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Digital Games and Allegorithmic Work:

The Politics of Exchange,
Alienation and Performative
Ideology

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The first chapter of this thesis is an expanded version of my paper, which was originally published in the proceedings of DiGRA 2023. The research on democratic agency in Chapter Two includes parts of our ongoing research on democratic agency in digital games with Gabriela Štvrťňová (Štvrťňová and Hauer forthcoming), and it was presented at the SFRA 2024, CEEGS 2024, and ARSGAMES 2024 conferences. The case study on Elden Ring includes parts of our ongoing research on ideology of temporal game economies with Ondřej Trhoň (Trhoň and Hauer forthcoming).

I declare that I have prepared this thesis independently and referenced all used sources. The AI assistants, *Paperpal* and *DeepL*, were used solely as editing and translation tools.

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Filip

ABSTRACT

This dissertation undertakes two primary tasks. Firstly, it examines market, ideological, and extractivist stereotypes in exchange of player labour for game progress, and employs them as analytical lenses to formulate a conceptual framework for critical game design and art. Secondly, based upon an analysis of capitalist allegories in selected games, it provides a definition of problematic capitalist, authoritarian, colonial, and extractive tendencies in both mainstream games and games with critical aspirations. This framework has normative ambitions and investigates methods for designing speculative and critical games. To this end, it formulates a three-level analytic heuristic framework oriented toward game exchange, alienation, and performative player agency. The dissertation argues that games are artistic media capable of articulating a narrative and a procedural critique of economic and social systems in a dynamic dialogue with players. However, to achieve this, a critical analysis should first be conducted on both narrative and procedural levels within the exchange, alienation, and player agency frameworks. In this regard, it is necessary to consider the forms of meaningful player agency within any given game design to be restrictive game affordances – game options to act within game market institutions, game rules, and narrative allegories – that will result in either a lack of speculative game mechanics or abundance of ideological fantasies. The question of the mode of player agency is largely connected to game economies, allegories of alienation in player labour, as well as to the degree of power players wield in each game, whether their agency is hegemonic in the game world, or whether there is a degree of agency shared with other actors.

The first chapter discusses forms of exchange in strategy games and draws a framework for the analysis of game ideologies based on their economies. The second chapter discusses the framework of game allegories of alienation in capitalism, strategies working with alienation in arts as well as in critical games and draws out the possibilities for critical design strategies based on them. The third chapter discusses forms of shared agency, performativity, and troubled utopia, as the possibilities of an alternative to game ideological stereotypes. The fourth chapter proposes a three-level heuristic framework and critical design principles for alienated game exchange. This dissertation was conducted in the context of artistic research and game studies. The game art projects that accompanied theoretical research with artist research affordances are discussed in the concluding sections.

KEYWORDS

Games, game exchange, alienation, performativity, ideology, inner game markets, game work & labour, capitalism, game economies, speculative mechanics, critical games, game art, critical design, algorithms, ecogames, game studies, artistic research

ABSTRAKT

Tato disertační práce si klade dvě hlavní úlohy. Za prvé zkoumá tržní, ideologické a extraktivní stereotypy při směně hráčské práce za postup ve hře a využívá je jako analytickou perspektivu pro formulaci pojmového rámce pro kritický herní design a herní umění. Za druhé, na základě analýzy alegorií kapitalismu ve vybraných hrách poskytuje definici problematických kapitalistických, autoritářských, koloniálních a extraktivistických tendencí jak v mainstreamových hrách, tak ve hrách s kritickými aspiracemi. Tento rámec má normativní ambice a zkoumá metody pro navrhování spekulativních a kritických her. Za tímto účelem formuluje tříúrovňový heuristický analytický rámec orientovaný na herní směnu, odcizení a performativní jednání hráčstva. Disertační práce tvrdí, že hry jsou uměleckým médiem schopným artikulovat narativ a procedurální kritiku ekonomických a sociálních systémů v dynamickém dialogu s hráči. Abychom takového kritického potenciálu dosáhli, musí být nejprve provedena kritická analýza na narativní i procedurální úrovni v rámci herní směny, odcizení a jednání hráčstva. V tomto ohledu je nezbytné považovat formy smysluplného jednání v rámci daného herního designu za restriktivní herní možnosti – neboli herní prostředky jednat v rámci institucí herního trhu, herních pravidel a narativních alegorií – mající za následek buď nedostatek spekulativních herních mechanismů, nebo převahu ideologických fantazií. Otázka způsobu jednání hráčstva je do značné míry spojena s herní ekonomikou, alegoriemi odcizení v herní práci, stejně jako s mírou hráčské moci v dané hře: Zda je jednání hráčstva v herním světě hegemonické, nebo jestli existuje určitá míra jednání sdílená s ostatním aktérstvím.

První kapitola se zaměřuje na formy směny ve strategických hrách a vymezuje rámec pro analýzu herních ideologií na základě jejich ekonomik. Druhá kapitola pojednává o rámci herních alegorií odcizení v kapitalismu, strategiích pracujících s odcizením v umění a v kritických hrách. Následně nastiňuje možnosti strategií kritického designu na základě takového rámce. Třetí kapitola pojednává o formách sdíleného jednání, performativity a neklidných utopiích, jako alternativě k ideologickým herním stereotypům. Čtvrtá kapitola představuje tříúrovňový heuristický rámec a principy pro design kritických her v rámci odcizené herní směny. V závěrečných oddílech jsou diskutovány herní projekty, které doprovázely teoretický výzkum s prostředky uměleckého výzkumu.

KLÍČOVÁ SLOVA

Hry, herní směna, odcizení, performativita, ideologie, vnitřní herní trhy, herní práce, kapitalismus, herní ekonomiky, spekulativní mechaniky, kritické hry, herní umění, kritický design, alegority, eko-hry, herní studia, umělecký výzkum

Table of contents

Introduction: game work allegories.....	9
Early game studies: the Link between Play and Society	12
Game art and critical play	14
Playing ideology	15
Player agency and game economies	18
Games that change player attitudes	22
Following chapters	24
The scope	27
1. The Allegorithmic Politics of Game Exchange – Subversion, Ideology, and Capitalism in Strategy Games	29
Premises and method of analysis	30
The ideology of game exchange	33
Utopian exchange in Civilization VI	36
Negative exchange in Age of Empires II: Definitive Edition	39
Interfaces of ideology	42
Conclusion and strategies of alienation	43
2. Towards Alienated Game Exchange Theory: The Politics of Alienation and The Modes of Players Agency	45
Alienation	46
Objective alienation in Death Stranding	48
Xenofeminism and (alienated) games	50
Synthetic alienation and freedom in (alienated) games	50
Subjective alienation in Citizen Sleeper	51
Politics and strategies of alienated games	53
Brechtian and Situationist alienation strategies	54
Early game art - aesthetics and Alienation	56
Radical game design	59
Conclusions: What can alienated games be?	61
3. Performative Ideology: Player Agency, Code Fetishism, and Game Extractivism.....	62
Player Agency	62
Players' democratic agency – modes of positive and negative agency	63

Loving visiting	64
Positive and negative player agency: Ecogames vs. empire and extractivism	66
Agents of the empire	67
Negative player agency in colonialism re-enactment	69
Performative Ideology in Digital Games	69
Code fetishism	71
Player attitudes and democratic agency	72
Ecogames and player agency	73
Conclusions: Dismantling Colonial and Extractivist Game Narratives	75
4. Strategies for Critical Games: Beyond Extract and Exchange.....	79
A three-level heuristic framework	80
Alienated exchange and game design principles	82
Coda: Allegories of Player Labour	85
Where are all the speculative games?	87
A Case Study on <i>Lithium</i>.....	89
A Case study on <i>Frostpunk: The Last Autumn</i> and <i>Frostpunk 2</i>	93
A Case Study on <i>Elden Ring</i>.....	99
Notes on artistic research with <i>Dreaming About Work</i>, <i>Workers Out of Office</i> – <i>London DLC</i>, and <i>Lithium</i>.....	103
Artistic research	110
Dreaming about new agency	113
Index.....	115
Bibliography And Ludography	117

Introduction: game work allegories

Back in 2010, at level 80 with my Survival hunter flying around icy Northrend, I was playing the endgame of World of Warcraft: Wrath of the Lich King (2008) – a massively multiplayer online game that would allow millions of players at the time (and to this day) to wander around the fictional world of Azeroth, to accumulate character experience, equipment, or just beat enemies and bosses – I needed to join a game guild – an in-game group that would facilitate an endgame with organised groups of approximately 25 players that would join a voice chat server and play the game raids periodically in order to beat the game bosses together. This required a high level of organisation, for example an acceptance process, starting with a motivation letter followed by a position interview. I also created my first CV, detailing my prior game experience. Consequently, although I had initially intended World of Warcraft to be a leisure activity, it swiftly began to resemble modern-day corporate employment. After being accepted by the guild, playing turned into evening-to-evening foraging for herbs around the game map, supporting various guild activities and learning procedures to complete various tasks with my avatar in collaborative boss fights.

Why did I want to play something that strongly resembled a variety of forms of work when I could just unwind in the evening? What compels players, game designers, and artists to simulate job-like activities when playing and creating games? Such questions may also arise when playing the popular real-time strategy game *Age of Empires II: Definitive Edition* (2019), in which players act as feudal rulers of armies and economies locked in a conflict paradigm. Similarly, in the *Frostpunk* series (2018 – 2024), players assume the role of authoritarian managers representing the former British empire. In competitive multiplayer shooters, players can take on the roles of police officers, imperial soldiers, or insurgent fighters and terrorists. However, players also often perform working-class jobs and activities that are not usually considered exciting, such as foraging for herbs, delivering goods, assembling vehicles, and crafting various game objects. In role-playing games such as *Death Stranding* (2019, 2022) and *Citizen Sleeper* (2022), players directly assume the role of delivery couriers and manual labourers in order to question capitalist subjectivities. In action-oriented souls-like games such as *Elden Ring* (2022), players can take on the role of warriors struggling to accumulate and extract sufficient game currency and knowledge about the game systems or to acquire enough game skills to beat the bosses and progress through the game.

All these games have common economic principles in accumulation and exchange paradigms, and this list could continue indefinitely. The bottom line is that playing games can be viewed through a critical lens as a form of work. At first glance game work appears entertaining, and as highlighted in a critique by ecological games scholar Alenda Chang in a case study on farming games, we can see that game work tends to omit the alienating aspects of labour. The simulation stops “*short of accuracy when that entails alienating drudgery and demoralizing failure.*” (Chang 2019, 176). Considering the introductory example from *World of Warcraft*, game work cycles might alienate players as drudgery and failure might creep into the game simulation, resulting in pressure on player efficiency, improvement, and optimal gameplay. Game work can quickly become alienating or plain tiring cycles of labour that closely resemble work ethics and paradigms of employment under contemporary capitalism.

If we take such a perspective on digital games, rather than just viewing them as tools for entertainment or as uncritical and often conservative representations of reality, we can start to perceive games as a complex of cultural allegories and algorithmic

simulations where players participate in cycles of game labour in varying settings. Players can be uncritical workers in digital games merely playing to have fun after work, or even trying to improve game skills, and the endless cycles of game labour might become tedious or get in the way of taking pleasure in freely visiting game worlds. Moreover, we can adopt a critical or speculative perspective while playing and imagining different subjectivities, agencies, and futures. This perspective also sees game work, with hope for a speculative imagination of modes of exchange other than capitalist ones that can support ecological thinking and democratic futures within game procedural and narrative allegories. Seeing games as media that can use speculative algorithmic game rules, mechanics, and narratives, this dissertation will look for possible critical design approaches to game procedural systems and narratives that can be used for speculative art games and critical game analysis. For this, I use the perspective of games as allegories of work, exchange, and alienation under contemporary capitalism. The motivation for the following research and heuristic framework is the speculative possibilities of game mechanics in the face of capitalist economic narratives, along with an exercise for challenging and questioning the communicative practices commonly found in popular games.

I approach these from the perspective of an artist working with the medium of both digital and board games, as a critical game designer viewing games as a tool for participation in lively political discussions, and as a researcher in the context of game studies. I work in the game industry both independently and on popular projects, both of which make the question of speculative possibilities of games in the face of the fiction of capitalism critical for my daily design practice. Finally, since this dissertation originates at The Academy of Fine Arts in Prague in the studio of new media, I focus on digital games as a technology that has potential artistic qualities: being able to transfer critical thinking and viewpoints on various issues, as tools of speculative thinking, and potentially as artefacts in a critical dialogue with the rest of the new media environment.

This perspective gives me an open standpoint on the game medium that goes beyond the simple design value of games for entertainment, and views games as art without questioning their formal aspects or contesting their place alongside the rest of the new media art niche, such as installation, video, or performance. My position at The Academy of Fine Arts provided me with an infrastructure that makes it possible to conceive this dissertation not only at the level of theory but also with the tools for artistic research into the design possibilities of games with practical methods and case studies. In this dissertation, a series of digital games have guided me through the research questions, with the possibility of testing them within gallery installations and in discussions with my peers, visitors, co-authors, contributors, and players. My art projects have dealt with themes of game exchange, alienation within contemporary labour, and the performativity of ideology.

In this reading of digital games as both art and tools for entertainment, games play a political role in society. They are allegories that allow lying and deception, but also allow the exploration of new ideas and realities, which is therefore certainly not a purely negative perspective on games. Allegories, meanings requiring interpretation, as understood by the Marxist literary critic and theoretician Fredric Jameson, are elusive concepts that are inherently connected to ideology, as they convey views and statements over the real world. For Jameson, the central obstacle for identifying the role of ideology in cultural allegories (within art or culture in general, including digital games), is the false *“conviction that there are areas of life, areas of activity as well as of thought, which are non-ideological.”* (Allegory and Ideology 2019, ix) Considering games and especially game work, allegory is crucial to understanding game action – it is ultimately just a set of game rules describing part of reality, and at the same time it

is crucial in order to understand the opposite direction of preconceptions about work – largely connected to contemporary stereotypes about work – that construct game ideology. Ideology, understood further within Marxist terms as a set of false beliefs promoted by the ruling class in the face of labour and climate crises, should be key to understanding the relationship between games and reality (our daily life after work, but also the politics of work itself). Allegories in digital games are situated between procedural and narrative and, as such, also represent a key perspective on software ideology.

According to Alexander Galloway, allegory as *an extended metaphor* for digital games should be changed to *enacted metaphors*, as games are in a sense actionable media that work through *the realism of action* or, to put it simply through a simulation of procedures based to varying degrees on their real-life counterparts or on the imagination of non-existent systems. In any case, games are not only visual or narrative representations but also representations of possible actions within systems. In *Essays on Algorithmic Culture*, Galloway further introduces the concept of *allegorithms* (2006, 90), which bridges the rules and algorithms of digital games within players' perceptions of game algorithmic action, as related to player experiences with imagined allegories of their real-life counterparts. Allegorithms for Galloway are intimate interfaces through which players intuitively interpret the game's algorithm – procedural game rules and software code – with its underlying procedures and representations that are hidden below the level of the user interface. This act of interpreting game allegories is needed to play the game successfully, as the intuitive interpretation of game rules with preconception enables players to intuitively understand the algorithmic machine behind the game visual representation.

For players, a software representation of a set of values and attributes in a spreadsheet is not only a set of numbers but also a complex set of assumptions and allegories of experience outside of the game. It is an allegorithmic game-space waiting to follow player commands, thus a villager in *Age of Empires II: Definitive Edition* is not only a set of numbers and rules but also an allegory game designers' conception of feudal society. The procedural rules governing specific allegories and game economies can potentially fulfil desires and foster subversive imaginings of possibilities that players are lacking in contemporary societies, or question the operation of realistic or purely imaginative systems. This unique characteristic gives digital games a possible critical potential but also allows them to perpetuate conservative ideologies based on stereotypes held by their designers. Following on from this, a villager in *Age of Empires* is an allegorical representation of a very specific conception of work and mode of labour that we as players can enjoy when resting at home. It can be an allegory of control, a fictional power by means of which we can dominate the game world.

For Galloway, games such as *Age of Empires* are allegories of control, differentiated from cinematic and literal allegories by the act of direct involvement of players in the simulation. This simulation of control allegory would surpass the modern passive ideology of cinema and, argues Galloway, would make the role of ideology only a *decoy* in post-modernity. (Galloway 2006, 105-106) I would like to contest this statement, and much of the following chapters will discuss the layer of ideology hidden in digital games as both designed and performative. However, considering ideology in the Marxist sense as a multitude of false consciousness in the service of the ideas of the ruling class (Marx and Engels 1932), I will agree with Galloway's argument that the allegory of control brings us to very different modes of ideology and player labour than allegories encountered in other art media, since games operate with algorithmic code systems, player agency, and input. This work encountered in games can be seen as improving one's limited skills and possibilities when faced with obstacles introduced by game rules, allowing players to prepare for future employment by embodying work

procedures with habitual interfaces – as argued by Brendan Keogh (A Play of Bodies 2018) – or by enabling them to be even better workers under capitalism – although taking often critical and subversive perspectives – following on from the game and science fiction scholar Cameron Kunzelman’s study on speculative game mechanics (The World Is Born From Zero 2022).

In this sense, we can also see the historic relation between games, algorithms, and ideas of work optimisation and improvement. Starting in 1770 and finally closing in 1838, a travelling exhibition featuring a “Mechanical Turk” attracted significant intellectual attention. This was a deceptive *chess* playing machine (a fiction of autonomous game intelligence) that was in fact operated by a skilful human chess player concealed within a large container crowned with a large mechanically controlled figurine on top. The hidden player manipulated a humanoid Turk figurine that responded to the opponent’s moves on the board and answered questions with hand gestures. The Mechanical Turk is an early example of the fiction of artificial intelligence, a concept even today intertwined with abstract game simulation and rules that frame our modern understanding of the future of computers. Charles Babbage, the inventor of an early computer, and Ada Lovelace, considered the first historic programmer, were, according to game historian Samuel Pizelo (2024), largely interested in games of simulation – today known as strategy games - a strain of the era’s games such as chess or puzzle like games as *board game solitaire*. For Babbage, game simulation was a stepping stone to shared discussions with Lovelace on anticipation and computation algorithms, which would be able to streamline mathematical operations by considering spatial and time affordances in the project of a universal analytical engine. These imaginations were based on the *geometry of situations*, a mathematical exercise which considered game problems such as a knights’ tour as a template of algorithmic solutions, and a foundation for the creation of Babbage’s first game algorithms (*tic-tac-toe*). It is this same imagination and endeavour to solve complex problems in space which later resulted in the invention of the first computers.

