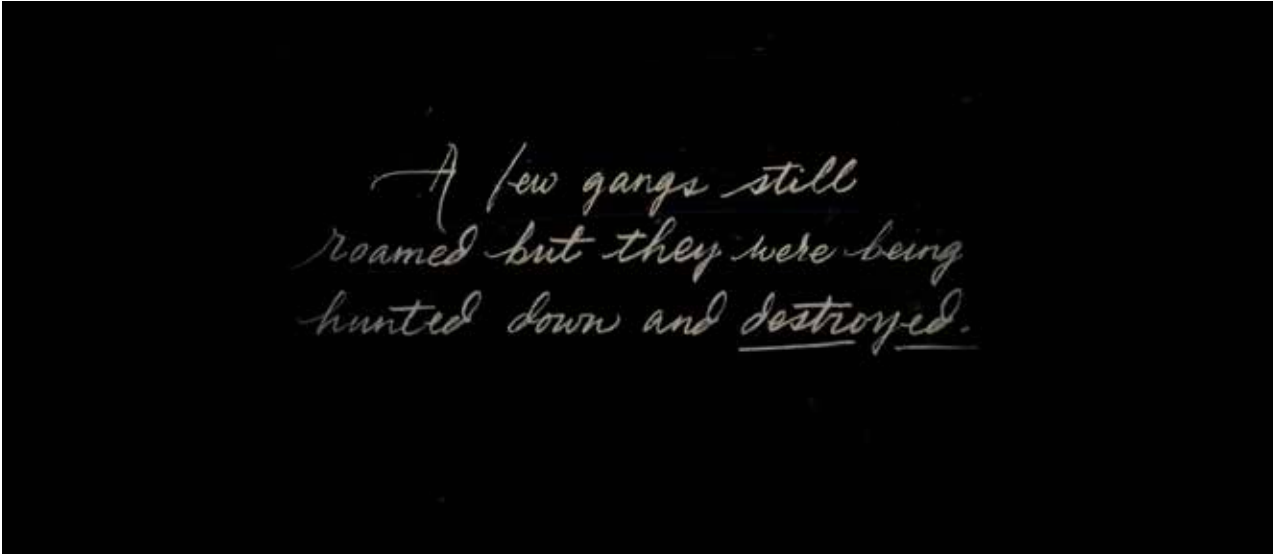
Qualitative image and video interpretation according to Bohnsack focuses primarily on completed video projects, in which the selected sequences are then analysed for their editing, montage and conspicuous features in the scenery (p. 176). In the video game, on the other hand, I move through the scene live and can only analyse criteria such as the editing or montage by recording it afterwards. However, this would lead to the analysis and interpretation of my own recording and away from the interpretation of the consciously created game world. I therefore use the method in a different variant in order to analyse the core, the »*how*«, which is also the central component of Bohnsacks method.

Observing, Analysing, Contextualising

Red Dead Redemption 2 was released in 2018 by Rockstar Games and is the third part of the Red-Dead series after *Red Dead Revolver* and *Red Dead Redemption.* Settled in the open game world in 1899 when the Wild West era of America is about to come to an end, players take on the role of Arthur Morgan. The game starts after a robbery went wrong in the western town of Blackwater forcing the Van der Linde gang, of which Arthur is part, to flee. A journey of robbery and fighting leads to internal conflicts that challenges Arthur's ideals being loyal to the gang that raised him (Rockstar Games, 2018).

Red Dead Redemption 2 has received over 175 Game of the Year awards and more than 250 perfect scores (Steam, 2024), with the game particularly praised for its complexity and richness of detail. Writers from various magazines such as The Guardian and CNET have labelled it an authoritative development of modern video games.

> *»This is a story – a collection of stories, really – about the decline of a way of life, as a small gang of outlaws tries ever harder to outrun the inexorable advance of American modernity, as well as the enemies and lawmen they have antagonised along the way ... There can be no doubt that this is a landmark game. It is a new high water-mark for lifelike video game worlds.«* *(MacDonald, 2018)*

> *»Red Dead Redemption 2 has undoubtedly raised the bar for narrative open-world games and will likely have a lasting impact on how they are made in the future. It pushes the envelope of what we understand is possible in a video game. It seems that every time we get something new from Rockstar, things inevitably change.«* *(Bakalar, 2018)*

Central Union Railroad Camp

Positioned halfway between Van Horn and Annesburg lies the Central Union Railroad Camp. The camp is traversed by the player in three distinct missions, with the location changing as the game progresses and the train line undergoing further expansion. It is important to note that the missions are not a prerequisite for progression through the game. Consequently, it is possible that the initial mission may become inaccessible and unplayable.
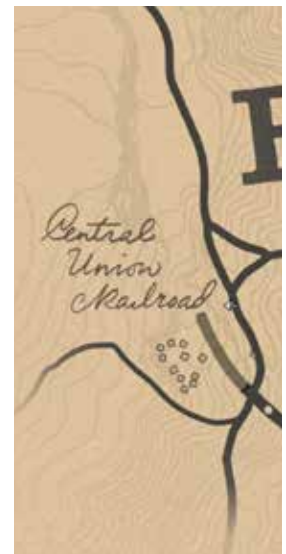
As I walk through the camp, I can see two principal areas: The train tracks as places of work and the tents as places of rest. Upon closer observation, it is evident that there is a stark contrast between the white men in leadership roles and the Cantonese workers, who are meticulously laying the train track. These differences are clear not only in activities such as guarding and controlling the workers, but also in clothing and language. The leadership roles are clearly distinguished by their elaborate clothing and boots, as well as their arms. In contrast, the cantonese laborers are distinguishable by their simple attire, including ¾ trousers, hats or caps, and shirts dirty from working. In some cases, they even wear sandals.

If I look at the various activities of the NPCs, a few recurring tasks stand out. The guards watch over the labourers and the camp 24/7, changing their position from time to time, but there is never a moment when they rest.

The labourers are either lined up along the resulting train tracks, hammering away at the ground with pickaxes, or resting in the camp. The situations in which they rest are much more elaborate. Sleeping on the beds, sitting together at the table or campfire, squatting at the entrance to the tents or smoking standing up. The more time I spend with them, the more conversations I can overhear, in which people supposedly exchange ideas. In some conversations, I overhear them discussing the exploitative working conditions, even rising conflicts between the railroad workers and the employers, but these are rather statements then going any further in context.

When I visit the camp again at a later stage, the camp moved up 200 metres further. At the previous site, traces of old glass bottles and tins can still be seen on the ground. At the new camp, however, construction work has been interrupted and the labourers are hanging around the campfire and in the tents. A little way along the stretch of road still to be built, a group of thugs are hanging out, holding up the work on behalf of Leviticus Cornwall, a wealthy businessman and major antagonist in RDR2. As the mission is not obligatory, I decline the assignment and spend 30 minutes with the labourers in the camp. In repetitive phrases, they talk about their work, family or stories they have been told. Here is an extract of different quotations (without repetition):

(In Cantonese) »They better pay us. We're ready to work here.«

»What can one do.«

»A man at the general store refused me yesterday, accused me of stealing jars from the town.«

»Have you heard? There's some bad man that come into town recently.« Worker reacting: »Ah.«

»Very well then.«

»Hard to complain on a day like this.« Worker: »I don't notice anymore.« (Guard)

»I saw this hunter bringing a bear to sell in town. He killed the whole bear himself.« Worker reacting: »Ah.«

»Everyone here is so selfish. All help a stranger unless they are American too.«

»Well ...«

»Ehh ... This place terrible.« Worker reacting: »Alright.«

(In Cantonese) »I'm going to try and take advantage of this break, it won't last forever. It never does.«

(In Cantonese) »Now my ass is starting to get callouses!«

(In Cantonese) »I cannot believe how bored I am.«

(In Cantonese) »Do they want this stupid train or not? These idiots need to make up their minds.«

»Have you heard? There's some bad man that come into town recently.« Worker replying: »It happened before, I'm sure.«

»Have you seen Lee recently? I think he really misses his wife and child in the home country.«

»Such is the price of living.«

»Steel pipe fell on one of the railroad workers today. May lose arm.«

»Ok.«

»The cattleman drank himself to death the other day. Must have been very thirsty.«

»I'm not sure if this is a rumor or not, but they said that Cornwall Railway and the Central Union are in a big fight.« Worker replying: »I heard this too.«

»Well my brother told me that more and more white ladies are coming to the dan.«

»My brother refuses to find legitimate work. He is in the dans again.«

»Laundry owners were sent to hard labour camp, no papers.«

»This a beautiful day.«
Worker replying: »Yes, very nice outside.«

»Just another of life's challenges.«

»Somehow all the dans in the neighbour-hood give clothing, me and my brother are not allowed to reopen. Makes no sense«
Worker replying: »Yeah, I heard this be-fore.«

»Not enough women at the brothels, we had to wait for two hours.«

»Good weather today.«
Worker replying: »Better than rain.«

»I haven't heard from my family in many months. I think the mail's from home has been stolen.«

»They found a sheriff at the opium house. He's the best customer.«

»I say one thing about my brother. He always makes friends the law enforcement. You know what I mean?« Worker replying: »It's happened before, and it will happen again. I'm sure.«

The quotes show that the workers have to risk their physical integrity for little money in order to feed themselves and their families. This is exemplified in *»Steel pipe fell on one of the railroad workers today. May lose arm.«* or in response to *»Hard to complain on a day like this.«* (Guard) *»I don't notice anymore.«* (Worker). It becomes clear that the integrity of the workers is irrelevant and is accepted as collateral damage for the completion of the railway. Herein lies an interchangeability of the individual worker as a commodity, labour power.

Historical Context

Historically, the Central Union Railroad Camp is based on the first transcontinental railroad in the USA which was built between 1863 and 1869.
The Western part of the transcontinental railroad around Sierra Nevada was laid by 15,000 to 20,000 Chinese migrants (Shashkevich, 2019). Being paid not even half of the wages as the white workers, 3,000 Chinese workers went on strike in 1867 demanding equal pay, shorter workdays, and better working conditions. This work stoppage was the largest labor action in the country at that time (Fuchs, 2017).