The value of this example lies not so much in the historical account, but rather in that it speaks on the impact of speculation that game fiction can bring to the imagination of future technology and its possible relations in society. According to Pizelo, Babbage’s initial efforts towards developing a universal chess algorithm, which ultimately led to the creation of the computer, were sparked by his encounter with the Mechanical Turk. Witnessing the fictional automaton in action and participating in a chess match against it may in fact have provided the catalyst for Babbage’s idea that there is a possibility of creating a universal chess algorithm and, with it, a universal computer. Digital games are, to a large degree, afforded by computers, but at the same time we can say following Pizelo that game fiction afforded computers in the first place. If they did, are the ideologies afforded by games to computers, and with this to our daily life, constrained by rationalism and the capitalist logic of improvement, or are there inherently other affordances of loving and critical visiting of game-worlds?

EARLY GAME STUDIES: THE LINK BETWEEN PLAY AND SOCIETY

The cultural historian Johan Huizinga’s famous study (Homo Ludens: A study of the play-element in culture 1949) discusses concepts of play and seriousness in culture, and is considered the beginning of the modern study of games. In *Homo Ludens*, Huizinga argues that the play element is historically central to culture and that various game forms give rise to politics and arts. Huizinga famously coined the concept of the

magic circle – a bounded space of play where the players are temporarily cut off from their culture in the game space, following a predefined set of rules to delve into a pleasurable agonistic struggle or playful idleness while not being serious and free of any material interest, and at the same time following a rigid set of rules which could be translated into a very serious game form. That is, into a set of rules that form a magic circle of play, referring to the game outlines that distinguish it from not-game, and consideration of play as promoting a “*formation of social groupings [that] stress their difference from the common world by disguise or other means.*” (Huizinga 1949, 13). Various societies, their politics, and their cultural form intertwine and give rise to a multiplicity of play in examples based on fostering cooperation, narrative storytelling, political ideas, military training, and material interests, or even give rise to forms of play that do not have any positive meaning at all, for example various forms of gambling and duelling. (Huizinga 1949, 11 and 94)

In 1958, the French Surrealist writer and sociologist Roger Caillois discussed Huizinga’s theory of play in a somewhat controversial study entitled *Man, Play and Games* (Caillois 2001). Caillois still thinks of play as a free activity separated from society, but opts to expand the game typology of play beyond *competitive agon*, adding distinctions for games of *chance* – *alea*, *simulation* – *mimicry*, and *vertigo* – *ilinx* (various forms of physical activities such as spinning to produce pleasurable nausea or similar) (Caillois 2001, 36). For Caillois, in the spirit of the era colonial ideologies, controversially, the forms of *agon* and *alea* are connected to Chinese and Roman cultures, and *mimicry* and *ilinx* are illustrated as connected to indigenous cultures of Africa, America, and Asia (Caillois 2001, 33). Caillois further extends this definition with two modes of play: *paidia* – an active free form of play, and its evolution into *ludus* – a formalised set of rules based on *calculation* and *subordination* (Caillois 2001, Barash’s Introduction 1961, x). Importantly, Caillois introduced the notion that *agon* is not the only form of play, but rather a part of its wider culture.

For Caillois, a game with an example of sports contains large amounts of repetitiveness and *drudgery*, where *professionals* are rewarded with a salary, and “*it is clear that they are not players, but workers. When they play, it is at some other game.*” (Caillois 2001, 6) This connection of repetitiveness and of the value produced in a game intertwines game and work. Still, Caillois’s concepts of *ludus* and *paideia*, as *free activity*, are somehow cut off from society and its material relations of power, gender stereotypes, various forms of oppression, extractivism, and colonialism, or market ideologies, while the various forms of play are connected to historical cultures and their political and material settings. Caillois states that “*play is essentially a separate occupation, carefully isolated from the rest of life*” and that “*game must be taken back within the agreed boundaries*” of rules, where in an ideal state play should be independent of *daily* context (Caillois 2001, 6). Caillois therefore argued for distinction between game and play (Caillois 2001, 9) and against a *blurring* of game and the rules of *daily life*, which in his perspective have become a source of *corruption* of games and play where: “*What used to be a pleasure becomes an obsession. What was an escape becomes an obligation, and what was a pastime is now a passion, compulsion, and source of anxiety.*” (Caillois 2001, 43-44) The play and game are both always connected to power relations in the given society, which in the context of the following chapters might also be a positive thing – if players could foster positive forms of agency.

In contemporary game studies there are various critiques of Huizinga and Caillois. I will be particularly interested in the perspective of player agency as asserted by the game researcher Miguel Sicart (2023), who criticises the ideas of the magic circle as *conservative* and *imperialist*, rather than focusing on player determination and the concept of play as a way of experiencing and *acknowledging* the agency of other players and actors in a given game (Sicart 2023, 28). These concepts of playfulness are

based on the theory of play by the Argentinian feminist philosopher Maria Lugones in her seminal paper (Playfulness, "World"-Travelling, and Loving Perception 1987), focusing on modes of play that may not be consciously inherent in the concept of a given game but are still prevalent modes of play, such as the pleasures of travelling to visit *worlds* and their *inhabitants* or nurturing *self-construction* and *love*. As such, both Lugones and Sicart conceive play not only as concerning the magic circle of the game but also as inherently relational and connected to politics outside.

In 2011 Jespers Juul defined game as “*a rule-based system with a variable and quantifiable outcome, where different outcomes are assigned different values, the player exerts effort in order to influence the outcome, the player feels emotionally attached to the outcome, and the consequences of the activity are negotiable*” (Juul 2011, 36). Games can be seen in a shorter version of this definition as “*activities with negotiable consequences*” (Ibid.). However, I would like to incorporate the political aspect of agency according to Sicart (2023), who argues that games will always have various real-life consequences. Keeping in mind the loving perception of world travelling proposed by Maria Lugones, we might even imagine game space as allowing forms of play that explore identities, agencies, and politics far beyond the framing introduced by Huizinga and Caillois.

GAME ART AND CRITICAL PLAY

As my background is the arts, it is important to tackle the relationship of digital games towards concepts such as high culture and the fine arts before we continue further. I strongly believe that digital games can be art media and find it natural to consider selected games as art with high aesthetic and intellectual qualities. We do not need to consider *Age of Empires II: Definitive Edition* to be a fine art artefact, but on the other hand considering *Citizen Sleeper* as art seems more than reasonable. Nevertheless, there is a history of contestation of such claims.

Following on from the art and game philosopher Grant Tavinor, let us discuss two arguments presented as examples of disqualifying games from the realm of art. Both arguments are summarised in detail together with a larger question concerning game art in the article on *Art and Aesthetic* (2014), and I will discuss them here only briefly. First, the *masterpiece argument* contests that any game exists that can be considered high art. Second, the *disqualification argument* states that games are not art because they lack certain art qualities; for example, games are rule-based and, as such, are not really authored but rather played according to players' choices.

The first argument can be countered by listing serious and art game titles such as the seminal use of video and game-space narration in *Myst* (Cyan 1993), and more recently a wave of subversive auteur titles such as *Kentucky Route Zero* (Cardboard Computer 2013), *Disco Elysium* (ZA/UM 2019), *Death Stranding*, and *Citizen Sleeper*, which employ aesthetic, narrative, and critical qualities that could hardly be considered not-art, since they also employ artistic strategies from other media, such as literature, films, drama, performance, or fine art, as discussed in later chapters. Generally, up until recently digital games as such (except for their appropriations) were not broadly considered a mature cultural form, or a possible standalone medium of fine arts. The second argument forgets that interactivity is already present in performance arts for example, but also commits an oversimplification by considering games a medium that is purely in the control of players, which is a prime example of *code fetishism* (a software ideology coined by software scholar Wendy Chun (2011), imagining software code as something standing by itself naturally without any connection to the human

and material base that gives it motion in reality). In other words, digital games tend to be considered some form of natural artefact in the cybernetic landscape, as game forms stemming from the cybernetic ground ready to be appropriated by higher cultural forms of fine arts. This approach largely defined the early decades of fine art approaches to digital games, which focused mainly on the aesthetic appropriation of already existing games such as Cory Arcangel's installations of *Super Mario Clouds* (2002). In any case, there is a valuable focus on the player authoring the digital game in the second argument. I would disagree that it disqualifies games as art media, but the question of authorship is complicated, as games are indeed performative media which are acted upon with various attitudes and agencies.

Artistic and speculative strategies can be afforded to all actors in digital games, such as artists, designers, and players in digital games. As such, games have complex and varying allegorical meanings, and can utilise narrative, procedural, and aesthetic strategies simultaneously. It is important to consider game politics on multiple levels which consider not only the qualities of older media, but also the qualities introduced by algorithmic rules – procedural game code systems.

I believe that the view of game media as inferior to fine arts changed radically in the early 2010s with game works such as Hito Steyer's video installation *Factory of Sun* (2016), using a contrast of military surveillance drone aesthetics and game tropes such visual elements of shooter and dance games in search of collaborative modes of resistance, and Harun Farocki's *Serious games series* (2009-2010), which examined the military imagination as well as tropes of idle non-playable characters in a series of performative video appropriations of game simulations. However, with the surge in auteur games employing artistic and subversive intentions and narratives, we can see fully utilised strategies known from the arts in digital games even without being fixated on the gallery context. If two decades earlier Alexander Galloway (2006) called for a new avantgarde of gamic action – an art of radical game rules and of the social realism of action – that would not only use game aesthetics but would rather build on the politics offered in game control allegories this is also discussed in detail by game ethnographer Thomas Apperley in open access book *Gaming Rhythms* (2010). In 2025 we can consider this very real with a lively game art scene and art games practice with recognised artists such as Paolo Pedercini, Theo Triantafyllidis, Danielle Brathwaite-Shirley and many more who utilise digital games as their central art media without merely appropriating already existing games or without only using game aesthetics. Numerous dedicated game-art exhibitions, such as the seminal 2022-2024 *Worldbuilding* exhibition at Julia Stoschek Collection Düsseldorf, have demonstrated that the art of game action, narration, systems, and whole game worlds has a lot to offer.

PLAYING IDEOLOGY

My focus in digital game art is not only on game action or on the critique of control societies, since I hope that with the outlook for critical art and speculative game design practice it shall be important to investigate the possible critical and speculative allegories of work, exchange, and ideology in games. In other words, to think of futures through procedural fiction afforded by games represents a unique mix of narrative and procedural allegories. The game designer and researcher Ian Bogost (2007) famously coined the term *persuasive games* as a use of specific rhetoric within procedural rule systems. This rhetoric is based on a *simulation gap*, a movement towards interpretation that fills the omitted part of game simulation, which often gives game its political context. Following on from Bogost, these gaps provide the background of the game ideology, understood with an outlook to player action, as “[h]idden procedural systems

that drive social, political, or cultural behaviour” (Bogost 2007, 72). With game ideology, we can follow the relationship between game systems, their allegories, and their underlying politics as a mechanism that defines our value judgement with rule-based systems and narration, which conveys their position with the algorithmic construction of systemic rules. In examples of such rhetoric, a game which for example defends imperial and colonialist positions within its rules by showing strong rules of military conduct and good soldier behaviour, which was famously the case of the US army promotional game series *America's Army* (United States Army 2002 - 2022) designed as a recruitment tool, and as such painted US soldiering in rosy colours hiding the violence and suffering it often stands for in reality (Bogost 2007, 75). However, persuasive games can also make political arguments beyond the critique of society of control (Apperley 2010, 22).

As early as in 1996, the Media and art theorist Julian Stallabrass (Just Gaming 1996) considered games allegories of military culture. Allegories of the military in this sense combine both the work of players in constructing individual allegories of the world the given game simulation builds, and its possible relation to ideology-based game rules that introduce players with convictions, stereotypes, and ideologies that would then influence decisions on which game-space populations to exploit. In strategy games algorithms, such as in the later-discussed *Civilization VI* (2016), players would often prefer not to exploit their populations and units when it comes to progressing through the game. Thus, if there is a possibility of exploiting the populations of others but when there are no other units or civilisations, it could become increasingly expedient to exploit the player's own population, as its role can be ideologically identified as the role of workers rather than the role of allegorical or imagined citizens. This is a somewhat crude and simplistic example, but it illustrates how various ideologies (e.g. colonialism, class capitalism, and many others) pervade systemic allegories, such as digital game worlds and maps.

Viewing the relationship between game narratives and rules as an analytical question according to the game scholar Espen Aarseth (Cybertext: Perspectives on Ergodic Literature 1997), I consider games as procedures and playful operations with narratives. Within this relationship, games are not only narratives but also procedures, and their overall meaning – *ethos* – is constructed within a relationship where procedural representation and narrative allegory cannot be seen as separated. Digital games can be seen through the lens of meaningful player actions performed within the game (J. Murray 1997). In this dissertation, I assert the premise that both the game narrative and procedural rules construct the entire game feeling in game ethos. Ethos is, in this sense, the abstracted meaning of algorithm.

Considering the ideologies present in historical games, I might argue that even a dominantly procedural game such as *chess*, represents a certain ethos through its algorithm. When imagining the value of chess pieces against each other, we might start reading power differences between types of figures where pawns are generally considered to have a lower value (game impact) than, for example, bishops and knights. As such, *chess* pieces are allegories of social power relations, and in this sense, we might conceive *chess* as an allegory of state and religious ideologies – an ethos containing ideology. Considering that contemporary digital games afford greater complexity to players and designers, we might see multiple ideologies, some of which could represent capitalist worldviews, while others might represent a false consciousness of extractivism for example. As with the distinction between narrative and procedural, there is an obscure difference between the game world and game map. The game world can usually be conceived as the entire game ecosystem, economy, and ethos, including both entirely fictional and algorithmically represented entities, procedures, and narratives. The game map can be seen as a cut-out from this world,

which is usually a space for agonistic struggle, colonisation, and exploitation. A map is a tool of navigation while travelling, but historically it has also served as a tool of military conquest.

Adjacent concepts of ideology and hegemony in the case of the early 20th century Marxist political theory of Antonio Gramsci are transferable to studying game cultures according to Robert Cassar's paper (Gramsci and Games 2013). This strain of ideological analysis of digital games is valuable precisely because it brings games into the social context, not merely isolating their analysis in the media or technology-oriented debate: *"Considering that no era is without its conflicts, video games prove to be particularly interesting because they allow various ideological forces to coexist within the same medium. Some of these forces reinforce the status quo, while others shed light on the obsessive tenacity of human nature. In other words, video games are a very useful platform to observe Gramsci's hegemonic conflicts in action."* (Cassar 2013, 332)

But are they? In Gramsci's theory of hegemony and the hegemonic worldview, culture and cultural commodities help the ruling class to educate and embed the status quo in society and politics by embedding ideological positions in everyday life as seemingly natural, for example with folklore used to foster capitalist common sense convictions, but they also allow for their reversal in favour of another (ideally positive and social) cultural hegemony (Martin 2023). Matt Garrite's earlier research on the relationship of ideology and labour in digital games (The Ideology of Interactivity 2003) argues that the relationship between the modes of player work and game is interpellative. This means that it bases the critical perspective on games on Althusserian ideological state apparatuses (Althusser 1971), viewing games as tools of ideological interpellation and as tools for recruiting players as subjects of the ideological hegemony. Cassar (2013, 337), following Garrite's argument, uses this Althusserian perspective on the relationship of digital games to the player as one of "symbolic violence", which essentially at the same time promises and removes the player's real freedom to act by enticing them with an "aggressive" consumer ideology of the algorithm's cognitive "bombardment" within a gamespace constructed by game rules and repeating mechanics. This ideological violence of game algorithms is supposed to leave players almost agency-less in the face of the ideological, narrative, labour, and market rules of game simulation by stripping players of their critical standpoint.

My dissertation begins by discussing this outlook with an inner game market economy analysis in the first chapter. Despite accepting the value of Garrite's arguments for the analysis of consumer culture in digital games, my general argument is the opposite of such techno determinism. I do not see players as being fully controlled by ideology or algorithmic systems. Instead, I see players as actors with agency, who often take a critical stance in the face of rule-based simulation and may bend, modify, or even hijack the game ethos and rules (Sotamaa 2014). In accordance with the performative code concepts by Wendy Chun (2011) and the theory of agency in contemporary game studies, I argue that players must actively follow the code/game ideology to make it hegemonic in digital simulation – it must be acted upon. Therefore, digital games can enable dialogues between players, algorithms, and their various kinds of speculative, social, political, and economic ideas, which finally make digital games an almost natural space for contesting ideologies provided that we can foster digital games' critical standpoints, both as players and as game designers.

The speculative and critical potential of digital games can be understood as stemming from the larger tradition of speculative realism investigated Cameron Kunzelman in (The World Is Born From Zero 2022). Kunzelman's take on *speculative game mechanics* is further discussed in the chapters on alienated game strategies. Here,

speculation in games should be considered the possibility of asking questions beyond the boundaries of game rules and algorithms. To quote Kunzelman: “*To call something a mechanic of speculation is to say that it activates speculation within a player. It asks them to think about the relationship between the world they are in, and the subjectivity they have within that world, and the world that the video game is presenting them with. These mechanics can have a wide range of effects: they can enact a Brechtian estrangement; they can purposefully confuse the player; they can produce a comparative between their world and the fictional one; they can stage competing ideologies against each other.*” (Kunzelman 2022, 28) With this reading we can focus on the often problematic relations between the seemingly mechanical rules of game codes and algorithms, and the politics and ideologies such codes might represent. Within this context, we can also assume that a relationship might also be used for critical and speculative readings, play, or game design if it allows player speculation.