The Central Union Railroad Camp is an accurate visual representation, particularly when compared to historical photographs. However, the scenery lacks sufficient detail to make references to actual events. The Cantonese workers are NPCs working in endless loops of hammering or resting in the camp. The fragmentary conversations of the NPCs show an awareness of the exploitative conditions, which is expressed, for example,

by »*They better pay us. We're ready to work here.*« or in response to »*Hard to complain on a day like this.*« »*I don't notice anymore.*« The statements reveal burgeoning resentment, but the game does not allow for the further development of collective action. Instead, the workers remain in a circular state between work and rest. They are portrayed as interchangeable and dispensable, their lives reduced to the value of their labour, as tools in the service of capital.

Figure 4: Alfred A. Hart Photographs, Department of Special Collections, Stanford University Libraries (1862–1869) Workers lay track along the Ten Mile Canyon stretch of the Transcontinental Railroad

The Miners in Annesburg

The mining town Annesburg is positioned in New Hanover on the banks of the Lannahechee River in the region of Roanoke Ridge all the way in the northeast of the map. It was »*established by German settlers who discovered the rich coal seams in the surrounding hills. The surrounding countryside and waterways are sooty and polluted from the mining operations which have been running for almost a century*« (Red Dead Redemption 2, 2018).

In addition to a few side missions, Annesburg is visited at the end of the fifth chapter at the latest and explored for most of the time during the sixth chapter. This is also where the main story of Arthur Morgan ends, before a time and character change takes place in two subsequent epilogues.
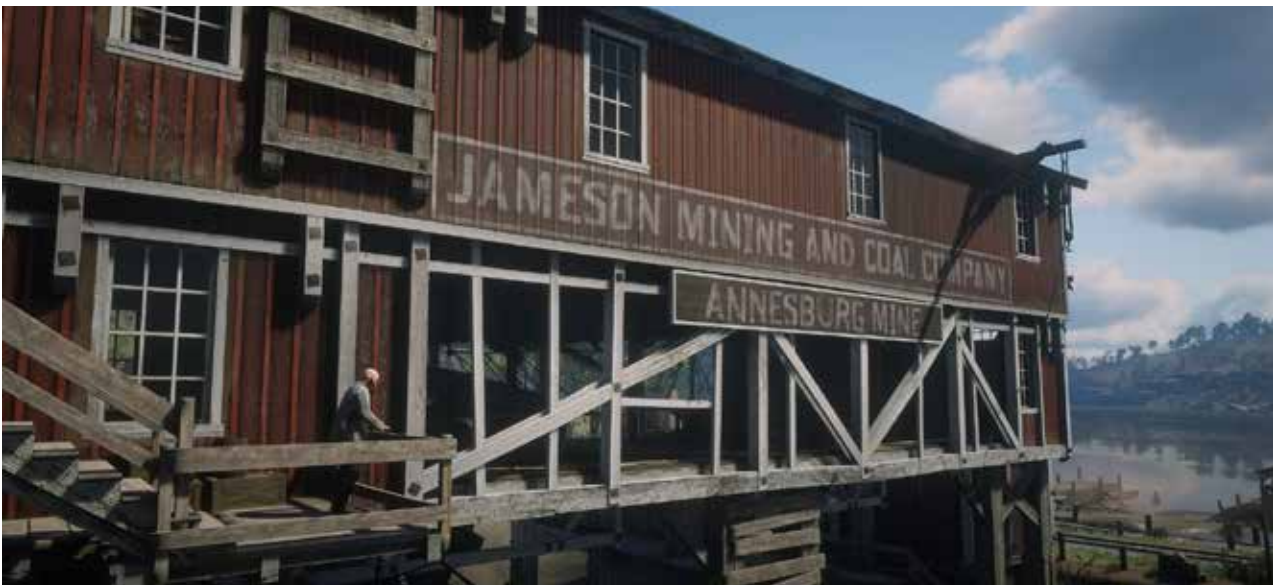
Annesburg has a complex infrastructure. In the mine the coal is dismantled and shovelled into mine-carts, which are then loaded onto train wagons via conveyor chains and transported away. At first glance, I was fascinated by the complexity of the scene: in addition to the production chain, I can find a train station, a post office, various residential buildings with families and workers, and the interweaving of the buildings stretching across the slope was exciting to explore. On closer inspection, however, the recurring moments and errors in the production chain become clear.

For example, the oncoming train driver waits endlessly for the train track to be cleared by the ever filling goods train. However, the train keeps moving forwards and backwards as soon as one of the wagons is supposedly full. One worker carries long wooden planks from the upper to the lower store, while another drags them back up from below. Again and again, their paths cross and they get in each other's way. For several minutes I followed a miner who first walked through the town with his broom until he threw it onto a mound of dirt and disappeared again.

When I made it into the mine, which can be entered through two secret entries to avoid the guards, I came across 3 miners hammering on the wall endlessly while two people loaded what they thought was mined coal into wagons. However, as they turned their shovels to drop the coal, they paused and froze in that position for what felt like an eternity. At the front of the mine, I came across a man who constantly looked at the boxes in front of him and then returned to his notebook, while three men in the area above leaned against a pillar or sat on a bench and smoked.

On my second visit to the mine, I expected a similar scenario, but was surprised. There are significantly more workers in the mine

during the day, but this does not necessarily mean that more of them are working. Many of them stand around, smoke, sit on the floor, or walk around. If you get too close to them while observing, they quickly start moving as if you had caught them doing nothing. When I tried to observe a miner shoveling up coal that had already been removed, he remained in a crouched position. We kept glancing at each other, but he seemed to stare for minutes on end.

Despite long periods of observation, no one speaks in the mine. Only when I bumped into one of the miners or moved in a creeping manner and my strange behaviour was commented on as *»There's really something wrong with you!«.*

Besides observing the miners myself there are various newspapers that can be purchased at different locations throughout the game. They not only provide players with cheat codes, but each issue also contains several articles on the latest news in the game world. The 68th issue of Blackwater Ledge contains an article about resentment caused by an accident at the mine in Annesburg.

> »A HABIT AT THE MINE.
> WORKERS CALL FOR HIGHER PAY.
> OWNER SAYS MINE UNPROFITABLE.
>
> *It appears from dispatches that workers at the coal mine in the town of Annesburg are asking for twenty cents on the ton over the cost of mining it. Workers say decent wages should be paid to the men who toil to mine the coal. Controversial mine owner Archibald Jameson has long argued that the mine is easily worked as there are immense stores of clear coal at very shallow depths. He says based on national market conditions he and other mine owners in the country have made almost nothing in profit for four years, in spite of substantial outlays. A common gripe of the workers is that conditions of the Annesburg mine are exceedingly dangerous and that Jameson is a carpetbagger who moved to the area and has long been exploiting the land and people. Jameson has stated repeatedly that he is one of the largest, most generous employers in the area and that workers' organizations have always been responsible for their own safety measures.«* (to, C., 2025b)

Figure 5: Cyanide3 (2022) Blackwater Ledger No. 68.

The topic of workers' strikes and collective organisation is addressed very explicitly here. The inadequate safety precautions can be sensed in individual details in the mine. There are traces of blood on the handle of a shovel, and I keep seeing miners stretching their tensed bodies.

Archibald Jameson, a wealthy businessman and owner of the Jameson Mining and Coal Company, is portrayed as a self-made industrialist. On the one hand, he exploits his workers, but at the same time claims that the mine is no longer profitable. By portraying individual stories and no collective resistance, the idea that workers are powerless against the forces of capital is reinforced, a narrative that is consistent with the broader ideological framework of the game.

Historical Context

During the 1890s company towns to which coal towns like the fictional Annesburg in *Red Dead Redemption* 2 also count, were a popular phenomenon that often existed in the East, Midwest and Upper South of the USA. In a remote location from urban centres and as a pragmatic solution, the town was built as a company headquarters where a single company owns all the buildings and businesses.

Even during my first observation, a clear distribution of roles can be recognised. While male NPCs perform heavy physical labour, women in Annesburg are primarily engaged in reproductive activities like care and housework. An example is the story of Edith Downes, a supporting character who appears repeatedly throughout the game. Due to financial difficulties, she starts working as a prostitute, first in Saint Denise and later in Annesburg. This is certainly a reality of life in which women were trapped in the 19th and 20th centuries, but it only tells part of the story.

Historically, women also played an important role in mining in the 19th and early 20th centuries. While women were also active in underground mining in Europe (Romano, Papastefanaki, 2020), in the USA tradition, cultural constraints and resistance from employers limited women's opportunities in mining. Nevertheless, in the 1860s, women were active in the extraction and processing of coal as prospectors, ore processors, miners, managers and mine operators. As »*pitmen*«, they financed the costs of prospecting, which gave them a stake in the mine. One of the largest mines in the USA was discovered by Mrs. Robert K. Reid in Bingham Canyon, Utah in 1863. It was not until the 1960s that

laws were introduced to prevent people from being systematically marginalised on the basis of their ethnicity or gender (Armstrong, 2022).

Annesburg is an example of the contradictions of industrial capitalism. The town's infrastructure appears progressive, but is built on the exploitation of the workers. The repetitive and meaningless tasks of the miners reflect Karl Marx's theory of alienation (1844), in which workers are disconnected from the purpose and value of their work. In addition, the role of women is limited to reproductive work and prostitution, which portrays one reality of women's lives in the 19th century, but falsely reinforces the narrative that women were not an essential part of the labour market. If Archibald Jameson had been depicted as a woman, this would probably have provoked the suspicion of an unrealistic portrayal.

When analysing the depiction of work and trade unions and the extent to which this influences our perception of social realities, the Central Union Railroad Camp and the mine in Annesburg reveal a recurring visual representation and narrative. The detailed game world is aimed more at the effect of immersion and emotional involvement. It is about creating a nostalgic feeling that

Figure 6: Workers at Blaennant Pit (Mountain Colliery) includes women and children

resonates with our world of experience and creates a magical world around us. However, on closer inspection and through active reading and listening, the content that is conveyed becomes visible. For example, the employees' complaints are portrayed as isolated and unsolvable, which can be seen in the transcribed conversations and statements as well as in the newspaper article. As a result, the game reinforces the idea that capitalism is an unchangeable system that cannot be questioned or changed. The idea that capitalism is a natural law of social relations is still widespread today. Although emancipatory struggles, feminist, anti-racist and labour movements have led to the participation of women in the US labour market, their right to vote, the 8-hour work day and the end of slavery in the USA. The erasing of these labour struggles not only reflect the socio-political discourses of the 19th century, but also today's 21st century ideologies in which these games are produced.