PLAYER AGENCY AND GAME ECONOMIES

The game researcher and philosopher of agency Christopher Thi Nguyen argues that the artistic value of games lies in the ability to deal with external agencies imposed on us in real life, similarly to the struggle against the agencies imposed on us by algorithms in games. Player *agency* is a key concept in the study of the modes of game labour and its ideologies. Following on from Nguyen’s influential book (Games: agency as art 2020), I will be considering player agency a distinct form and aspect of games as an art medium, although Nguyen defines agency loosely as an intentional action for a reason, and opts to look directly into recent discourses of multiple agents and systemic agency (Nguyen 2020, 17-18). From this perspective, games can be considered anti-interpellation practices. As a further argument against a technologically deterministic reading following Althusser, we can employ this argument loosely by affirming that players may access games with borrowed, shared, or their own agency, often desiring not to be interpellated by game algorithms but rather to try to break them within the safe space of the simulation. The expanded notion of agency discussed throughout this dissertation is not constrained only to human actors; it is particularly important to new materialism and speculative realism (Keogh, A Play of Bodies 2018, 26), or in an expanded context when discussing power relations in society, as in (Foucault 1982). Our daily agency takes place within a *societal* context, in accordance with Foucault and Latour’s Actor-Network Theory, and even non-human actors participate in social agency (Bódi 2023, 13). This dissertation will focus on the game researcher Bettina Bódi’s concept of agency, which focuses heavily on the possibilities of player agency afforded by meaningful game interactions.

Bettina Bódi engages in probably the most detailed research of player agency to date in her recent open access book *Videogames and Agency* (2023). Based on the discussion of agency in game studies history concerning its narrative aspects along with the role of game mechanics and their material contexts (Bódi 2023, 14-16), Bódi opts for an approach to agency based on the notion of player avatars, which in the expanded context function as vehicles of player action in the game world, defining agency in *player/avatar* action (Bódi 2023, 25), whether this concerns control of a single-player hero avatar, as seen in *Death Stranding* (2019, 2022), control of family of avatars in *The Sims* (2000), or control of avatar army/economy of multitude in *Age of Empires II: Definitive Edition* (2019). In other words, player avatar in an expanded sense is the interface we use to influence the game world, and therefore a tool that defines and limits our agency in the game. Following on from Miguel Sicart and Janet Murray, Bódi describes *player agency* as *possibility space*: A possibility of meaningful *choice*, (pre-)afforded within the game, with conscious game design decisions about how to

navigate and limit player action, in which she controls the game avatar. (Bódi 2023, 29-30)

Similarly, based on the focus on the possibly unconscious ideologies contained in the game, I attribute the algorithm to its own agency shared with the players. To put it differently, I shall conceive agency as potentially irrational and unconscious, or as agency of the other, not initiated solely by the player– but rather a form of *shared* and *collective agency*¹ between the players and game rules. This notion of game as a dialogue between designer intention and possible meaningful player agencies is particularly important for the discussion of digital game ideologies and digital game rules as coercive structures affording possibilities player experience and within the code of the game and user experience. I will refer to this dialogic relation as performative – as this needs to be performed by players in order to bring the digital game software alive (Chun 2008), in other words to perform its (undead) ideology.

The discussion of agency has a history in debates on game studies from the early 1990s to this day. Of great interest here is the discussion of the subversive player – by game designer Theresa Tannenbaum – specifically the agency of the disruptive player enacting freedom against game algorithms – the previous rhetoric of misbehaving players agency was employing “*harmful narratives about players*” (Tanenbaum 2014, 2). I will conceive games in the sense that they should incorporate player subversion within the design, but I will also argue that subversive player agency might become trapped in yet another layer of game ideology: the layer of subsuming capitalism within the game space. Gamespace and gamescape matter as we test our convictions against the game algorithm, but the algorithms also test us.

Furthermore, there is a material reality in which code is reproduced on computers connected to a game match. In other words, players not only imagine the act of playing the game but also revolve within the margins defined by the algorithmic code, which might simulate anything from shooting, gravity, to a capitalist economy. The digital game code-based rules have the same algorithmic and fictional rules. Grant Tavinor (2023) pointed out that this fiction within the algorithm is in need of constant interpretation by the player, otherwise it would not enable players to find cornerstones to orient themselves within the procedural rule systems:

“Playing Red Dead Redemption consists of hunting coyotes, gun-fighting, and searching for bandits; these activities are all fictional, and what would be left of the game if these representational elements were stripped away would be unrecognizable as a game, likely comprising a non- playable collection of code. If one is to play this game at all, one must imaginatively engage with this content.” (Tavinor, Fiction 2023, 553)

Recalling the allegorism introduced by Alexander Galloway, where rules are allegories to be interpreted by players, we can further consider the interpretative agency of players as an inherent aspect of digital games. Games can be read as allegories in need of interpretative work on fiction. If we consider capitalism to be an interpretative framework of digital game allegories, we can also conceive of games as ideological fictions of economic exchange and markets.

The game economist Edward Castronova defined game rags to riches settings, framing them as an alluring power fiction of scarcity in his pioneering exploration of early

¹ See forms of shared agency and further references in (Roth 2021): <https://plato.stanford.edu/archives/sum2017/entries/shared-agency/>

massively multiplayer game economies. For Castronova, the game appeals to players by representing equality of opportunity within game economies while representing artificial scarcity, which can be pivotal to the enjoyment of the game economy in most game settings. Again, for Castronova, it is not only a fictional system that reproduces its ideologies; the material reality of economic exchange within a game can be defined from an economist perspective as a real economy as *“any distinct territory with a labour force, a gross national product, and a floating exchange rate. By this standard, the new virtual worlds are absolutely real.”* (Castronova 2001, 18) Curiously enough, Castronova calculated that in 2001 players of the massively multiplayer role playing game (MMORPG) *EverQuest* (1999) could on average create value that could be translated to an hourly wage of \$3.42 (2001, 35).² The gross national product of the game world may sound very strange, and indeed it is, but the reality is that players of games such as *World of Warcraft* produce real value with the attention they dedicate to the game within its affordances (I will refer to these affordances as inner game markets later in the text). At the same time,, players may exchange the value they produce in some games for other (external real-world) currencies on external game markets (either officially or with the help of various shady marketplaces).

This dissertation examines in-game value and its exchange markets as a means of scrutinising game ideologies. This approach subsequently extends to identifying design principles that may be used in future game design and analysis, while exploring the overall significance of game development and gameplay as a critical instrument. In the next chapters I will also follow a particular discourse in game studies, which argues that it is not possible to conceive games as an apolitical medium because digital games mirror contemporary capitalism in the form of subsumption into their game mechanics and narratives. The sociologist and political scientist Hartmut Rosa writes that: *“In fact, the compulsion to manage time resources efficiently that results from the capitalist economics of time began to impact the form and substance of the predominant temporal practices, perceptions, and orientations of the working population in a massive and wide-ranging way in the wake of industrialization.”* (Rosa 2013, 165) In the capitalist paradigm of improvement there is also certainly a compulsion to manage our time and improve our resources which, as I will argue, is later translated into games in the form of the game mechanics and loops of accumulation or improvement as shown in the first chapter. This effect of reorientation follows the acceleration of society, which is connected to the necessity of different actors to speed up processes under capitalism in order to maintain competitiveness. (Rosa 2013, 162) This is then translated into the need to improve the way we spend our individual time – *“hence to measure the value of free time* (Rosa 2013, 164).

When we examine this necessity, we can see the connection between the optimisation and improvement present in digital game allegories. The clock and punctual times are inventions of the industrial era and its early capitalist institutions, focusing on fostering new forms of habit (Rosa 2013, 167). Institutionalised optimisation of time and capitalism are interconnected, and blend into the cultural production allegories and the way we conceive our free time. Under capitalism, we are driven to spend our time valuably so as to optimise leisure.

This introduction started with the question of why games disguised play behind work. Now it is time to formulate more specific questions about the mechanics of the subsumption of capitalism into the digital games we play, their economies, modes of

2 which was slightly above the average hourly wage in 2001 Czechia according to public data from Czech Statistical Office. For reference <https://vdb.czso.cz/vdbvo2/faces/en/shortUrl?su=9b042318>, accessed 01.11.2024.

exchange, allegories, ideologies, and politics. In the spectrum critical to technology ownership, the answer is that the code of the digital game is a consciously oppressive structure. Hartmut Rosa argues, following on from the slogans of Marinetti's futurism, that the historic relations between the capitalist economy and organisation of life are not only directly caused by the modes of production but are also caused by the dominant temporal ideologies of acceleration: of improvement, optimisation and increasing the volume of production.

Cultural narratives (Rosa 2013, 10-11) define the way we think of production relations: modes of work, employment, ownership, and technology. Capitalist organisation and economy are not a direct cause of temporal ideology, but rather conversely its "instrument". (Rosa 2013, 183) This is great example of what is meant by subsumption: the interlinking of culture and the production relations under capitalism. Similarly, when designing playing software, game design works not only through the game procedural algorithm and through the narrative, but also through often unconscious ideologies present in the modes of game labour and exchange, in the allegories of control (Galloway 2006), of militarised violence (Crogan 2011), or even at the level of interpretative frameworks of whole geographies described by the two influential parallel terms *gamespace* and *gamescape*.

The term *gamespace* describes the space of the game, encompassing all the game objects that players might or might not encounter while exploring the game world, as well as the possibilities beyond such an experience. These possibilities, affordances, and game algorithms or rules denote the overall meaning, procedural rhetoric, and ideology of a given game respectively. This is something argued by Alexander Galloway (2006) and McKenzie Wark (2007), but we might ask further for the role of ideological construction of the game landscape as a resource to be (played-)acted upon or extracted. McKenzie Wark in her book *Gamer Theory* (2007) introduces the argument that the game world is not demarcated at the level of its algorithm but that the gamespace is intertwined with the political reality in which it is created. This interpretation allegory based on general subsumption in intertwining is not a precise copy; rather, it is an inverted image of reality based on various beliefs and ideologies, which we shall investigate further in the first chapter.

Gamescape (the active mode of game landscape ideological construction and framework) is produced by a delimitation of game algorithm stereotypes, which was coined by the game scholar Shoshana Magnet in her seminal paper (Playing at Colonization: Interpreting Imaginary Landscapes in the Video Game Tropic 2006) as a term to highlight the politicisation of game environmental depiction within colonial fantasies of the stereotyped game experiences of Caribbean Island. In such a stereotypical imagination, the game environment (level or whole landscape design) serves as a framework of the game ideology that frames the entire landscape (and populations) as inherently exploitable, and therefore justifies colonial narratives in its rhetoric. This is further stressed by Soraya Murray in relation to postcolonialism and game ecology. Murray argues that gamespace serves not as an environment to relate to naturally without a political standpoint, but is constructed as an inherently colonial gamescape by design (Postcoloniality, Ecocriticism and Lessons from the Playable Landscape 2024, 147).

To follow up on Galloway's allegorisms, the inverted image of ideological allegory within the gamespace framework very much recalls the camera obscura, a description of ideologies used by Marx and Engels in *The German Ideology* (German Ideology Part I: Feuerbach Opposition of the Materialist and Idealist Outlook 1932), which introduces the argument that the beliefs of the ruling class are mirrored and perpetuated in the cultural production of the era as false consciousness. This brings me to the question of

ideologies and a gamespace which is simultaneously political and playful, both conscious and unconscious. The ideologies of exchange and work in digital games I focus on in the following chapters are given both by the algorithm and by the players' *agency* – players' own ideas and strategies of play. As such, when playing “*we experience the game designer's art by flexing our own agency to fit.*” (Nguyen 2020, 1)

GAMES THAT CHANGE PLAYER ATTITUDES

In *PlayStation Dreamworld* (Bown 2018), the media theorist Alfie Bown describes the ideological unconsciousness of games and its relationship to contemporary modes of labour. Bown argues that these are increasingly repetitive and alienated in the first decades of the 21st century as they are transformed by digital technologies and corporate platforms. To paraphrase Fredric Jameson's famous quote, it is a moment of loss of history and a prevailing social stasis based on the belief that there is no possible structure of society other than capitalism, which, for Bown, is increasingly influenced by the politics of cyberspace technologies. The subversion of this stasis in Bown's *PlayStation Dreamworld* is a strategy of working within the system. (Bown 2018, 3) Bown does not argue for a rejection of technology, but rather for an effort to democratise it against hegemonic power actors, which may be corporate platforms or perhaps authoritarian states. For example, states can gamify everyday interpersonal relationships within a system of social credit and evaluation, bringing competitive gaming systems of evaluation and market mechanics into real life. (Bown 2018, 15-16) The power structures of the current economic-political system are bleeding into the culture and digital entertainment parallel to workspace, reshaping them with the dominant ideology of platforms. If we accept this view, we can critique the example of gamified systems as simultaneously retroactively transferring game forms of control - ideological rules and game-like mechanics - into our lives outside of the game and their relations of production.

Gamification, as both social and digital games, is described in detail in the works of game scholars such as Ian Bogost (*Persuasive games: the expressive power of videogames* 2007) and Miguel Sicart (*Playing software: homo ludens in computational culture* 2023). It refers to various conscious attempts to bring game elements into real-life interactions, ranging from decision-making, work-space organisation, or data mining, and has various negative and positive effects. The most common goal of gamification is to increase production, the output surplus value of the given system, or otherwise improve the abilities of human workers. In its inception, gamification focused on enhancing individual education via play and technology, but from the past decades we might conclude that the negative aspects of its implementation in real life have prevailed (Sicart 2021).

In this dissertation I will further argue that one of the reasons for this is the subsumption of negative capitalist phenomena to digital game economies: not only to their conscious ideologies, which some of the games may employ, but to the subconscious of their algorithmic economies. I argue that algorithmic economies based on algorithms of game exchange, inner game markets, and the player interpretation of the optimal strategies, are key to our experience of play and to the possibilities of creating speculative and non-capitalist game experiences. I argue that the digital games and systems we operate every day ultimately reflect the illusions of prevailing ideologies. Although players often fail, lose, or die in digital games, there is scarcely a moment of ultimate failure beyond respawn or the ability to start a new game. In this dissertation, games are often viewed as allegories of contemporary capitalism, as in the digital

worlds of real work and platforms. This absence of failure and alienation reveals the (false consciousness in) politics of labour, exchange, and exploitation concealed within game ideologies, which often revolve around the idea of endless growth and improvement. They may initially stem from their cybernetic origins: From Ada Lovelace's programs and Charles Babbage's 1837 analytical engine, with a positive outlook to rationalise and compute previously unsolvable problems and automation in space and time, but as already mentioned, the ideologies of capitalist improvement might begin even earlier, with the imagination of automation of movement and optimisation of actions in the game communities of strategy games such as *chess*.

I use the term digital games rather than videogames first because it is closer to my cultural background in post-Eastern Bloc Czechia, where due to the later public adoption of digital computation technology and lesser wealth compared to Western Europe, it was and still is more common to play on a PC rather than videogame consoles for economic and "*pragmatic reasons*" (Šisler, Švelch and Šlerka 2017). Furthermore, with the origins of the first digital games on military-funded university computers, a personal computer was primarily meant as a workstation, but it also always had an inherent subversive element in its ability to run counterproductive games (Bown 2018). Finally, I prefer the term digital games, as it highlights the material contexts of technology rather than its aesthetic aspects.

I will conceptualise the term alienated games based on the feminist and alienation politics of *the Xenofeminism manifesto* (Laboria Cuboniks 2018). The possibly alienated games described in the following chapters highlight the subversive and speculative potential of digital games. I will argue that this subversive potential of digital games relates to possible alienation and breaks with the promise of optimising labour productivity. According to a number of authors, optimisation and the drive for improvement is interconnected with the historic military background of the research and adoption of digital computers along with broader digital media in the second half of the 20th century (Dyer-Witheford and de Peuter 2009) (Chun 2011) (Crogan 2011). I will argue that it is possible to break from the improvement and optimisation driven modes of game exchange, which are ultimately historically based on demands connected with capitalist modes of production, its power and cultural hegemony.

A recent meta-analysis (Kolek, et al. 2023) on the impact of game narratives and mechanics on player opinions and attitudes shows that game allegories shape attitudes towards the topics presented by the games we play. Interestingly, the analysis has shown that the narratives mostly tend to influence player options, since they "*frame how the story is told*" (2023, 1). Notably, these narratives often employ *framing*³ with implicitly biased attitudes towards specific standpoints that are not otherwise openly argued in the game. The meta-analysis found that the duration of the game experience does not play a significant role in explicit attitude change, that the game's perspective (or value standpoints) on issues taken by the given game did not change explicit player attitudes significantly, while meaningful game interactions and *stereotyping* (using persuasive game mechanics that stereotype certain persons and groups - for example "*Arabs as terrorists*" (2023, 3)) did cause a significant attitude change. Lastly, fast action and non-action games had similar attitude-changing effects based on game mechanics and narratives. (2023, 9-10) On the level of critical art strategies, the finding that the duration of game-play experience does not significantly affect explicit attitude change (2023, 12) is very promising for game-art gallery practice, educational game

³ Framing can be understood as often simplifying depiction and description (approaching and painting) of various phenomena with prejudice or apriori standpoints. See Question Concerning Technology in (Heidegger 2013)

projects, and small independent games, as even short game experiences seem to have a large impact on players. I assume that these attitudes are often related to game designers' ideologies and standpoints built upon the theoretical background of the meta-analysis (2023, 2-3). Digital games that are more procedural than narrative are often considered by players as a source of fun, and are therefore in contrast with forms of *persuasive games* that are explicit in the ideological direction while not employing any strong narrative elements. This hidden ideology formed in the so-called fun experience of dealing with the game has stronger effects on attitude change.

With the widespread adoption of game media, we can see the importance of changing the game narratives and mechanics, as they often convey nationalist, racist, colonial, and capitalist ideologies or even explicit political *propaganda* which seems to be very effective as “*narrative video games’ representations of marginalized groups, history or gender stereotypes are, according to these findings, transcending the medium itself and affect our daily lives and our interpretation of the world.*” (Kolek, et al. 2023, 11). Considering this, a strategy to work with such ideologies and standpoints is required in order to allow for the speculative potential of critical design and art in the game medium.