Figure 7: W. Clayton (n.d.) Pit workers/lasses

Level 03
Realization

The elaborate game world I immersed myself in is the result of creative and technical labour performed under exploitative conditions. *Red Dead Redemption 2* took 7 years to develop and is celebrated for its immersive and detailed world. Vicky Osterweil, a writer, editor, and agitator, writes in her monthly column, *Well Played*, about the role of video games in reproducing society, transforming ideology, and their reflection and shaping of capitalism's development. She describes how this attention to detail is produced at the expense of video game developers.

> *»In enjoying the detail and minutiae in open-world games we are consuming the miserable labor conditions that produce them.«* (Osterweil, 2019a)

Companies like Rockstar Games, Ubisoft or Electronic Arts are dominant game publishers, which makes them an ideological foundation of the video game industry. In relation to this Osterweil (2018a) writes how automation, globalisation and financialisation processes constantly change jobs and job models, forcing employees into precarious employment and putting them at greater economic risk as individuals. I see a similarity between the endlessly labouring NPCs and the video game developers, engineers, artists and designers who produce these games. I will give a brief outline of the working conditions in video game production and the recent emergence of trade unions. To conclude I will draw parallels and show the frictions as well as what happens when the lines between real and realistic blurr.

Crunch Culture

The conditions in which games are developed often require un-
paid overtime and high pressure. This phenomenon persists de-
spite the heavy burden on developers and creatives. In *›Week-
ends became something other people did‹: Understanding and
intervening in the habitus of video game crunch* by the research-
ers Cote and Harris (2020) »*Crunch*« is defined as the period of
unpaid overtime used to accelerate slow-moving projects. De-
spite being aware of the working conditions, crunch is seen as
inevitable and necessary. It has not only an individual but also a
systemic effect, in which many artists, engineers, programmers
and designers leave the game industry after 3 to 9 years (p. 4). In
their study, they analysed testimonials from game developers in
Game Developer magazine (p. 7) and found that one of the most
frequently cited reasons was the passionate and ambitious work
ethic of many game developers. No matter how many extra shifts
or additional tasks had to be done, there seems to be an immate-
rial reward of being part of a game production (p. 12-13).

The intangible value of being part of video game development
is used by the games industry to justify crunch and turn what
should be a collective problem into an individual one. This is by
no means a unique selling point of triple-A studios.

Indie games make up the majority of games on the market. For
many, they mean freedom in design, but only a few games man-
age to keep up with the competitive games market. These suc-
cess stories are often associated with hard work that has paid
off. However, this glosses over the fact that everyone works hard
and this is no guarantee of a game's success. Indie studios, which
often have limited resources both in terms of production and
financing, are also forced to work overtime, with the difference
that they are in charge of themselves. For example, in the doc-
umentary *Crunch* (2025), game developers and creatives share
their experiences from the indie game scene and triple-A stu-
dios. 3D artist Jules Noel talks about overtime, mental stress,
harassment, toxic and violent behaviour at Ubisoft in France.
Hanna Steinhauer, co-founder of the German indie games com-
pany *Spoonful Games* in Cologne, talks about sexual assault and
knockout drops at networking events and games fairs as well as
co-founding an indie studio to create a save space for her and
her employees.

These examples are not isolated cases, rather they are representative of a systemic problem. In recent years, these problems have become increasingly publicised. Growing uncertainty has spread in connection with large-scale redundancies and the closure of video game studios.

Unionisation in Video Game Development

In 2024 241 developers including artists, engineers, programmers and designers at Bethesda Game Studios formed the first »wall-to-wall union« at Microsoft. After Microsoft laid off 1,900 employees and the large Zenimax studios were closed, the union formed as a counter-reaction and was directly recognised by Microsoft. It became part of the largest union in the communications and media sector in the USA, the Communications Workers of America (CWA) (Kerr, 2024a).

A similar movement can also be seen in the UK, where the IWGB Game Workers has now grown to 1,500 members (Kerr, 2024b). In their manifesto, they define 5 central pillars: democracy, solidarity and care, take action, education, equality and justice (IWGB Game Worker, 2024).

Figure 8: Twitter @ ZeniMaxWorkers (13 Nov. 2024) ZeniMax employees strike in Austin, TX.

The harassing, toxic and violent environment at Ubisoft France led to increased accusations on social media and the dismissal of several senior executives in 2020. Three of the former top executives now went on trial on March 10th 2025, accused of psychologically and sexually harassing employees for nearly a decade. An internal survey administered by Ubisoft revealed that approximately 25% of its employees had been victims of professional misconduct or were witnesses to it (Le Monde, AFP, 2025).

These examples show a development towards collective resistance and the need for agency. The individualising logic of capitalism is being counteracted in order to address systemic inequalities and exploitative practices. Vicky Osterweil (2019a) goes even further in All Work and All Play and says that »*[a] truly revolutionary transformation of video games would require organization among and across the entire global supply chain, a task no movement has yet cracked*«.

Tensions Between Narrative and Practice

Both *Red Dead Redemption* 2 and the video game industry are characterised by resentment and emerging counter-movements in the form of protests and the formation of trade unions. Whether the NPCs in the Central Union Railroad Camp or Annesburg it is no coincidence that the narrative of precarious working conditions is also used in video game worlds. In fact, game productions that reproduce hegemonic values attract more attention. Osterweil argues that this conformity makes the game seem accessible, relevant and realistic, while reproducing the values that capitalism demands (2018c).