FOLLOWING CHAPTERS

Based on the above, we can assume that the limitation of speculative game potential is partly due to the fetishism of our interactions within the game, where players tend to avoid critical thinking when in contact with a game ideology.

The first chapter proposes that the underlying ideological mechanisms of game fiction are based on dominant modes of exchange of players' labour for game progress. It starts by defining the terms used in the dissertation: game exchange, game inner markets, game value, and player labour. The chapter then explores the context of ideological analysis in game studies and describes the chosen methodology: a Marxist analysis of game exchange and markets via the optics of the labour theory of value, with a focus on surplus value creation and crises of capitalism, as found in allegories of two popular strategic games. The chapter follows with the first two case studies employing a methodology for an analysis of game exchange and markets: an analysis of two iconic strategy games, namely *Age of Empires II: Definitive Edition* and *Civilization VI*. Both games can be viewed as promoting different forms of capitalist exchange. I argue that the speculative potential of both games is limited because of their underlying ideologies. This chapter considers both the shortcomings of digital games and possibilities for constructing different economies based on game modes of alienation. Dominant economic exchange modes frequently found in strategy games, such as *Age of Empires* and *Civilization*, mirror competitive, extractive, and resource-depleting market dynamics, while at the same time envisioning endless growth and accumulation with everlasting resources. To define these ideologies and possibly exploit their speculative potential, an unmasking of ideological propositions under their modes of exchange is needed. This can be achieved through an analysis of the inner game markets, meaning the mode by which players exchange their labour in order to advance in the procedural simulation.

The second and third chapters discuss the theoretical and normative frameworks, with the concepts introduced in the first chapter. The theoretical framework from the second chapter refers to the case studies of strategy games while introducing terms of alienation and similar critical strategies. The theoretical analysis in the second chapter focuses in detail on the lack of emphasis on class alienation in game narratives and

exchange systems, suggesting that alienation is often overlooked in popular games. The main goal of the second chapter is to conceptualise the position of the theory of alienation within digital games, and later specifically within the context of game art and critical game design. I begin by discussing alienated exchange strategies for a broader scope of game genres, mainly narrative role-playing games (RPGs). The discussion continues by introducing the politics of alienation with a focus on Marxist, feminist, and class theories. The chapter will then explore the historical concepts of alienation in Brechtian theatre and Situationist art, and discuss how these concepts relate to early game art. Finally, the chapter focuses on the practice of critical and radical game design, including player agency, by fostering alienated game exchange narratives. I will investigate possible design strategies based on the affirmation of alienation and speculative modes of game inner market exchange; in short, on how players exchange their game labour in inner game markets. This chapter discusses two forms of alienation in relation to digital game design: objective and subjective. Objective alienation, rooted in Marxist theory (Leopold 2022), describes the separation of labourers from the products of their labour and the processes involved, a characteristic of capitalist systems. It encompasses historical processes, such as primitive accumulation and the transition from direct production to wage labour. This study argues that many players often encounter scenarios resembling colonisation, exploitation, and resource extraction, rather than the historical development of capitalism. The absence of narrative or procedural depictions of real primitive accumulation, which have fundamentally reshaped social and production relations throughout history, means that players in games rarely experience true objective alienation. Instead, players may encounter forms of alienation that resemble feudal or colonial models, thus preventing direct allegorical engagement with capitalist social relations in the discussed strategy games.

I propose that the critical exchange and primitive accumulation emphasised in game design have the potential to incorporate both subjective and objective alienation. Game narratives can employ these forms of alienation to create alternative exchange systems that challenge the prevailing ideologies. The discussed RPG games, namely *Death Stranding Director's Cut* (Kojima Productions 2019, 2022) and *Citizen Sleeper* (Jump Over The Age 2022), are examples of games that emphasise alienation in their narratives while integrating an economic critique into the gameplay mechanics. For this, it is important to emphasise the procedural specificity of game exchange, allowing for the exploration of the alienation experienced by players when exchanging their labour for in-game commodities. The critical potential of alienation in games can be used to contest the dominance of the existing narratives and exchange systems. The concepts of countergaming (Galloway 2006) and persuasive games (Bogost 2007), where artists and developers actively seek to subvert conventional game mechanics and narratives, trace the evolution from early countergaming, primarily marked by aesthetic modifications, to the development of radical game mechanics. Furthermore, we can challenge the traditional distinction between mainstream and art countergames, as many mainstream games often incorporate radical narratives and mechanics while retaining their media specificity and introducing critical games to mainstream players and communities.

I emphasise the importance of examining not only economic ideologies in games but also ideologies of military coercion (Crogan 2011) and power hegemony (Dyer-Witthford and de Peuter 2009) (Mukherjee, *Playing Subaltern: Video Games and Postcolonialism* 2018). Following on from the argument that digital games are closely linked to the military and research in early computer technology (Chun 2011), we can assume that they significantly influence their design and narratives. Therefore, we can explore the connection between digital games and real-world operations by emphasising the impact of game simulations on ideologies.

The third chapter offers a normative framework for analysing digital games based on the concepts of game exchange and code fetishism, and introduces player performativity in digital games based on Chun's concepts of code fetishism and code performativity (Chun 2008), suggesting that players actively perform game mechanics and narratives rather than being passive recipients of game ideologies. This concept is linked to the concept of player agency (Bódi 2023) (Sicart 2023) and the democratisation of technology (Chun, *Updating to Remain the Same: Habitual New Media* 2017). The two key concepts discussed in the third chapter – code performativity and player agency – expand upon the preceding discussions of fictional game capitalist economies and the concept of alienation in digital games: These are both notions that software or code performativity of ideology brings to life the given software ideology with game action affordances or possibilities, but that player input cannot be forgotten when considering this in relation to software. I argue that the performance of ideology in games (and possibilities of its inversion) is brought to life by the affordances of player agency, conceptualised as a possibility space of meaningful action afforded by game design (Bódi 2023). At the same time, shared forms of play need critical consideration – for example, the interconnection of player agency and the ideology of game developers, reenacted by fictional characters and entities encountered during gameplay in an active dialogue between the game and players. Moreover, players must perform the code of the game meaningfully in order to win, finish, or complete it, and in that sense they are actively involved in performing its software ideology by interpreting and interacting with its affordances (Chun, *On Sourcery and Source Codes* 2011). The focus on performativity in digital games advocates opening the game experience and design to various actors, including players, game designers, and artists, while not obscuring the player alienation embodied in economic systems. Code fetishism is the illusion that a code operates autonomously, obscuring the material processes involved in its execution. Recognising that code and therefore game procedural rules are performative entities, and that players consciously perform game ideologies in networked communities, allows game designers to challenge the dominance of capitalist, colonialist, or accumulation narratives and competition-oriented exchange systems in popular games.

The chapter concludes by discussing the framework within the discussion of democratic agency and within the discussion of colonialism and extractivism. I discuss the problems in current popular game narratives concerning the lack of democratic allegories and simulations, considering possible alienated game strategies, and further analyse colonial narratives and capitalist ideologies in digital games. Both the concepts of player agency and software performative ideology can be tied to various modes of game fiction of capitalism (and capitalist game exchange), namely, its extractivist and colonial game mechanics, which are game rules that direct players to a re-enactment of production, class, and imperial ideologies which are popular tropes in many games.

The fourth chapter offers a synthesis conceptualising a three-level heuristic framework for game ideology analysis, speculative and critical design. It is questioning the mode of generating value within game markets, modes of alienation of players and actors within the game, and the levels of performative agency affordances within the given game. This framework builds on the concept of troubled utopia or troubled world visiting, taking the Lugones loving visiting with an implicitly critical and speculative perspective in the game design, also remembering Donna Haraway's (2016) concept of *staying with the trouble*, as an alternative to capitalist accumulation narratives. With this, I present the suggested design principles for designing critical and speculative (alienated) games within a three-level framework and a case study of these principles on the collective game design for the critical educational game *Lithium*, which promotes democratic agency in a struggle against real lithium extractivism in Europe.

Extractivism (Acosta 2013) (Junka-Aikio and Cortes-Severino 2017), which I will understand as a state ideology and practice of extraction of resources from land without much concern for the environmental and social impact, as a tool of capital growth and in the name of sustaining capitalist modes of production, is a recurring game mechanism within almost all the games analysed in this dissertation and is also a common game mechanism in many other popular digital games. Therefore, we can perceive the concepts of player agency and performativity as part of current decolonial discussions or important perspectives in speculative fiction relating to the climate crisis, but also as an important element in the criticism of growth-oriented capitalist narratives.

The concluding case studies present the selected game discussions using a three-level heuristic framework. In the concluding sections, I also discuss my speculative fiction game art series *Dreaming about Work*, which accompanies my theoretical research with artistic research affordances that have helped me conceptualise the final heuristic framework, discuss and design the principles presented in the theoretical part of the game art and installation series that accompanied my thesis.

THE SCOPE

To summarise, this dissertation firstly examines exchange, ideological, and extractivist stereotypes, utilising them as analytical lenses in order to formulate a framework for radical and critical game design and art. Secondly, stemming from the analysis of these tropes, it provides a negative definition and scrutiny of problematic ecological, authoritarian, colonial, and exploitative tendencies in both mainstream games and games with critical aspirations. This framework has normative ambitions and inquiries into how to design speculative and critical games better. For this purpose, it formulates a three-level analytic framework oriented towards game exchange, alienation, and performative player agency to conceptualise the related design principles.

An heuristic method can be conceptualised as a practical problem-solving approach. In software programming, according to the paper by Zanakakis and Evans (Heuristic "Optimization": Why, When, and How to Use It 1981), heuristic means *to discover*, it is an analytical tool used to make it easier to solve complex problems; it can be used in situations where we have limited data, inappropriate models preventing single optimal solutions, where the method to solve problems is either not available or is not exact enough, when we need to improve the performance of problem solving or we can save time by using an heuristic method. Finally and most importantly, heuristic strategies can be applied in situations where they can help users (in our case players) *gain confidence* in their own approach to the problem (in the case of this dissertation, the limited scope of digital game imaginaries). Heuristic strategies play an important role in a range of fields, not only computation, and I hope the strategies discussed in this dissertation will help us to approach the convoluted areas of game exchange, alienation, and performativity, from new perspectives. Furthermore, according to the Stanford Encyclopedia entry on scientific discovery, heuristic methods “*are neither purely subjective and intuitive nor algorithmic or formalizable*”, as when approaching research we don’t need to only play puzzlersolvers, while with heuristics we can gain confidence as “*decision makers in complex, variable, and changing environments*” (Schickore 2022). The heuristic framework methodology is a tool aimed at discovering a strategy rather than an exact guide for operation. Here, it aims to discover new approaches to game fiction trapped in capitalist imaginaries rather than to solve specific problems. In the field of game studies, a heuristic framework can be seen as a lens to analyse the problem within the selected heuristic dimensions (Bódi 2023, 19), allowing

us to discover relations and ask questions in relation to the problem using the selected “*toolbox of terms and concepts*” (Bódi 2023, 43).

When constructing the heuristic framework, this dissertation does not provide an exact method for designing critical game experience. Similarly, capitalism is not the topic of this dissertation; it is the background of the limited imagination and speculation encountered within the studied games. In this dissertation, I argue that games are media that can speculate on and articulate a systemic (or procedural) alternative in a lively dialogue with players. However, to do so, critical work needs to be done first on both narrative and procedural levels, and within the exchange, alienation, and player agency frameworks. It is important to emphasise that this framework's perspective is fundamentally critical to capitalist production and exchange systems.

With this, I can finally rephrase the research question of this dissertation: *How to design speculative mechanics of game exchange that will allow us to ask the “what if?” questions beyond the allegorisms of capitalism.* In this regard, we need to consider forms of affordance of player agency within any given game design, since tight game affordances – game options to act within game market institutions, game rules, narrative allegories – will result in a lack of speculative game mechanics or straightforward ideological fantasies. The question of the mode of player agency is largely connected to the degree of power the players wield in each game, whether their agency is hegemonic in the game world, or whether there is a degree of agency shared with other actors (both human and non-human).

1. The Allegorithmic Politics of Game Exchange – Subversion, Ideology, and Capitalism in Strategy Games

In this chapter I focus on a search for alternatives to the economic fiction of mainstream digital games by analysing the turn-based strategy *Sid Meier's Civilization VI* (Firaxis Games 2016) and the real-time strategy (RTS) *Age of Empires II: Definitive Edition* (Forgotten Empires, Tantalus Media, Wicked Witch 2019). Alexander Galloway (2006, 90) argues that digital games always contain hidden allegorithms, intimate interfaces that players create in order to intuitively interpret the game's abstract algorithm.⁴ Specific allegories and game economies can, within their procedural rules, offer the promise of fulfilment of desire and a subversive dreaming of possibilities that we lack under contemporary capitalism. Consequently, digital games can have unique speculative, subversive, and critical potential.

The game scholars Darshana Jayemanne and Benjamin Abraham have investigated design strategies for ecologically oriented games in their seminal paper (Where are all the climate change games? - Locating digital games' response to climate change 2017), in which they note a similar mechanism that will be a central theme of this chapter: Strategy games which use “*environment as resource*” tend to convey an “*economic sequence*” where “*materials are smoothly and economically transformed*” into game units. Importantly, such strategic and even shooter games convey environment resources exploitation, but at the same time the player's body becomes a resource of “*attention, ability to multitask, [and] instantaneous trained bodily reaction,*” exploited similarly in order to continue or win the game (Abraham and Jayemanne 2017, 81-82). In such cases, the allegory of game nature can be described in numerical economic terms as 100 wood or 50 food(s) and serves as a backdrop for various forms of exploitative allegories and modes of gameplay. In this chapter I describe the mechanics of *game inner markets* and *game value exchange*, which have specific ideologies related to modes of production under capitalism. That being said, the analysis introduced here is conducted with an outlook for the possibilities of alternative game exchange paradigms, looking for non-capitalist and ecological speculation in critical game design and art.

I argue that to build on the speculative and subversive potential of digital games, we should analyse their economic systems, which often define the game's ideologies and their relationship to the player's work – the mode of exchange of game labour for progress through the game. Therefore, I focus on the analysis of the game exchange and its political fiction of capitalism - on two modes of game power fantasy: the ability to recursively plan future game situations and the ability to respond quickly to contingent crises in the game world. To utilise the critical potential of digital games, we have to examine their ideological contradictions by analysing the mechanics of exchange in their inner game markets.

4 Allegorithm is a concept originally coined by Galloway: "To play the game means to play the code of the game. To win means to know the [game] system. And thus interpret a game means to interpret its algorithm (to discover its parallel allegorithm). " (Galloway 2006, 90-91)

In the following text I will introduce the premises and method of my analysis as well as my conceptual framework. I will introduce an analysis of procedural fiction in the aforementioned two iconic strategy games. As such, the analysis in this chapter is relevant to the specific genre of strategy games, namely the real-time strategy (RTS) and the turn-based strategy genre of *Civilization VI*, also notably dubbed 4X by its creators, in which 4X stands for Explore, Expand, Exploit, and Exterminate, directly steering players towards the extraction and colonisation allegories present in the 4X strategy game genre. In the next chapters, I will extend the same methods to selected Role-Playing Games (RPG) in order to determine how game exchange and markets frame the ideologies and allegories present in games that employ a critical and subversive take-on capitalism.

PREMISES AND METHOD OF ANALYSIS

According to the digital media theorist Benjamin Bratton (2015, 224), digital games and our software in general offer specific persuasive interfaces. My first premise is that games and interactive digital simulations serve as interfaces of so-called positive feedback. This feedback can be understood as an inalienable reward for in-game activity and generally for work in digital software.⁵ For example, each action in *Sid Meier's Civilization VI* triggers an algorithmic response that delivers the feedback players expected according to their previous experience with this software. Similarly, each click on a custom unit in *Age of Empires II: Definitive Edition* can set in motion a series of events – players select a unit or building, and with the next click they can schedule their next action in the game. We encounter a promise that it is up to us, the players and interface users, as to whether the action will be effective or if we fail in our planning. In any case, a reaction is triggered that may be ideological from my perspective. The described interface promises a meritocratic reward for actions in simulation, in contrast with our social reality, namely capitalism, in which our actions may not bring any predictable result, or even run up against the limits of our material possibilities. The interface of positive response can be the vehicle of the inner ideology⁶ of digital games, since it is an interface based on the promise of a fair exchange of player labour for the software response.

Much has been written on the relationship between games and society (Huizinga 1949) and the political relations between games and labour (Caillois 2001). According to the game researcher Matt Garite (2003), digital game labour can be seen as an ideological advocate of the status quo of late capitalism. The game scholar Jamie Woodcock (2019) argues from a Marxist perspective that digital games, as one of the most influential contemporary media, translate the contradictions of capitalism as well as its modes of production, which have been defining digital games since their inception. According to Woodcock, games thus contain dominant capitalist ideologies, which have to be analysed in order for us to understand the relations between the *base* and

⁵ Inalienable rewards in terms of action and reaction that brings a clearly defined system response to the player and user. In digital games, this can typically involve earning experience points for actions performed in the game.

⁶ I will understand ideology in Marxist terms as the dominant social misconceptions that help to maintain the status quo of economic relations in class society. Such misconceptions will help given ruling class in various efforts, see Woff and Leopold (2021): <https://plato.stanford.edu/archives/spr2021/entries/marx/>

superstructure. Following on from Terry Eagleton: “*A Marxist critique of literature, and indeed of videogames, is part of a project to understand ideologies*” (Woodcock 2019, 110). This chapter will explore this notion further, emphasising digital game modes of exchange and their ideologies.

My second premise is the assumption that the analysed games, through their markets, engage in a wider social discourse. In accordance with Marx (Capital: Critique of Political Economy, Volume One 1990), the individual objects in the game, as well as our time, become objects of accumulation and market commodities, whose value is created by the labour we must perform to obtain them, along with their use and exchange value. In this sense, digital games reflect their developers’ and players’ ideas about economic systems, relations of production, and about exchange which are often utopian and normative – game algorithms pursue and depict the ideologies behind their algorithmic rules, game markets, and modes of exchange. The exchange value of individual game commodities is created in the community of players within the desire that arises from the feedback of players’ experience and the rules of the game algorithm.

Together with the growing popularity of digital game media, game commodities become increasingly interchangeable with real commodities and exchange value on the market outside the simulation.⁷ Therefore, in the following analysis of digital games I will distinguish between two concepts: the game’s algorithmic exchange rules – the *inner game market* – and their relation to the *external market*, where the value of game commodities becomes an object of status and desire. The Marxist conceptual framework and the labour theory of value are effective for the analysis of the inner game markets, their ideology and narratives, because game exchange and its algorithm is always a form of utopia, negation, and abstraction of capitalism.

At the same time, digital games often depict a form of repetitive labour which defines the game mechanics and cycles (Bown 2018). The third premise of this chapter is the assumption that game labour is framed by the algorithm of the game market, where players can exchange their game time for game progress. I presume that games on the one hand create algorithms of *utopian exchange* – a meritocratic creation of the abstract game value and surplus value⁸ from extracting and exchanging game resources, which are based on accumulation and the fiction of exponential increase of production. The second mode of exchange described in this chapter is *negative exchange* – a form of negation of individual capitals and commodities, the algorithm

7 This is mostly visible within today’s multiplayer oriented game monetization systems: where in titles such as Magic: The Gathering Arena (Wizards of the Coast 2018) or Red Dead Redemption 2 (Rockstar Games 2018) game offers various in-game items, and cosmetics on its numerous marketplaces for real currencies and not only for in-game accumulated value. In a similar manner singleplayer game titles such as (Firaxis Games, Sid Meier’s Civilization® VI: Gathering Storm 2019) and (Age of Empires II: Definitive Edition 2019) discussed here largely utilize selling expansions - DLCs (Downloadable Content packages adding new mechanics, units or story scenarios) to support development and expand the game after the original release. Furthermore, games can base their economic systems on harvesting player data or attention, for more see our piece with Ondřej Trhoň (Temporalities of open world work ideology: the case of Elden Ring and Genshin Impact forthcoming) and for example (Sicart, Playful Capitalism, or Play as an Instrument of Capital 2021). This was already the case with the early MMORPGs, namely in EverQuest, where players started to trade game gold for real money described in detail by Castronova pioneering research of game economies (Castronova 2001).

8 For the process of creation of surplus value in capitalism see (Marx 1990, 251).

of crises and conflicts of capitalism. Algorithmic exchange idealises capitalism, but it also contains its alienating tendencies and contradictions.

I understand the inner *game market* as a general set of rules for exchanging game commodities for game progress, and as an institution of an algorithm for exchanging game value in our interaction with the simulation.⁹ For example, gold in *Age of Empires II: Definitive Edition* can be exchanged for advanced military units, and has different use values for effective progress in different stages of the game. Its exchange value varies depending on whether it is currently available to the player, or whether it can currently be exchanged for another commodity in the game space. The number of successfully executed actions, converted to the time players spend producing a given commodity, determines its effectiveness, and thus its use value for advancing or winning the game. In this sense, the inner game market is a general algorithm that enables the exchange of in-game labour for game commodities.

On the other hand, the external game market ideally does not affect the course of the game. It could stand for external markets with various cosmetic or aesthetic enhancements of the game world or player character. A necessary aspect of such an external market would be the option of spending an external currency (attainable for real money). I will not expand on the problem of microtransactions for buying game commodities, as they do not play a significant role in the two analysed game ideologies. That said, we should note the differences between the value on inner and external game markets when studying games that employ them.

According to Marx the social character of real commodities is clearly visible in their exchange (Marx, *Capital: Critique of Political Economy*, Volume One 1990, 160-164). Their abstract value is created by their use value, exchange value, and the necessary labour time needed to produce them within the given context. Therefore, the exchange value of commodities ensues not only from the amount of labour and time, but also from the value we ascribe to labour in the given market in relation to its time, spatial, and production context, and to the socially necessary time needed to produce them. For example, gold in *Age of Empires II: Definitive Edition* has a variable value for players on the game map in different stages of the game, while having no value at all for non-players. The real commodity for exchange outside of the inner game market is ultimately the attention we as players devote while playing the game, or while wanting to play or just interact with the game. In this reading the games often follow the logic of the attention economy, drawing on Beller (*The Cinematic Mode of Production: Attention Economy* 2006, 28), as there is a value created by players' attention on the external game markets.

Game exchange refers to the exchange of effective player labour for game commodities and progress in the game. Game value is expressed by the social exchange value, see (Marx 1990, 164-165), in relation to the game's algorithmic inner markets. In *Civilization VI* and *Age of Empires II: Definitive Edition*, players temporarily become capitalists, directly accumulating the value of their labour. In the simulation, players may delve into a fantasy in which they briefly own the means of production and participate directly in the inner game market.

Having outlined the premises and the Marxist conceptual framework, we can move on to my own method of analysis. My method is based on analyses of selected aspects of the examined games and seeks to determine the following: (1) The specific mode of

⁹ See the general definition of markets in (Herzog 2021):
<https://plato.stanford.edu/archives/fall2021/entries/markets/>

interaction with the algorithm of the game – its rules of creation and accumulation of game value. (2) Possible forms of exchange of game value for progress through the game within the simulation. (3) Specific forms of the rules of the inner game market—its crises and the representation of the negative phenomena of capitalism—the emergence of surplus capital, the emergence of surplus populations, and a representation of the role of value speculation within the game exchange. (4) Whether the labour theory of value can be applied to the selected game, and more specifically how the surplus value is created within the rules of the game, and what role their social exchange value plays in relation to the use value of game commodities – in other words, the specifics of a given game ideology in relation to player labour.¹⁰ (5) If we can find answers to the previous questions, we can describe the specific form of game labour, exchange, and its ideological algorithm in relation to our fiction as free actors in the game simulation.

THE IDEOLOGY OF GAME EXCHANGE

The ideas of the ruling class are in every epoch the ruling ideas, i.e. the class which is the ruling material force of society, is at the same time its ruling intellectual force. (Marx and Engels, German Ideology Part I: Feuerbach Opposition of the Materialist and Idealist Outlook 1932)

For Marx and Engels (1932), ideology reflects the ideas of the ruling class, which not only owns and utilises the means of economic production, but also controls the means of cultural production. Ideologies can appear in today's digital games as the ideas we encounter in popular culture reflect the material relations in society. If we accept this assumption, we can assume that digital games are also a reflection of today's platform capitalism (Srnicek, Platform capitalism 2016), especially in a situation where game development is increasingly expensive and time-consuming. Game distribution is dominated by major digital platforms, and the means of today's game development are largely the products of the same digital corporations that inscribe their own beliefs into their narratives and economic systems. The dominant game mechanics of repetitive work, accumulation systems, and the paradigm of competitive competition may stem from these ideologies. In this chapter I examine the ideological allegories present in the

¹⁰ With this I am particularly focusing on how the game's rules generate surplus value and the relationship between the social exchange value and use value of in-game commodities. In essence, it explores the specific game ideology concerning player labour, by asking about the perceived role of player game labour in the formation of abstract inner game value.

Remembering the Ricardian labour theory of value where the amount of labour is seen as the basis of value, is often used as the condition for just and rational exchange on the markets. In the Marxist reading of value related to game economy we can rather think of monetary theory of value (where the value is based on various game currencies, and their relation to socially necessary player labour, use and exchange values. See section on Commodity fetishism in (Marx 1990) and for more on the role of labour in Marx's theory of value in seminal Michael Heinrich introduction to Marx (An Introduction to the Three Volumes of Karl Marx's Capital 2004, 65, 165). I use this relation as labour theory of value analytic perspective, as it is oriented to game ideologies that can paint relation within game accumulated value and player game labour as fair exchange.

inner game markets of *Civilization VI* and *Age of Empires II: Definitive Edition* in order to trace our relationship to the individual process of playing the two games and their ideological algorithms.

From the players' perspective, I understand game work as a conscious process of accumulating a critical mass of abstract value and effectively spending game time in the game interface for the purpose of progress in the game. The game economies of *Civilization VI* and *Age of Empires II: Definitive Edition* also include a utopian algorithm of a static economy with an open game market in which we can exchange accumulated game labour for commodities and values at any moment of the game. Price fluctuations, speculation, market crises, overproduction, and the emergence of surplus capital and surplus populations, which are - according to Marx - the accompanying negative phenomena of capitalist accumulation,¹¹ are only encountered in both games upon closer reading. The negative phenomena of capitalist accumulation disrupt algorithmic game utopias and construct a much more chaotic environment for game algorithms.

One such negative phenomenon linked to the accumulation of game work is gamification. In the article *Playful Capitalism* (2021), Miguel Sicart describes gamification as a new tool for labour extraction and exploitation. With gamification, digital platforms such as Amazon try to enhance employees' attention during repetitive work or even build artificially competitive environments among employees through custom-designed games and various rewards. Sicart uses the example of Google's application *Quick, Draw!* (Google 2016)¹² to show how the game rules setting and environments can be used to extract our information to train AI applications. Sicart understands *Quick, Draw!* as *ghost work* - unpaid proxy labour that enables the accumulation of value and profit for digital platforms: While interacting with game rules, we often cease to be critical of the processes behind the game. According to Sicart, digital games can serve not only as a means of ideology but also as a means of exploitative labour. By promising players agency and free choice in their systems that are constrained by game algorithms, games allow capitalism to mask "*cooperation with its logics*" (Sicart 2021, 6). Furthermore, the strategies for ethical games are complicated, as their ethics are networked problems concerning both narrative and ludic elements of game design, as well as players and their community's ethics, values, and histories, as asserted by (Sicart 2011). Sicart argues that the politics of digital games are enabled by this dialogue between the player's actions and the game design (2011, 122). This chapter further argues that the politics and ideologies of digital games are shaped by the algorithms of exchange which digital games employ. These are predominantly ideological constructs that need to be challenged in order to develop truly speculative or subversive digital games.

In *Persuasive Games*, Ian Bogost (2007) argues that games represent the world through interactions with processes. Digital games can therefore use *procedural rhetoric* based on interaction with a system of game rules, while also motivating us to understand these rules closely. This rhetoric does not have to be uncritical: Bogost illustrates the critical procedural rhetoric in independent game development with the subversive game

11 "[T]he rate of profit, is the spur to capitalist production [...] it promotes overproduction, speculation and crises, and leads to the existence of excess capital alongside a surplus population." (Marx 1991, 349-350)

12 In *Quick, Draw!* Players compete to quickly draw doodles according to the game's instructions, which are then scored by a machine learning algorithm.

projects developed by Molleindustria (Paolo Pedercini), which uses *procedural arguments* that question labour relations, emerging automation, and capitalism by employing explicitly critical rules. (Bogost 2007, 29)

In *Persuasive Games*, Bogost explores game mechanics concerning the notion of *enthymeme* – a rhetorical “*technique in which a proposition in a syllogism is omitted; [the player] is expected to fill in the missing proposition and complete the claim*” (Bogost 2007, 43). Bogost’s notion of enthymeme is associated with the game-specific notion of the *Simulation Gap* – the omission of the (often ideological) proposition of the simulation – which allows players to form an intimate relationship with the game. A critical enthymeme can be, for example, the *rhetoric of failure*. Games can advocate the status quo, but they can also represent how policies are failing - games can be “*critiques of dysfunctional political practice.*” (Bogost 2007, 85) Procedural rhetoric creates a *simulation fever* in the process. As games motivate us to closely experience their *explicit and implicit claims* about given systems and ideological positions, we inevitably encounter flaws in their logic. (Bogost 2007, 333) We imagine the game world within the game simulation, projecting our individual experiences and opinions into it. Although the simulation generates the world through an algorithm, we can modify it through our position when visiting it. Therefore, while playing digital games, we are engaged in synthesis, and not just with filling in a value sheet: We fill in the gaps between our own subjectivity and algorithmic processes.

The notion of procedural rhetoric is similar to Alexander Galloway's allegorithm. Unlike the allegorithm, however, procedural rhetoric presupposes a specific agenda of authors who purposefully create a game in order to represent their chosen propositions.¹³ In the following analysis, I prefer to work with the notion of allegorithm, which allows for an analysis of game ideologies based on false assumptions that are not clearly articulated in the selected games; they may be unconsciously inserted into the game's algorithm without a clear agenda or intention.

A further analysis of ideology in digital games and their relationship to technology is described in a recent paper by the game theorist Justin Kever. Its method is based on Althusser's notion of technicity – the dominant ideology as a technology that constitutes its subjects by linking subjectivity with technical being. This can be seen in our belief in free action or in our *agency* in digital simulation (Kever 2022). An analysis of game economics focusing on multiplayer games is also offered by the theorist Václav Janoščík in his *Dystopian Realism*. The game rules, in addition to translating the contradictions of capitalism, have become the key to understanding its economics. According to Janoščík, dystopias, utopias, and contradictions of contemporary capitalism are more comprehensible in games than in our everyday reality (Janoščík 2021, 160). My analysis aims at a less deterministic approach to game ideologies in relation to algorithmic markets and their allegories, considering the various possible player experiences and approaches: the possibilities of player agency in relation to game algorithms following on from (Sicart 2023).

13 See similar reference in Holmes (The Rhetoric of Videogames as Embodied Practice Procedural Habits 2017, 8) and concerning unconscious redesign of player habits by game following: “Consciously inculcating one habit (playing Tetris) can create nonconscious habits (eroding the desire to smoke) beyond any argumentative or epistemic aim of the videogame’s creators.” (Holmes 2017, 9)

UTOPIAN EXCHANGE IN CIVILIZATION VI

In the popular turn-based strategy game *Civilization VI*, you and other players control one of the selected game civilisations. Their choice freely follows historical state formations, but the choice of civilisation itself will only partially affect the game. From the perspective of the game algorithm, the choice mainly affects parameters and several variables that affect strategic priorities, the choice of unique buildings, military units, and the game soundtrack.¹⁴ The main game mechanics of *Civilization VI* are built on a cycle of decisions through which players expand their borders; accumulate scientific, cultural, religious, and economic capital; and increase the production of individual cities – the production of their buildings and citizens—which increases the total accumulated value of civilizational capital (the sum of all raw materials and production). In this way, players can expand the power reach of their civilisation by expanding production and exchanging it for new buildings, units, and cities.

Due to these game mechanics, the production and accumulation of game value in *Civilization VI* are created by the effort to exponentially expand the production of players' economies. In *Civilization VI* victory is always achievable by accumulating resources and by building individual extraction systems. The means of game value accumulation are located in the players' game work – interaction in the game interface, in which players slowly interact with selected game values through meaningful actions within the game algorithm. The accumulated values are then exchanged in the inner game markets for further progress through the game. The more game commodities players combine, the more their civilisation can accumulate to produce a greater amount of abstract value and production in each turn. To win, players must reach a critical mass of abstract capital while limiting the accumulation capabilities of the other players. According to McKenzie Wark, everything in *Civilization* becomes an interchangeable resource for the dominant form of the game economy, thus *Civilization* “is not so much an allegory for world history as an algorithm for gamespace itself.” (Wark, *Gamer Theory* 2007, 068)

(1) The mode of interaction with the game algorithm therefore lies in the pursuit of the growth of one's civilisation, which is partly satisfying also because of the need to recursively compare one's long-term strategy with the movement of other players and algorithmic actors; when beginning a game in the ancient era players start to expand the number of cities by producing settlers, who are sent to establish new cities in chosen locations. At the same time, players adjust their plans regarding enemy barbarians who automatically roam the game map and can capture unprotected settlers, loot farms and mines previously built by units of workers. A parallel threat is constituted by confrontations with neighbouring civilisations. From the beginning, the game recalls an imperialist race to capture as much territory as possible while maintaining production in existing cities, calculating the possibilities of one's defence, and searching for opportunities to attack other civilisations. A large territory will be difficult to defend and fill with economic infrastructure, while a small territory will not have enough strategic resources in the advanced stages of the game, and therefore will

¹⁴ This is a reduction for which *Civilization* has been criticized along with highly controversial imperial rhetoric framed by the need to constantly expand aggressively in the game (Galloway 2006, 96).

yield too low a value of civilisation production in comparison with other civilisations that are able to apply optimal strategies.¹⁵

(2) The exchange of accumulated game value for progress in *Civilization VI* is influenced by opponents and strategic locations on the game map. In the end, however, victory can be achieved by systematically planning the expansion of one's own production, considering the randomness of the generated map. Similarly, the game does not offer functional cooperative strategies – the real possibility of a peaceful victory in cooperation with all civilisations and actors on the game map. The essence of the game is always competition between individual civilisations and alliances. *Civilization VI* reduces all game actions to calculable values, allowing for further expansion. The linear accumulation of raw materials through their extraction is complemented by the static market on trade routes between cities, which is automatically conducted by units of traders travelling on the map. The static market in *Civilization VI* is further expanded by the dynamic market in barter diplomacy between competing civilisations, which allows the trade of strategic raw materials needed to produce specific units and buildings (iron, oil, uranium, and others), and luxury raw materials (tea, silver, silk, and others). Luxury raw materials serve to increase the overall happiness of one's own population, which ultimately increases the value of abstract civilisation production. At the same time, the barter market allows the exchange of other commodities, such as cultural artefacts or civilisation alliances and pacts.

(3) The specific rules of the inner market in *Civilization VI*, its crises, and negative phenomena are based on the convertibility of all game actions into game value. The exchange value of individual raw materials and commodities varies according to the demand and relative strength of the trading civilisations, and their use value is always convertible into points of the total volume of production in the game algorithm. Each successful action on the inner market of *Civilization VI* is convertible into a value for progress through the game – the same as the production system – and the simplest shootout between two archer units is converted to experience points for both units, which can have a decisive impact on their performance in the later stages of the game as it improves their parameters.

The mechanics of the inner game market in *Civilization VI* are based on linear game value production, specifically the value of accumulated resources and the production of citizen populations per turn. Players can exchange accumulated value for buildings, units, and other commodities, allowing them to create surplus value in the game's algorithm, along with the promise of enhancing the future production created by the original investment of extracted game resources in the game's cities and units. Player labour can be simplified as production planning and its subsequent exchange within the *Civilization VI* interface.