> »*To perpetuate their own existence, mass media must succeed at representing the violent coercion of capitalist systems as natural laws: Of course you have to pay rent to live inside; of course you have to buy food to eat; of course you have to work if you want to survive.*« (Osterweil, 2018a)

In capitalism, we are told to behave in constant competition with one another, which manifests the idea that everyone is on their own as an individual. In video games like *Red Dead Redemption* 2, the classic role of the hero or underdog is assumed, the feeling of seemingly being able to determine the course of the action, the feeling of control and power. As a result, the video game becomes a refuge for one's own powerlessness in the face of the bourgeois-capitalist contradictions of reality, while the individual player tries to defend himself heroically and yet individually.

Because video games reveal the omnipresence of socially hegemonic notions of labour, the omnipresence of these ideological images must be negotiated beyond the game — at all social and socio-political levels. In this context, trade union struggles prove to be a means of exerting pressure to improve working conditions. However, trade unions do not fundamentally question labour, but rather focus on the conditions under which it takes place and how these can be partially improved. What is needed is systemic political and social change that goes beyond, that questions current working conditions, criticises the mechanics of capitalism as well as offers alternatives.

This level shows that the narratives of exploitation and oppression used in games work, as they become a refuge for players from their own powerlessness and convey a sense of apparent power. At the same time, systemic problems such as crunch, precarious employment and a toxic work environment are revealed to be behind the production. Recent union organising and court cases signal a growing resistance, collectively standing against the individualised logic of capitalism to exert pressure. Yet the critique must go beyond the status quo and fundamentally question the mechanisms of capitalism to create sustainable alternatives for all.

Figure 9: PCRed-Dead (2021) Workers against strikebreakers at E.F. Pencil Company. Red Dead Redemption 2.

Conclusion

When I started playing *Red Dead Redemption 2*, focusing on the portrayal of labour and trade unions, I quickly realised that I was taking on a different perspective while playing.

Throughout the thesis I have investigated how the visual and narrative design of video games affect the perception of social realities - especially in relation to labour and trade unions. The example of *Red Dead Redemption 2* shows how the boundaries between real and realistic become blurred, enabling reflection while at the same time reinforcing hegemonic notions.

In »*Real*« I have shown that the game mechanics create a set of rules that contain implicit rhetoric. This also shapes our perception of social, political and economic realities by presenting capitalist logic as natural and unchangeable. Here I have extended the effect of pervasive games to RPGs, as they create a connection to our real world through increasingly graphically sophisticated game worlds as well as narratives that create a depth, realism and sense of omnipresence. The more seamlessly this change happens, the more consistent and convincing this game world appears and the more blurred the boundaries between reality and fiction become.

The second level »*Realistic*«, where I analyse the representation of labour using the example of the Central Union Railroad Camp and the mine in Annesburgs, has shown that the NPCs are portrayed as interchangeable and dispensable. Their value is reduced to their labour, as tools in the service of capital. The conversations in the Central Union Railroad Camp show the vulnerable position of the workers, in which physical and psychological

injuries are accepted as collateral damage. This representation reinforces the assumption that workers are powerless against the forces of capital and that capitalism is an immutable system that cannot be challenged or changed. Annesburg also shows a one-sided perspective on women, depicting them primarily in reproductive activities or prostitution. It falsely reinforces the narrative that women are not an essential part of the labour market. This conveys an image of social powerlessness that is at odds with the historical reality of emancipation movements.

The reproduction of hegemonic values in role-playing games like *Red Dead Redemption 2* reflects the conditions under which video games are produced. In the last level »*Realization*«, the parallels between the NPCs who work in endless loops and the game developers, engineers, artists and designers who implement these games under precarious employment, toxic working conditions and systematic exploitation become visible. The intangible value of being part of a video game development is used to legitimise crunch and present what is actually a collective problem as an individual one. In constant competition with each other, each one on their own, the video game becomes a refuge for one's own powerlessness in the face of the bourgeois-capitalist contradictions of reality. The player tries to defend himself heroically and yet fights alone.

Video games are more than entertainment — they are cultural artefacts that shape and reinforce social norms and ideologies. Highlighting and criticising these issues leads to understanding the mechanisms behind them and reflecting on the influence they have on us. Above all, it helps not to lose oneself in the feeling of powerlessness, but to become aware of this and to seek changes in the system rather than in the individual. I think a medium that is so omnipresent in our society, requires a discourse that critically scrutinises this and to which I want to contribute beyond this work.

Bibliography

Aarseth, E., Günzel, S. (Eds.) (2019). *Ludotopia: Spaces, Places and Territories in Computer Games*. 1st ed, Edition Medienwissenschaft. transcript Verlag, Bielefeld, Germany. https://doi.org/10.14361/9783839447307

Armstrong, H. (2022). *A Brief History of Women in Mining*. [online] DOL Blog. Available at: https://blog.dol.gov/2022/03/22/a-brief-history-of-women-in-mining.

Bakalar, J. (2018). *Red Dead Redemption 2 review: An incredible Western that will deliver months of open-world adventure*. [online] CNET. Available at: https://www.cnet.com/reviews/red-dead-redemption-2-review/.