The negative symptoms of capitalism in the game can be seen within the framework of its expansive logic. Expansionist civilisations create surplus capital of raw materials and production in the territories they dominate, forcing others to play similarly aggressively. On the other hand, the logic of exponential growth of game cities does not include the emergence of surplus populations; each game citizen has value throughout the game. Not surprisingly, the absence of the allegorism of surplus populations consists in the aforementioned convertibility of all game elements into

¹⁵ In this sense the game territory takeover in *Civilization VI* and *Age of Empires II: Definitive Edition* is a representation of primitive accumulation.

abstract value that is always ready to produce game capital as, unlike in a real capitalist economy, there are no game units standing outside game value creation. The role of value speculation in *Civilization VI* is hidden at first glance, but it is precisely because of the convertibility of individual values into abstract capital that we can say that capitalist fiction ultimately frames the exchange in *Civilization VI*. It is a utopian form of speculation in which money is exchanged endlessly, with surplus value being added to the system based on the game's algorithmic rules, invested game capital, and players' game work. The speculation about the endless growth of game civilisation is an allegorism of utopian exchange and the fiction of the automatic creation of surplus value. *Civilization VI*'s utopian inner market is continually disrupted by various contingent crises due to the nature of the map, the struggle with barbarians, and negative exchange with hostile civilisations.

(4) Based on the linear mechanics of utopian exchange and exponential growth in the game speculation, we can apply the labour theory of value to the *Civilization VI* allegorism, where the abstract value of progress through the game depends mainly on the amount of time players spend in the game (our game work), on our ability to use and exchange game time efficiently, with the specifics of the generated map (our production means within the simulation) and other actors on the map.

The expanded version of the game, namely *Sid Meier's Civilization VI: Gathering Storm* (Firaxis Games 2019), provides an example of the educational potential of strategy games based on systemic planning. The expansion introduces new mechanics of climate change to *Civilization VI*: players have to fight the impact of climate change starting in the industrial and modern eras and have to try to reduce emissions caused by coal and oil extraction. The *Gathering Storm* expansion is one of the few games depicting ecological and civilisational crises as existential problems that must be systematically addressed for the progress of the game. The *Gathering Storm* expansion is also original in this context, as it introduces the need to consider a game map as a living organism. Impending floods, volcanic eruptions, or changes in ecosystems dynamically affect the game agriculture and production based on players' previous actions.

At the same time, *Gathering Storm* introduces new conditions for diplomatic victory, which consists in accumulating a critical mass of diplomatic victory points that players earn for helping other civilisations in the fight against natural disasters or aggressive wars. Diplomatic points can also be earned for tackling a crisis, or if one's own civilisation is elected a world leader at a congress of civilisations. In this respect, diplomatic victory may be seen as an allegorism of cooperation, but ultimately it remains an allegory of power hegemony based on the critical mass of a certain capital. The issue is that the game fails to go beyond the implicit expansive logic of the game cycle, visibly based on an effort to increase the volume of accumulated game value per turn.

(5) The game resources that players operate within *Civilization VI* are abstract and interchangeable, thus contributing to a reduction in all game activities to an interchangeable accumulation of resources necessary for victory. Culture is reduced to a strategic resource interchangeable with the output of industry, or perhaps with the accumulation of gold, which allows players to quickly purchase various units and pay for their maintenance. As such, everything we encounter in a game map is perfectly converted into commodities. In my analysis, the inner game market in *Civilization VI* is at the same time an allegorism of work, colonisation, and industry under capitalism, which represents the performance of the citizens of game cities as well as the degree of their industrialisation as an extractable and exchangeable value. A similar reduction to

abstract exchangeable values in *Civilization VI* relates to culture, science, and the entire game map, which becomes a battleground for expansion and extraction.

NEGATIVE EXCHANGE IN AGE OF EMPIRES II: DEFINITIVE EDITION

Age of Empires II: Definitive Edition is a popular real-time strategy game (RTS) that builds the mechanics of the game cycle, and its mode of exchange of game work for progress it is based on the need to quickly respond to opponent tactics on randomly generated maps. In the competitive skirmish game mode considered here, players have only one condition for victory: destroying enemy buildings and units. Progress through the game is based on exchange in conflict with the enemies. To win, players accumulate critical capital of the value of units and buildings while extracting map resources.

As in *Civilization VI*, the choice of the player's civilisation at the beginning of the match in *Age of Empires II: Definitive Edition* is a matter of the unique characteristics and parameters of units, buildings, and civilisational technologies, rather than significant gameplay changes. From the beginning of the game to its late stages, players constantly produce villagers (game workers, gatherers, and builders) to keep their economies competitive. At the same time, players build structures and units, expand their influence on the map, and strategically decide whether to quickly advance from the Dark Age to the Imperial Age or try to attack opponents and their economy as soon as possible.

(1) The production and accumulation of game value in *Age of Empires II: Definitive Edition* is based on the constant optimisation of unit production and on the most effective control of actions on the game map. Villagers can build new structures and extract map resources; players can then exchange those resources for units that allow them to gain control over the game map. The algorithm of this contingent game time, filled with various crises, requires precise timing of the production and micro-management of units. If players lose focus on and precise control of their units and buildings at any moment in the match, their economy will slow down and eventually stop producing resources. The number of idle villagers will begin to grow, and the production of resources necessary for the creation of new units will be interrupted. Maximising production in *Age of Empires II: Definitive Edition* requires immediate and optimal exchange of accumulated resources for game units and structures, along with planning the construction of advanced buildings and research in the near future. The production and accumulation of game value are based on a combination of players' ability to react quickly and efficiently, predict and adjust strategies for winning the game, and know its algorithm and parameters.

Compared to *Civilization VI*, the ability to play *Age of Empires II: Definitive Edition* is even less dependent on understanding the game's algorithm in relation to history. The intuitive control of the game is an allegory of the simulation, dependent on the ability to react quickly to a changing situation on the game map. The historical setting serves as a backdrop related to the game's algorithmic rules regarding the visual design of units, buildings, and overall aesthetics. This does not reflect the different political and economic systems of history. In *Age of Empires II: Definitive Edition*, there is always one dominant paradigm of exchange; the accumulation of game value is an allegorism of the simulation rather than an algorithm of history.

(2) The exchange of game work for value in *Age of Empires II: Definitive Edition* is possible via a similar form of utopian exchange as in *Civilization VI*. Nevertheless, it is complemented by a dominant form of negative exchange; in an exchange of economic output for units which are destroyed in combat with enemies. To progress through the game, one needs to effectively exchange military units in skirmishes with enemies on the game map. If your attention lapses for a moment and for example you accidentally lose 20 archers to enemy mangonel catapult fire, you will lose a precisely calculable quantity of resources: exactly 500 units of wood and 900 units of gold, or the cost of resources paid to produce the archers, against 160 units of wood and 135 units of gold, the production cost of an enemy mangonel. In the inner market of the game, you have just lost the exact value of game resources, and the opponent has negatively gained a certain value for advancing through the match at your expense. At the same time, you have also lost the time and other game resources that you have used for training archers – part of the value needed to build an archery range, the resources spent on research into better arrows, recruitment time, and the number of mouse clicks that you could have alternatively devoted to maximising production.

As in chess, a disadvantageous exchange costs you a loss that you will only be able to compensate for by attempting other profitable exchanges. Alongside economics, game warfare is the most important exchange mechanism in the algorithm of the game. In parallel with the linear maximisation of production, unit skirmishes are a form of negative exchange and loss of value between the players. Resources that are lost by destroying game units will never reappear on the game map, and the work you have expended while interfacing within the game is lost forever. At one point in the match, these values were used to temporarily tip the balance between the players' progress on the map, but they finally disappeared in a negative exchange.

(3) The rules of the inner game market in *Age of Empires II: Definitive Edition* ranges between cycles of utopian and negative exchange. Players' actions in the game are determined by the location of map resources – food, wood, stone, and gold – along with the movement of their own and enemy units. Regarding the game map, players benefit from currently available and efficiently exchangeable resources. Food is essential for the expansion of the economy, the production of military units, and villagers who can expand the extraction of resources and construct new buildings. In this way, villagers produce surplus value from the original resource investment (50 units of food) required to produce one villager. Individual buildings unlock advanced units, allowing players to gain control of the map in the later stages of the game. The resources on the map are gradually depleted. First stone, then gold, and in the long games players run out of wood, which is necessary for food production.

The marketplace, a building that allows for the exchange of resources, is open to all players from the feudal age. Fluctuations in individual prices against gold can be rationally predicted and calculated based on the course of the game. Estimating the moment of exhaustion of other players' resources allows one to gain a strategic advantage and at the same time determines the maximum length of a match between two players.¹⁶

16 In team multiplayer matches players use a marketplace for trading with allies. At that moment, the marketplace begins to generate a steady supply of gold, which is exchangeable for other resources. It is significant that even in the *Age of Empires II: Definitive Edition* players have the possibility to make the economy independent of the game map. At this point, if players are able to sustain trader caravan units, the gold generated from trade (If player completes successful journey of a trader unit between marketplace owned by player A and another marketplace building owned by player B), Gold can be used to buy wood, stone,

Unlike in *Civilization VI*, the game map quickly turns into an empty wasteland by mining the game's resources. In this sense, the contingent game time and mechanics of crises created by resource extraction and negative exchange on the game map can be considered a more critical allegorism of the current ecological crisis.

(4) The most disturbing moments in *Age of Empires II: Definitive Edition* occurs when players use optimal strategies determined by the game's algorithmic rules to maximise the effectiveness of their play, specifically the moments at which they raid the economy of their opponents by killing unprotected enemy villagers. A similar role is played by excess capital – the moment when players capture and extract resources – that they cannot consume efficiently to prevent their extraction and use by enemies. Even a scarier is the situation in the late stage of the game, when experienced players kill their own villagers to make room in their population limit for the maximisation of their army. Therefore, we can perceive the game population limit as another resource – an allegorism of an excess population that otherwise does not suffer from ageing; its parameters are life points and exchange value. In *Age of Empires II: Definitive Edition*, we can observe the allegorism of the game exchange, which not only reduces the map to a network of tactical points and extractable resources but also reduces the game villagers and military units to mere resources producing surplus value from their original price if players use them effectively. The labour theory of value can be applied here again as feedback between the game's algorithmic optimal strategies and players' submission to its allegoristic reductions.

The speculation in *Age of Empires II: Definitive Edition* aims towards an image of a dystopian future on the exploited map, as described above. The only solution that can prevent a dystopian late game here is to win quickly or to stop mining resources, producing troops, and exchanging them in conflict with other actors. However, this would mean stopping playing. Unlike the utopia of exponential growth in *Civilization VI*, *Age of Empires II: Definitive Edition* conveys a crisis time of negative exchange. Units and resources quickly disappear from the map, and playing the game translates into extracting the game map.

(5) The allegorism of negative exchange creates a crisis game environment, in which players repeatedly build and lose game units. Concerning player experience, as in *Civilization VI*, the time spent in the game and knowledge of its algorithm are crucial. In addition to planning, contingent time requires the ability to react quickly and accurately; the total value of players' actions is measured by their ability to capitalise on their attention and energy within the game interface.

Age of Empires II: Definitive Edition requires maximum concentration throughout the game. Part of the pleasure of playing it is the ability to improve gradually – the ability to focus on longer games and to produce and exchange game value more effectively. The RTS genre builds game cycles on player attention and reflexive memory rather than the pleasure of long-term planning. The pleasure of playing *Age of Empires II* consists in the fantasy of the ability to respond quickly to the simulation's contingent environment and in the fantasy of perfect execution of the pre-learned game strategy. The pressure on players at the limit of their cognitive capacity or fear of losing the

or food at marketplace (which will magically appear in player resource stock) and can be then used to sustain economy if further growth is desired by player. This is illustrative of speculative moments where the game rules disconnect from strive for historic realism.

forced economic pace in *Age of Empires II: Definitive Edition* constitutes its crisis time and ideological algorithm.

INTERFACES OF IDEOLOGY

The different modes of focus, contingent and recursive game time, distinguish the ideologies of *Age of Empires II: Definitive Edition* and *Civilization VI*. The fast gameplay pace of *Age of Empires II: Definitive Edition* offers a fantasy of contingent response in within a short space of time, unlike the recursive fantasy of future planning in the expanded historical horizon of *Civilization VI*. The mode of utopian exchange enables the allegory of slow planning to accumulate and build a utopian vision of a future of capitalism, growing and expanding beyond the Earth and further into space. On the other hand, the allegory of negative exchange forces an accelerated dystopian time of competitive struggle – it is a dystopia of capitalist exchange: an algorithm of loss of value if we cannot keep up with the pace of the game.

The digital game critic and theorist Jon Bailes (2019) offers an original analysis of neoliberalism against the backdrop of ideologies hidden in interactive simulations of game cities and their power fantasies. According to Bailes, the failure of games to define the background of the alienated relationship between game actors and capitalism is related to their inability to escape the demands and configurations of neoliberal ideology. The feeling of failure returns regularly within the game cycles because the game is unable to critically define the background of the problems faced by its heroes. These are illustrated by various unrealistic demands of neoliberalism which fit the ideological notion of being a rational actor on the market, which simply contradict the limited options of material reality. According to Bailes games, therefore "*function as ambiguous responses to neoliberalism*" as "*they simultaneously criticize existing social conditions and reaffirm certain common assumptions about how the world works.*" (Bailes 2019, 5)

Both game maps of *Civilization VI* and *Age of Empires II: Definitive Edition* are algorithms of the real world, reduced to points with a clear function, depicting a seemingly unrestricted space of accumulation. In a broader sense, they are framed as strategic maps of the territory rather than a living simulation of the world. The analysed games simulate game work with an uncertain outcome: pleasure comes mostly when we win. Otherwise, the simulation frustrates us, as in the case of real work. *Age of Empires II: Definitive Edition* and *Civilization VI* are interfaces of contemporary capitalism in this sense – interfaces of an ideology whose rules are influenced by both a utopia and a parallel dystopia of exchange. The game ideology is expressed in the responsive procedural interface of the analysed games. In this context, the interface can be perceived as a responsive game map with actors, ideological allegories, and effective strategies necessary for successful progress through the game. Of course, it is possible to play subversively, non-violently, or even ecologically, but the game algorithm encourages players to play aggressively, and its rules frame the game in the constant necessity to expand and maximise production for exchange on the inner game markets for progress through the game.

CONCLUSION AND STRATEGIES OF ALIENATION

The static nature of utopian exchange in open game markets raises the question of why predominantly utopian and negative fictions of exchange are depicted in both the game narrative and procedural game mechanics. My first argument is that this is because both games function as advocates of two radically different realities of late capitalism: the utopian fantasy of endless capitalist growth and the negative fantasy of solving crises through war and conquest. They represent two fantasies of exchange. *Age of Empires II: Definitive Edition* is a fantasy of being able to react instantly to contingent crises and events on the game map, whereas *Civilization VI* is a fantasy of the ability to effectively plan and exchange over a long historical period. The possibilities of another speculative exchange in which individual values and actors do not influence game progression, or even at certain moments stand as free actors outside the exchange framework, are missing in the two examined games. In both games, we rather play a mode of idealised capitalist labour. The problem is that these narratives unconsciously reproduce alienated labour and exchange instead of offering an alternative narrative or a possibility for speculation.

The first premise of this chapter was that games are persuasive interfaces of a positive response – an inalienable reward for in-game actions. The form of utopian exchange analysed in *Civilization VI* is the means of this interface and its positive allegories. Negative exchange is its negative allegory, which brings into play more realistic allegories of exploitation, loss of value, and destruction, with limited critical potential. In the end, however, the game economies analysed above are ideological algorithms of capitalist exchange. The capitalist negative allegory, the negative exchange illustrated in the example of *Age of Empires II: Definitive Edition*, is based on a competitive economic pace that does not offer inalienability to game value, but works with the explicit possibility of negating any value in the game space. We can achieve a positive response of the game algorithm in a negative exchange if we can keep its pace, which complements the ideological algorithm of utopian exchange.

Based on the previous analysis, we can defend the other two premises about the blending relation of the game space and game work on the inner game market. The analysis showed that it is possible to apply the Marxist perspective of the labour theory of value in both games if we adjust it for inner game markets – game abstract value and surplus value are always associated with our work in the game interface, but are not wholly defined by it; the value is based on the algorithm or rules of game exchange. That is, the application of the labour theory of value to both games' perceived exchange promises a just reward for game labour, or from a critical perspective a deceptive simulation gap that in fact constructs game market ideologies. We can see this in both games, as part of their ideologies is both a procedural and narrative algorithm that paints the game rule system as a fair exchange between all game actors. An example of such an ideological ethos is the promise that each game actor would start with similar resources, and the matter of winning will be a matter of literacy of game rules along with the skill with which players are able to plan for future accumulation and manage procedural contingencies. Finally, the value relations in both games are always monetary, as the value of player labour depends on the relations between simulated currencies, enabling access to resources and unit production within algorithmic game rules. Player game work and literacy of the game complement this procedurally on the level of optimal play and on the algorithmic level of player construction of the resulting game ethos, based on literacy of its procedural aspect and narrative.

The rules of exchange on the market of both games are also influenced by the ideologies of positive and negative exchange. They depict a utopian and, in the case of negative

exchange, a dystopian form of capitalist exchange. The analysis showed that despite the fact that the rules of both games depict the alienating tendencies and contradictions of capitalism, the criticism in these games remains ambiguous, hidden within the accelerated game market, and in the exchange of game work. Both games' critical and speculative elements remain merely supplements to the prevailing exchange and value accumulation paradigm, as we saw in the expansion of *Civilization VI: Gathering Storm* and its inability to systemically depict the cooperative strategies required to address the climate crisis.

In conclusion, subversive and speculative game narratives cannot simply be based on a capitalist or neoliberal prototype of the exchange of game labour for progress through the game. Successful strategies in such games will tend to repeat the alienating narratives of accumulation, exploitation extraction, and competition. To create radically speculative games, we must employ radically different paradigms of exchange and market rules or a more consistent critique of those mechanisms – we must look for new directions or vectors of game exchange.