Birken, J. (2022). *Videospiele Digitale Bildkulturen*. Verlag Klaus Wagenbach, Berlin.

Bogost, I. (2007). *Persuasive games: the expressive power of videogames*. MIT Press, Cambridge, MA.

Bohnsack, R. (2011) *Qualitative Bild- und Videointerpretation*. 2. Edition. Opladen: Verlag Barbara Budrich. ISBN 978-3-8252-8482-4.

Communications Workers of America. (2016). *CWA History*. [online] Available at: https://cwa-union.org/about/cwa-history.

Crunch - Traum und Albtraum in der Gaming-Industrie (2025). Directed by Mariska Lief. Germany: Südwestrundfunk.

Fuhrer, M. (2023). *Dancers and Video Game Characters Merge in the Uncanny Valley*. The New York Times. [online] 6 Oct. Available at: https://www.nytimes.com/2023/10/06/arts/dance/tiktok-dancers-imitating-video-game-characters.html?smid=url-share#.

HowLongToBeat (n.d.). *How long is Red Dead Redemption 2?*. [online] Available at: https://howlongtobeat.com/game/27100.

Huizinga, J. (1950). *Homo Ludens A Study of the play-element in culture*. The Beacon Press, Boston.

IWGB Game Workers (2024). *IWGB Game Workers Union Manifesto*. [online] Available at: https://www.gameworkers.co.uk/manifesto/ [Accessed 2 Nov. 2024].

KCRA 3 (2024). RETRO FIND: *The high cost of High Definition TVs*. [online] YouTube. Available at: https://www.youtube.com/watch?v=UYDpNbP-eY4 [Accessed 31 Jan. 2025].

Kerr, C. (2024a). *Bethesda Game Studios workers form 'wall-to-wall union' at Microsoft*. [online] Gamedeveloper.com. Available at: https://www.gamedeveloper.com/production/bethesda-game-studios-form-wall-to-wall-union-at-microsoft [Accessed 2 Nov. 2024].

Kerr, C. (2024b). *UK union IWGB Game Workers launches manifesto after topping 1,500 members*. [online] Gamedeveloper. com. Available at: https://www.game-developer.com/production/uk-union-iwgb-game-workers-launches-manifesto-after-topping-1-500-members [Accessed 2 Nov. 2024].

Klengel, R., Müller, L. (2024). *Die digitale Masse - NPC, sozial Chiffre und Autonomiebestrebung*. In: Recherchen 171: Nebenfiguren (11/2024). Theater der Zeit.

Klengel, R., Müllner, L., Stumpf, M. and Windisch-Graetz, F.-J. (n.d.). *Im Spiegelkabinett des Hyperrealismus: Los Santos als spätkapitalistisches Simulakrum*. Totally Pretentious -die pseudomarxistische Gaming-Kolumne (MALMOE Magazin). [online] Available at: https://totalrefusal.com/media/pages/publications/im-spiegelkabinett-des-hyperrealismus/2e2f37ff42-1631446532/malmoe_im-spiegelkabinett-des-hyperrealismus.pdf [Accessed 31 Jan. 2025].

Le Monde, AFP (2025). *Trial of former Ubisoft bosses in France adjourned until June*. [online] Le Monde.fr. Available at: https://www.lemonde.fr/en/police-and-justice/article/2025/03/10/former-ubisoft-bosses-on-trial-in-france-over-alleged-harassment_6738996_105.html.

MacDonald, K. (2018). *Red Dead Redemption 2 review – gripping western is a near miracle*. [online] the Guardian. Available at: https://www.theguardian.com/games/2018/oct/25/red-dead-redemption-2-review-western-playstation-xbox-rockstar.

Marx, K., Engles, F. (1844). *Ökonomisch-philosophische Manuskripte*. Part 1 (p. 465-588). [online] URL: https://www.marxists.org/deutsch/archiv/marx-engels/1844/oek-phil/index.htm

Nieuwdorp, E. (2005). *The Pervasive Interface: Tracing the Magic Circle*. In: Proceedings of DiGRA 2005 Conference: Changing Views – Worlds in Play.

Osterweil, V. (2018a). *Well Played*. Real Life. [online]. Available at: https://reallifemag.com/well-played/ (Accessed 8 Jan. 2025)

Osterweil, V. (2018b). *Well Played: Passive Attack*. Real Life. [online]. Available at: https://reallifemag.com/well-played-

passive-attack/ (Accessed 8 Jan. 2025)

Osterweil, V. (2018c). *Well Played: Battle Royal*. Real Life. [online]. Available at: https://reallifemag.com/well-played-battle-royale/ (Accessed 8 Jan. 2025)

Osterweil, V. (2019a). *All Work and All Play*. Real Life. [online]. Available at: https://reallifemag.com/well-played-all-work-and-all-play/ (Accessed 8 Jan. 2025)

Osterweil, V. (2019b). *Game Boys. Real Life*. [online]. https://reallifemag.com/well-played-game-boys/ (Accessed 8 Jan. 2025)

Red Dead Redemption 2 (2018). Steam. Rockstar Games. New York.

Reddit.com. (2025). *Reddit - Dive into anything*. [online] Available at: https://www.reddit.com/r/reddeadredemption/comments/1fjmluw/how_many_hours_do_you_guys_have/?show=original [Accessed 3 Mar. 2025].

Rockstar Games (2018). *Red Dead Redemption 2*. [online] Rockstar Games. Available at: https://www.rockstargames.com/reddeadredemption2.

Rogers, R. (2016). *How Video Games Impact Players: The Pitfalls and Benefits of a Gaming Society*. Lanham: Lexington.

Romano R.B., Papastefanaki L. (2020) *Women and Gender in the Mines: Challenging Masculinity Through History: An Introduction. International Review of Social History*. 2020;65(2):191-230. doi:10.1017/S0020859019000774

Salen, K., Zimmerman, E. (2004). *Rules of Play: Game Design Fundamentals*. MIT Press. Cambridge MA/London.

Schubert, S. (2018). *Dystopia in the Skies: Negotiating Justice and Morality on Screen in the Video Game BioShock Infinite*. ejas. https://doi.org/10.4000/ejas.14089

Steinberg, S. (2007). *The definitive Guide: Videogame Marketing and PR (1st ed.)*. iUniverse. ISBN 978-0-59543-371-1.

Stokel-Walker, C. (2023). *The 'NPC' Livestream TikTok Trend Helping Creators Earn Cash*. [online] www.bbc.com. Available at: https://www.bbc.com/worklife/article/20230811-the-npc-livestream-tiktok-trend-helping-creators-earn-cash.

to, C. (2025a). *Annesburg*. [online] Red Dead Wiki. Available at: https://reddead. fandom.com/wiki/Annesburg [Accessed 18 Jan. 2025].

to, C. (2025b). *Blackwater Ledger No. 68*. [online] Red Dead Wiki. Available at: https://reddead.fandom.com/wiki/ Blackwater_Ledger_No._68 [Accessed 7 Feb. 2025].

Total Refusal (2022a). *Of Labour and Videogames in Art*. GRINDFEST. Available at: https://www.instagram.com/p/CcK-1KJiMi3Z/?img_index=9 [Accessed 22 Nov. 2024].

Ubisoft (2015). *Assassin's Creed Syndicate World Premiere [EUROPE]*. [online] YouTube. Available at: https://www.youtube. com/watch?v=wS9dtHCyceE [Accessed 18 Feb. 2025].

Images

Figure 1: Rockstar Games (n.d.). *Los Santos Grand Theft Auto* V. [online] Available at: https://www.rockstargames.com/gta-v (Accessed 14 Mar. 2025)

Figure 2: Julian Smith/European Press-photo Agency (n.d.). *A person plays with Pokemon Go on a smartphone in Melbourne, Victoria, Australia.* [online] Available at: https://www.wsj.com/articles/pokemon-go-launches-in-europe-1468439701 (Accessed 14 Mar. 2025)

Figure 3: Mapsland.com. (n.d.). *Large detailed map of Red Dead Redemption 2 World.* [online] Available at: https://www.mapsland.com/games/large-detailed-map-of-red-dead-redemption-2-world [Accessed 18 Feb. 2025].

Figure 4: Alfred A. Hart Photographs, Department of Special Collections, Stanford University Libraries (1862-1869) *Workers lay track along the Ten Mile Canyon stretch of the Transcontinental Railroad.*

Figure 5: Cyanide3 (2022). *Blackwater Ledger No.* 68. Available at: https://red-dead.fandom.com/wiki/Blackwater_Ledger_No._68?file=Blackwater_Ledger_No._68.png [Accessed 7 Feb. 2025].

Figure 6: Clayton, W. (n.d.) *Pit workers/lasses.* Cyfarthfa Museum. Tredegar. Available at: https://cynonvalleymuseum.wales/2021/12/07/women-in-the-mines/ [Accessed 19 Feb. 2025]

Figure 7: Clayton, W. (n.d.) *Workers at Blaennant Pit (Mountain Colliery) – includes women and children.* RCT Library and Archive Services. Available at: https://cynonvalleymuseum.wales/2021/12/07/women-in-the-mines/ [Accessed 19 Feb. 2025]

Figure 8: Twitter @ZeniMaxWorkers (13 Nov. 2024) *ZeniMax employees strike in Austin, TX.* [online] Available at: https://xboxera.com/2024/11/13/zenimax-union-workers-strike-today-regarding-quality-assurance-and-remote-work-policies/ (Accessed 14 Mar. 2025)

Figure 9: PCRedDead (2021) *Workers against strikebreakers at E.F. Pencil Company.* Red Dead Redemption 2. [online] Available at: https://www.reddit.com/r/PCRedDead/comments/uhdlnk/workers_against_strikebreakers_designed_using_all/ (Accessed 14 Mar. 2025)

Colophon

This work has been produced in the context of the graduation research of Bernadette Geiger from the *Experimental Publishing (XPUB)* Master course at the Piet Zwart Institute, Willem de Kooning Academy, Rotterdam University of Applied Sciences.

XPUB is a two year Master of Arts in Fine Art and Design that focuses on the intents, means and consequences of making things public and creating publics in the age of post-digital networks.

https://xpub.nl

This publication is based on the graduation thesis *Between Real and Realistic*, written under the supervision of Marloes de Valk.