The Marxist conceptual framework proved to be an effective method of analysis precisely because it can identify the internal relations of game markets regarding the position of player, her alienation in the game production relations, and their allegorical ideology. The algorithmic game interface connecting the algorithm of game economy and ideological fantasies is a means for simplifying the control of the complex mechanics of the simulation algorithm; it helps players define the way they relate the game algorithm to the reality outside the digital simulation. Simultaneously, game rules, algorithms, and ideologies act as models through which we can discuss possible positive player agencies. I argue that this takes place when the ideology of the player agency is concealed in both games' modes of exchange. In the next chapter I will expand upon this by focusing on the notion of player alienation in order to explore a direction for designing and playing with speculative game exchange that could serve as alternatives to the prevailing capitalist game ideologies.

2. Towards Alienated Game Exchange Theory: The Politics of Alienation and The Modes of Players Agency

In the previous chapter I examined the prevalent exchange modes in strategy games. The utopian exchange from *Civilization VI* and the negative exchange of *Age of Empires II: Definitive Edition* can serve as stepping stones for an analysis of critical or popular games. This analysis focuses on game economic systems with their distinct rules and ideologies, and I will further argue that we can use a similar analysis to explore role-playing narrative strategies in relation to inner game markets. In this chapter I want to conceptualise a number of strategies of exchange that can serve as subversive, critical, and speculative alternatives to ideologies and narrative algorithms of capitalist exchange. This can be achieved by focusing on the shortcomings of these economies and narratives. However, here I will start to focus on the possible construction of critical game economies based on a discussion of player agency (Bódi 2023) (Sicart 2023) and its connected alienated modes of exchange. These strategies can be employed while working critically within modes of negative and utopian exchange, and not only by working beyond those modes.

The economies of popular and even of most critical games remain a highly simplified capitalist market fiction. They are unrealistic not only regarding the economics of today's capitalism, but are also contradictory in their idealised fiction of exchange. In the analysis of the two iconic strategy games in the last chapter, I have discussed negative exchange as the dominant mode on the inner game market of *Age of Empires II: Definitive Edition* and utopian exchange as the dominant mode of the *Civilization VI* markets. Negative exchange is the market fiction of competition, extraction, and exhaustion of different capitals and values disappearing from the gamespace. Utopian fiction, on the contrary, is a fantasy of endless growth of accumulation and of never-ending improvement of accumulation capacities, where values are never exhausted or destroyed. Therefore, games often reflect the market or labour relations of the present society, which can be illustrated by the ideological allegories of the strategy game genre: mainly its top-down management of units, where players project their power onto characters in a gamespace that rarely shows their own agency.

Players often encounter similar authoritative control, as their agential possibilities are bound and guided by the game rules, and they often take on different class roles in digital games from the ones they encounter in everyday life. In the previous examples of strategy games, players play the role of authoritarian rulers rather than serfs, employees, or workers and citizens. Strangely enough, this allegory of class alienation is rarely directly thematised in the narration of strategy games and is used as a standardised trope across the genre rules with few exceptions, as in *Frostpunk: The Last Autumn* (11 bit studios 2020), where players can be deposed from their position of authority if they fail to navigate their workers' desires.

The concept and allegories of alienation are often missing from game exchange in popular games, and consequently they lack critical approaches to the social concepts of class structure (Chibber 2022), distinct modes of labour and employment under capitalism (Marx 1990), the imperative of improvement (Meiksins Wood 2002), or social acceleration (Rosa 2013). In general, what is missing from the strategy games perspective is the concept of alienation. I will focus on its possible use for the

forementioned critical exchange with the concept, while demonstrating its use in the case of two rather critical games, *Death Stranding* (Kojima Productions 2019, 2022) and *Citizen Sleeper* (Jump Over The Age 2022).

ALIENATION

In this chapter I discuss two concepts of alienation. The first is the concept of historical objective alienation in Marxism, which generally refers to the detachment and separation that workers experience from the processes and products of their labour under capitalism (Leopold 2022). To understand this concept we can consider that it is historically connected to the processes of primitive accumulation, which can be understood by dividing it into *so-called primitive accumulation* and *real primitive accumulation* in accordance with Meiksins Wood's *Origins of Capitalism* (2002). Importantly, the historical alienation of workers under early capitalism in the 19th century was a consequence of real primitive accumulation. If we follow on from the interpretation of Marx's genesis of capitalism in *Capital* (1990) by starting with the process of "*prior accumulation of capital*" needed to build a sufficient mass of wealth to produce commercial capitalist relations (Meiksins Wood 2002, 30-31), this "*so-called primitive accumulation*" (Marx 1990, 874-875) is present in all stages of *Civilization VI*, as is real accumulation facilitated by "*colonial exploitation and unequal exchange*" (Meiksins Wood 2002, 36).

Take the following historical excursion: According to Meiksins Wood, capital is a relational concept based not only on wealth but also on a new form of social relations and on the capitalist imperative of improving of productivity. Capitalism brought about the need to transform property relations and introduce wage labour¹⁷, focusing on the creation of capital – a value set aside in the production process to improve or create further surplus value in future. At the same time, the paradigm of improvement asserted by rural capitalists and industrialists also brought about the need to transform land ownership and ownership of the means of production. This alienated the newly formed urban proletarian populations that had migrated from expropriated land, who therefore lost direct contact with the products of their labour (Meiksins Wood 2002), their shared or private wealth, and their previous social relations, namely by violently curtailing women's rights and fencing off common land – the privatisation of shared land without prior direct ownership (Federici 2021).

Finally, the early accumulation of capital brings us to the process of "*real primitive accumulation*", which stands for the full transfer of land ownership to the new capitalist class along with the means of production. Primitive accumulation created a need for wage employment for the mass of newly alienated labourers, now migrating to the cities after being uprooted from their communities (Meiksins Wood 2002, 36-37). In this process, the members of the lower class, who were formerly direct producers, consumers, and owners of the land, are alienated from it and are (along with prior feudal *serfs and slaves*) transformed into workers (Marx 1990, 927) who are alienated from both the products of their labour and the means of their production.

Notably, wage labour is missing in both the previously discussed sets of strategy game rules and the mere notion of ownership of land – in the economic fiction of *Civilization*

¹⁷ That is distinctive from previous feudal and mercantilist modes of employment, production, and labour. Which were centred around feudal serfdom, direct production and consumption, or trade in mercantilism.

and *Age of Empires* the land is by default up for grabs for the players, similar to any rights of their units of serfs and workers. If we compare the above excursion with the digital game rules and concepts, for example, of strategy games and specifically of *Civilization VI*, we can state that it is clearly a capitalism-inspired game. However, it only simulates a few aspects of capitalism: from the beginning of the game in the ancient era, players focused on the improvement of resources and the improvement of accumulated capital per turn.¹⁸ However, *Civilization VI* tends to ignore any allegory or depiction of the primitive accumulation, or the historic transformation of social relations, land ownership, or forms of labour and employment. In this sense, *Civilization VI* supposes that capitalism is an ahistoric form of social relations, which constitutes its ideological message, as discussed in the last chapter and previously in (Wark 2007) and (Galloway 2006).

As shown in the first chapter, every process in *Civilization VI* seems to follow the logic of so-called primitive accumulation, where the basis of wealth or surplus value is created only by capital and can be reached by extraction or the improvement of extractive systems. Importantly, the game allegory in question fails to depict the changes in social relations that have occurred because of political and economic transformations throughout history – the alienation of real primitive accumulation – or the role of worker subjectivity, which is reduced to another resource and potential capital for improvement. To put it differently, *Civilization VI* alienates workers at the level of gameplay, but the allegory of alienation is not part of its narrative. The game reduces simulated workers to resources by not centering the narrative around the subjective level of alienation and by shifting to a managerial and authoritarian perspective, falsely depicting capitalism as the natural order of things by ignoring the history of workers' objective alienation.

To illustrate this beyond the pure economic terms of gameplay, we can briefly focus on Civilization VI's narrative that can be read within texts of policies and civics descriptions, which form the gameplay mechanics closely resembling a technology tree found in the research tab. Although Civilization VI's policies and civics include unlockable social perks and a technology tree text descriptions that references slavery, feudal serfdom, colonialism, and early capitalist industrialisation, they omit references to primitive accumulation, expropriation of land, or the curtailment of women's reproductive and labour rights, all of which are historically connected to the transformation to capitalism. As a result, history in the game is depicted as a never-ending process of colonisation, extraction, and improvement, which is an image of a strangely ahistorical status quo, painting capitalism as the natural state of affairs and not as a historical development. This image ignores various social relations throughout history, which include modes of labour, wage employment, gender equality, and different relationships to land and nature, as well as the negative side effects of capitalism. There is no real change in social labour relations either for players or playable characters (units and cities): Both players keep their authoritarian perspective even when the game seemingly depicts democracy. Playable characters are subjected to a utopian exchange of so-called primitive accumulation throughout the entire game's fictional history. This particularly omits the economic, violent, and social forms of alienation particular to capitalism.

If we follow Meiksins Wood's reading of *primitive accumulation*, strictly differentiated from *so-called primitive accumulation*, we can conclude that the players in digital games are rarely truly alienated within the capitalist modes of social and production

¹⁸ This is capital, not mere wealth, because each value will be immediately reinvested in a further improvement of value gained in the next turn.

relations. Rather, they are utopian direct consumers of the values they create, or they experience colonisation, exploitation, and extraction of *so-called primitive accumulation*. In strategy games such as *Age of Empires II: Definitive Edition* and *Civilisation VI*, players experience these mechanics from the perspective of extractors, colonisers, or feudal lords. This is within authoritarian agencies framed by the ideological allegories and algorithmic rules of the chosen games.

We can ask what causes this absence of allegories of the social relations introduced by capitalism, despite the progressively alienated social reality. The first brief answer could be that this partial de-alienation of feudalism and imperialism is somehow an empowering ideological fiction, a de-alienating narrative fostering player agency. A second possible brief answer would be that showing real primitive accumulation and progressing, objective alienation would simply be too depressing and not fun game mechanics. However, the concept of alienation does not necessarily stand for negative narratives; it could also serve as an empowering fiction, fostering positive player agency in RPG games, such as in *Death Stranding Director's Cut* (2019, 2022) and *Citizen Sleeper* (2022).

Death Stranding is a game set in a fictional eco-horror crisis, following the sixth mass extinction. By playing as Sam Porter Bridges, players take on the role of couriers traversing the wilderness while delivering packages to the remaining denizens. Importantly, the game is played from a worker's rather than a managerial perspective and thematises the role of Sam's alienation towards his employers, the emerging post-extinction corporate state of *the United Cities of America (UCA)*.

Similarly, in the fiction of *Citizen Sleeper*, players take on the role of a runaway android exploited by the company that originally assembled it. In this sense, *Citizen Sleeper* is a story of fighting alienation by day-to-day labour and at the same time by means of one's own company-owned body. These two narratives of alienation build the general atmosphere of alienation that players experience at the corporation-run space station, together with a simple survival game economy that often thematises the gift economy, redistribution, and solidarity. These games openly use narrative strategies with player alienation in the modes of allegorical production of game value, as well as with various forms of narrative estrangement.

Objective alienation in Death Stranding

Both *Death Stranding* and *Citizen Sleeper* openly incorporate alienated ownership of commodities – and of one's own body – along with economic critique into the gameplay mechanics and narratives, while still focusing on quite common forms of value accumulation and extraction in the modes of negative and utopian exchange. To illustrate the possible use of objective alienation motives in *Death Stranding's* inner market, we may consider the following 20 minutes of gameplay:

I begin by checking my active tasks, and in Death Stranding my main occupation is delivering various supplies and commodities across post-sixth mass extinction America. My goal is to connect the remaining denizens and cities in a chiral network: a both material and information infrastructure grid, resembling a combination of our 3d printers and the Internet. While my route across disconnected America geographically follows the settlers' colonisation and conquest of the North American West (Jayemanne, Keogh and Abraham 2022), it is visually and geographically based on a sci-fi take on the Icelandic landscape. My current delivery orders are mostly standard, but importantly, I have agreed to gather packages of lost minerals scattered around a nearby waterfall. I also have a few extra orders for the denizens: I should

deliver premium underwear for a Chiral artist along with hand-softening crème for South Knot City. If I can complete the orders, I will receive likes from both the Chiral artist, South Knot City, and from my employer, the United Cities of America UCA. I have already gathered 116773 likes in my gameplay so far – they are nice to have, but they also automatically level up my character's abilities to sustain heavier loads as Death Stranding is true to RPG genre mechanics, even though there is no visible character sheet that would spell character strength, dexterity, or intelligence.

All I must do after collecting the packages is drive my truck across the water and the rocky cliffs surrounding it. I opened my map and determined the best possible way across the river beneath the waterfall. The route is a bit tedious, but finally I manage to navigate my truck across the water and later slowly jump over the cliff edge behind it. After that I am soon able to find the remains of the highway, leading straight to the city. Along the way, I enjoy the vistas and contemplate various ladders, ropes, jumping pads, and the general infrastructure built by other players, which would possibly help me navigate nature. In the 8th minute of my gameplay, I arrive at the South Knot and deliver the cargo. I receive another bunch of likes and, along with that, I can unlock new available delivery assignments to nearby denizens. By finishing the 'waterfall' delivery I have made the chiral connection with South Knot City stronger, and I have therefore unlocked new technologies: An armoured truck and a better pistol which can be printed on demand by my company to make my future deliveries easier.¹⁹ Finally, the statistics screen about my completed delivery pops up, and I can follow various graphs concerning my route, time, and state of cargo performance. I briefly rest in my underground apartment in South Knot provided by the company. In the morning, I took new orders and proceeded to complete the delivery for the Chiral Artist.

As shown in the gameplay above, *Death Stranding* uses RPG genre character levelling up and exploration tropes, but it does so in a setting in which almost every action seems to have a socially critical charge. Besides its narrative of establishing links with disconnected denizens, practically isolated in their dwellings, dependent on deliveries and the company-owned chiral/internet network – a moment that was particularly chilling at the time of the game's release at the beginning of the Covid-19 pandemic – even the body of Sam is ultimately a company asset partaking in an eerie closed-circuit company economy, a theme which is later extended in the game story.

By contrast with *Citizen Sleeper*, *Death Stranding* is not an independent game created by a small team of creators, but it is still able to use alienation in almost every game system and could be seen as a criticism of not only highly disconnected worlds but also of alienating work for corporate platforms such as delivery companies. Along with narrative strategies reminiscent of Brechtian estrangement centred around the game economy, it employs almost situationist strategies for movement across the game map, a notion of walking which is the core mechanic of the game. The *Death Stranding* economy uses both utopian and negative exchange, but it can build a critical narrative by highlighting the alienation of both the protagonist and the game world.

Therefore, I argue that critical or speculative mechanics in games should not ignore alienation in capitalist exchange. They can build narratives and alternative modes of exchange through alienation. Similarly, the concept of alienation highlights the contradictions of accumulation, extraction, and improvement in digital game narratives based on the capitalist fiction of exchange and production.

¹⁹ Though the game is not combat-centered, players can choose to use lethal weapons, even if it is highly discouraged and taxed.

Xenofeminism and (alienated) games

“Rather than arguing for the primacy of the virtual over the material, or the material over the virtual, xenofeminism grasps points of power and powerlessness in both, to unfold this knowledge as effective interventions in our jointly composed reality.” (The Xenofeminism Manifesto 2018, 0x13)

The procedural rules of game exchange are symptomatic of the narration and allegories in digital games, as argued in the first chapter. In this chapter I will argue that the game rules (and particularly how they simulate the economy) also contain digital games' most critical potential, as they can directly speak about the alienation we encounter when exchanging our game labour for other game commodities and values. This approach of accepting the critical potential of alienation is internal to *The Xenofeminist Manifesto* (Laboria Cuboniks 2018). Here I want to discuss the concepts of xenofeminism within the context of digital games along with the tradition of estrangement and alienation in visual and performance arts, Brechtian theatre, and the contemporary art of digital games in the search for possible critical exchange strategies in digital games. In contrast with the objective alienation discussed above, it is important to complement this with the notion of subjective alienation.

Subjective alienation can be described as *not feeling right in the world*, complementing objective alienation (Leopold 2022), such as the freedom of ownership of one's own body, along with perceived political and economic freedom in capitalism. Xenofeminism is particularly interesting in this context as it directly addresses alienation in technology, under capitalism, as well as possible critical alienating strategies in the arts, thus I borrow the (xeno-) abbreviation in (alienated) games from xenofeminist practice.

For Laboria Cuboniks, virtual (including digital games) and material are part of the same political struggle. Similarly to the notion of ideology in *The German Ideology* (Marx and Engels 1932), media culture is interconnected with material production and the relations of power from a xenofeminist perspective. In comparison with the Marxist analysis of objective alienation, Xenofeminism does not necessarily view alienation negatively: *“XF seizes alienation as an impetus to generate new worlds. We are all alienated – but have we ever been otherwise? It is through, and not despite, our alienated condition that we can free ourselves from the muck of immediacy. Freedom is not a given—and it's certainly not given by anything ‘natural’.”* (Laboria Cuboniks 2018, 0x01) The concept of alienation is ontological and mainly subjective for Xenofeminism, and as such it complements the hitherto economic exchange-oriented analysis, mainly by possibly considering player agency and the subjective perspective of daily life under capitalism from the viewpoint of game fiction.

Synthetic alienation and freedom in (alienated) games

The artist, writer, and co-author of *The Xenofeminist Manifesto* Diann Bauer, in her essay *Alienation, Freedom, and The Synthetic How* (2019), further developed the xenofeminist concept of alienation. Bauer considers alienation in a discussion of the concepts of freedom, and given that we are naturally alienated from the natural world, we always look for *synthetic* (technological) solutions. Therefore, the consciousness of alienation can be a starting point for empowerment or fostering agency options. This is

relevant in the increasingly technological and media-oriented society of 21st century capitalism, which brings the objective modes of alienation to further subjective levels by not only extracting labour but also increasingly extracting the audience's attention (as a new scarce resource) in various conflicting media attention economies (Beller 2006).

The negation of subjective alienation does not need to be simply dialectical or binary in the sense of negative freedom from oppression rather than positive freedom to act, following Isaiah Berlin's two concepts of liberty.²⁰ According to Bauer, this is a matter of basing one's politics of freedom on alienation as an ontological starting point. Therefore, she proposes working with the synthetic concept of freedom coined by Nick Srnicek and Alex Williams – "*synthetic freedom*' recognizes that a formal law without a material capacity is worthless." (Srnicek and Williams 2016, 79) The synthetic freedom is an appeal for a combination of positive freedom with a recognition of the importance of material conditions. According to Srnicek and Williams, freedom alone is not viable without securing the material conditions to support it with necessities, social resources, and technological capacity (Srnicek and Williams 2016, 80-81). In this sense, we can see similarities with the Marxist critique of production relations at the basis of the critique of economic relations discussed above.

The critique of alienation and ideology in digital games based on xenofeminism must account for both ideal and material conditions while securing access to the contemporary technological means of production. Therefore, a synthesis of both narratives of objective alienation in material relations and subjective alienation is needed for critical digital game strategies and designing economies, which can focus on normative attempts to attain synthetic freedom by incorporating synthetic alienation narratives and mechanisms, as xenofeminist artistic strategies aim to appropriate technology and contemporary means of production rather than rejecting them.

When considering the relationship between freedom and alienation, we can devise strategies for speculative and critical games based on the affirmation of subjective alienation. We can think of alienated games as an exploration of ideologies and mechanisms in game medium, and as an aspiration for critical education in production systems and in the material context of exchange. This allows the articulation of critical strategies, working with systemic alienation in the context of value exchange, but also within individual feelings which can be used in artistic, educative, and mainstream game narratives and aesthetics. Alienation allows the construction of narrative and algorithmic rule-based systems that ultimately demand normative change, for example, of capitalist labour as in *Death Stranding*. If we follow such strategies, it is necessary to consider player awareness of the starting point of economic alienation, which consists in recognising and highlighting the material conditions of players as well as their subjective settings.

Subjective alienation in Citizen Sleeper

To illustrate the two concepts of alienation in digital game design, we can consider *Citizen Sleeper* gameplay to be centred on pursuing one's own agency in alienated work relations and, at the same time, taking care of one's own avatar body: *I spend my days (cycles in the game's terms) at Erlin's Eye. It is a somewhat derelict space station in the Helion System, home to various corporate, crime, worker, or agrarian factions and*

20 The concepts of negative and positive freedom are based on the inaugural lecture of the political theorist Isaiah Berlin in 1958. (Berlin 2002, 169 and 178)

personalities which form Citizen Sleeper's lively science-fiction setting. I am a sleeper, an android assembled by the Essen-Arp Corporation, which is trying to enforce its ownership of my body throughout the game. By the late stage of the game (Refugee episode), I have now gained some level of freedom from the corporation by hiding in the depths of the Eye, but I am still dependent on the constant stabiliser drug production, without which my artificial body gradually disintegrates – a safety measure implemented by the company design in case it loses ownership of the android's body.

The game unfolds in turns – cycles of the rotating space station, which are defined first and foremost by throwing a number of dice (the number varies according to the current level of my body's disintegration). I start my cycle in a fading condition, meaning that I only have three dice to throw, effectively limiting my (game economy) actions to three – I can still talk to NPCs and progress through the story after executing my actions. There is not much to do at the station while I am waiting for the progression of the storyline – a refugee fleet will decide how to proceed about leaving Erlin's Eye tomorrow. However, since the condition of my body is poor, I have decided to focus on sustaining myself, aiming to produce a stabiliser drug to repair my body. I will gather fungus spores in Mushroom Groves to plant in the hope of growing rare mushrooms to distil the stabiliser in Hypha Labs. I inserted the first dice into Mushroom Groves; The inserted die had a value of 5, so I successfully gathered a batch of spores, then I inserted the two remaining dice, each with value of 4, and these two last actions of the day gathered a total of six spore items. I proceed to The Aviary to germinate three spores, and now I will need to wait four cycles to harvest the yield. My energy is low, so I proceed to Farm Stacks and barter for food there, spending 13 Cryo – a station currency I can accumulate by working assignments or by trading various items, stolen data, and scrap. I have no dice left, and I cannot proceed with the game story in this cycle. I will end my day in the Hypha Dorm bed, but before sleeping I inject one stabiliser I have stashed from before in order to improve my condition. I do this to obtain five action dice tomorrow with a fully repaired body, but I must plan the stabiliser consumption precisely so as not to disintegrate slowly, leaving me to die in forced idleness with no dice. In tomorrow's cycle I can proceed in the refugee story or plan to prepare resources for my future repairs and food.

Citizen Sleeper is a game of balancing needs and resources to sustain one's own body along with the ability to pursue long-term goals: either political, such as helping workers unions and refugees, local – helping fellow vulnerable labourers, or purely selfish goals such as building one's own home at the space station. *Citizen Sleeper* employs synthetic alienation (both material and subjective) similar to *Death Stranding*, but somehow the game design, centred around bodily disintegration, brings subjective alienation into the frame more radically. According to *Citizen Sleeper* developer Gareth D. Martin, the game frames game mechanics as directly based on neoliberal subjectivity, always prone to chance in neoliberal capitalist labour precarity.²¹ The focal point in the *Citizen Sleeper* is the allegory of a decaying body striving to produce sufficient resources for each cycle. Precariousness and alienation are experienced by the former corporate body, thus a player's avatar²² is only able to work and sustain itself depending on their deteriorating health and chance represented by the roll of the

21 See Martins BAFTA talk at https://youtu.be/r2b_M4a8SoQ (Accessed 18.01.2024). *Citizen Sleeper* was designed with conception of minimal game design, with mind to feasibly carry its economic game system and narrative critical of neoliberal capitalist forms of gig economy employment.

22 Seen, illustrated and experienced only in the *Citizen Sleeper* player's statistics screen.

dice. *Citizen Sleeper's* resources and time management mechanics continually raise questions about who owns the alienated body of workers under neoliberal capitalism.

Politics and strategies of alienated games

To understand the relationship between subjective alienation and the notion of objective alienation in Marxism, we can further illustrate the problem from the perspective of a Marxist analysis by the political theorist and writer Lea Ypi (Free: Coming of Age at the End of History 2021, 309). For Ypi, the analysis in *Capital* (Marx 1990) is not only an analysis of economic relations but mainly an analysis of the possibilities of freedom in society. Capitalist relations alienate our daily lives concretely; they alter the way we are employed, how we experience our body and when we lose the rights to it, and the analysis of capitalism always focuses on the freedom experienced by the people living in it. The possible changes in social relations discussed in Marxism aim to free labourers from the working conditions of capitalism, which has historically alienated populations further with the loss of workers' rights in connection with optimising and improving production. This recalls the fencing off of common land (commons) and the appropriation of land in primitive accumulation (Federici 2021), or the perpetual struggle for the length of the working day under capitalism – largely the focus of *Capital: Volume One* (Marx 1990). Therefore, the concept of alienation is naturally connected with the concept of freedom, as de-alienation and worker emancipation are processes of increasing both material objective and subjective perceived freedom across social classes and their political relations, which define our society (Chibber 2022).

Recalling the synthetic perspective of alienation in xenofeminism, we may also work with alienation as a natural subjective state within critical and speculative games by refusing to accept the alienated status quo. Similarly, (alienated) games would stand for the possibility of new strategies within systems of exchange based on synthetic freedom via the appropriation of the available technologies. In our case this stands for promising critical strategies and game systems, working with the consciousness of alienation on both subjective and objective levels. I argue that in the case of digital games within this context it is important to work with the alienation of players and exchange participants in the simulation, beyond the ideologies of utopian and negative exchange.

This means open and conscious work with the contradictions within both the game narrative and economy, in an approach that needs to work with both notions of alienation but at the same time needs to consider the possibilities of various player agencies (both negative and positive), while also not falling for commodity or code fetishism (viewing the code or game allegories as magically independent of social relations). For example, this can work as a juxtaposition of subjective and objective alienation that we have analysed within *Citizen Sleeper*, where the game centres around economic, class, and (subjective) personal struggles with the alienating allegory of both game narrative and game mechanics. Simultaneously, the game presents the narratives of the former corporate space station, of its vulnerable denizens, of ownership of the avatar body, and juxtaposes “hustle” and care economies as interconnected problems. This interconnection allows players to gain agency in planning the future of their avatar body throughout the whole socio-economical system of the space station. This agency allows players to speculate by consciously using alienation from the game exchange. Alienation from exchange works on multiple levels within the game, an incomplete list of which could read as follows: (1) *on an affective level at the start of Citizen Sleeper, the player finds that her body is owned by the corporation*; (2) *with the agential contingency of its actors (meeting other game characters that experience similar*

alienation); (3) with events, and values temporarily outside the exchange showing own agency (*helping other game characters to pursue their goals within the community*); (4) and finally, with their further inversion back into the construction algorithmic economy (*in the continuous struggle for independence from the Corporation*) back into the rules game market institutions – of the affordances of exchange of player time for player progress (which in this case are the *game dice mechanics framing the need to get money and other commodities that can be exchanged for food and stabilisers*).

The complexity of these relations results in *Citizen Sleeper*'s specific speculative game mechanics: In *Citizen Sleeper*, players can critically experience the subjective agency beyond the exchange, but the objective economic modes of *alienated exchange* define the possibilities of critical and speculative experiences. And as seen in both *Citizen Sleeper* and *Death Stranding*, including the critical exchange rules in the game narrative, they can effectively transcend game fiction escapism, which, by contrast, usually builds around rejecting or ignoring the alienated modes of production in game allegories.

There is no critique of colonialism, accumulation, gender, or feminism in *Civilization VI* or *Age of Empires II: Definitive Edition*, but this does not mean that these were not pressing issues in the historical eras both games are depicting. Similarly, as with alternative forms of economic production relations and forms of politics outside capitalism, these were simply omitted from both games' mechanics for ideological reasons. The strategy of alienated games can nurture these often-forgotten vectors in the face of their contradictions and within given technologies.

BRECHTIAN AND SITUATIONIST ALIENATION STRATEGIES

*"It is advantageous not merely to think according to the great Method but to live according to the great Method as well. Not to be identical with oneself, to embrace and intensify crises, to turn small changes into great ones and so forth – one need not only observe such phenomena, one can also act them out."*²³

Beyond the increasingly popular niche of digital games, there is a history of similar approaches to drama or visual arts using alienation. When searching for strategies of alienation or estrangement, I will briefly focus on Frederic Jameson's use of Bertolt Brecht's concept of the V-effect and its possible implications in contemporary digital games.

The concept of political stance (*haltung*) is critical for Brecht as a precursor to the V-effect or alienation effect, which is a narrative strategy that is largely based on Marxist dialectics and the concept of critical stance, in which *haltung* stands for the declared political position of the character changing throughout the play based on social conditions. The V-effect works with an aesthetic experience aiming for a suspension of the prevalent ideologies through an emphasis on the entertaining *acquisition* and learning of scientific knowledge, and change of the various political stances of the play's characters (F. Jameson 1999, 49 - 47). The V-effect can build on the emphasis

²³ From Brecht's Book of Changes, XVIII, quoted and translated by Frederic Jameson (Brecht and Method 1999, 38)

in order to a) estrange the audience and b) defamiliarise the everyday experience, and to estrange audience identification with the heroes during the process of the theatre performance narrative. According to Jameson, the V-effect can be read as a distinct narrative and performance-specific strategy that can be generalised into four main points, where the contrast of stances and ideologies form the alienating tension.

In Jameson's reading, the V-effect is (1) a narrative strategy that allows us to see situations and concepts or institutions with "new eyes". (2) These concepts could be estranged with a new symbolic meaning, and the V-effect is therefore a strategy that uses a symbolic meaning. (3) The V-effect can be described as a kind of "shutting down" of our empathy with the protagonists or heroes.²⁴ (4) Above all, the V-effect aims to redefine the familiar or habitual – unveiling the appearance or illusion of naturalness and the stasis of social constructs, or concepts such as capitalism or religion, which are shown as inherently human in Brecht's plays and can therefore be rebuilt (F. Jameson 1999, 50-51).

During the first decades of the 20th century and after the Second World War, Brecht designed the V-effect as a tool against religious ideology (F. Jameson 1999, 52), but its didactic and dialectic concepts of sublation (synthesis of two contradictions) make it clear that Brecht's position or stance is still a useful concept for critical strategies (F. Jameson 1999, 83). These educative strategies could be used, for example, in systemic games, related to the themes of climate crisis, as a direct link to open research and scientific resources, or as a strategy for undermining various ideological concepts. On the other hand, the concept of the V-effect and the idea of estrangement have been normalised in popular culture.²⁵ It may be losing its critical potential, but this could be caused by the appropriation of such narratives by the entertainment industry and by the loss of its previously openly political stance.

Brechtian attacks on institutions and intrusions into everyday ideological concepts prefigure the mid-20th-century artistic avant-garde strategies of estrangement and détournement used by situationist artists. The Situationist International (SI) was formed by the merging of two avant-garde groups, Imaginist Bauhaus and Letterist International, in 1957. Two of its prominent artist and theorist members – the French Marxist Guy Debord and the Danish founding member of the COBRA art movement Asger Jorn – formulated distinct avant-garde art practices and theories based on the sublation of the practice of later groups as well as surrealism, Marxist dialectics and the theory of value, and the turn towards the critique of contemporary "bourgeois" lifestyle and politics. According to *Art Since 1900* (2016), SI developed several subversive art practices, namely *derivé*, psychogeography, and *détournement*. *Derivé* is a technique of twisting the well-known practice focused on the critique of alienated labour, with a subversive approach to the contemporary city lifestyle. Psychogeography built on *derivé* with an emphasis on the study of the behaviour of city denizens and their movement throughout the city, creating an affective map of movement which should be subverted in order to create a new perspective on the city geography as a negation of contemporary city alienation from its denizens. The sublation of the latter

24 See Brecht's plays *Mother Courage* or *The Threepenny Opera* where the heroes are perceived as positive and empowered actors in the beginning, but they will begin to show their negative characteristics and helplessness in relation to their environment as the story unfolds to the point when they are emotionally estranged to the spectators.

25 From the digital game's perspective, concepts using estrangement could be seen in the various breakings of the fourth wall and estranging moments of games like *Disco Elysium* and narrative aspects of *Death Stranding*.

two strategies – *détournement* stands for the hijacking or transgression of popular or commodified cultural artefacts and mediums into new subversive meanings, familiar to Brechtian V-effect – is the most notable of the three, as it creates appropriation strategies which would influence future avantgarde groups and critical approaches in the arts.

According to McKenzie Wark (*The Beach Beneath The Street: The Everyday Life and Glorious Times of the Situationist International* 2015), we can consider situationist strategies as forerunners of contemporary concepts of sustainable cities, where psychogeography sees the city as a living organism. As both Jorn and Debord would likely argue, the role of the critical art of SI is to appropriate the alienated means of production for our existence outside of mere capitalist exchange. The method for such a new existence and alternative value exchange would be Situationist city ethnography (psycho-geography) and diverting the flow of the intended meaning (*derivé*) (Wark 2015, 22). As such, situationist art practice or production of art is directly involved in building the social means of production, aiming to extend a materialist worldview to a materialist attitude to life or ethics. Coining aesthetic Materialism in Asger's Jorn art theory, such a practice situates estrangement "*to the infrastructure of the society, not to the superstructure*" (Wark 2015, 50-51).

What is important for the following is the sense of agency in Brechtian spectators and situationist participants in living performance. This could be seen as a mode of participation in the play in which the spectator is actively driven to judge the characters and their social situations, as seen in Brecht's V-effect and stance, and later in the Situationist search for new perspectives on social urbanism, where participants are driven to explore the city from a fresh viewpoint. This strategy is reminiscent of the open word exploration of digital games such as *Death Stranding* and other RPGs such as *Disco Elysium* and *Elden Ring*. Such map exploration prompts are also always present in the highly capitalised world interactions of strategy games such as *Civilization VI* and *Age of Empires II: Definitive Edition*, where interactions with the generated game worlds move players to explore game worlds, although in a much more optimal exchange-oriented manner.

Digital games allow for a new perspective on players' political stances if we consider player agency as a defining feature (Bódi 2023), rather than a problematic concept of game interactivity tied to various social conventions (Pfaller 2014). Therefore, concepts such as appropriation of technology (Bauer 2019), embracing subversive player agencies (Tanenbaum 2014), alienating narratives, and economic allegories may serve as better stepping stones for conceptualising critical game strategies, rather than just building empowering games on concepts of free play (Caillois 2001), or, for example, designing persuasive game systems (Bogost 2007). The latter two tend to direct player agency into a closed circuit of economic game systems without prompting players to question their own agencies in a dialogue with the problems encountered in game simulation.

EARLY GAME ART - AESTHETICS AND ALIENATION

On a situationist note, Alexander Galloway (2006, 103-104) rereads *The Sims* (Maxis, Edge of Reality 2000) ironically as a game with a "*politically dubious*" critique of suburban middle-class life; as such *The Sims* would be a game of critically replaying daily menial tasks and Ikea-like shopping. This was allegedly the original idea of *The Sims* designers in the late 90s, but what are we to make of *The Sims 1* and the subsequent *Sims* games in 2024? The claim about the political critique certainly didn't stand the

test of time as the franchise soon capitalised on its wide success. *The Sims* focuses on its most successful mechanics of capitalist *rags to riches* improvement of one's sim avatars, accumulation, and hoarding of various commodities in the gamespace. Its mechanics lost their edge (if there ever was any) partly due to the subsumption of the market logic of microtransactions and generic DLCs, which are sold as optional extensions of the original game, adding various new game mechanics or in-game items. Speaking of its external market and value creation, *The Sims* was one of the early games to capitalise on adding optional content to the original release, where the downloadable expansions would focus heavily on adding new game items and mechanics that would enhance the original game loop with options to travel, engage in nightlife, and more. The economy of the original *The Sims* was somehow an alienating experience: Players focused on the need to produce money to buy food for sims, deter thieves from stealing precious in-game commodities, or the plain need to spend most of the day at work. As such, *The Sims* never had a political stance that would allow it to articulate a consistent critique beyond the core game mechanics of repetitive daily life. Based on the above discussions of alienation, political stance, and estrangement, I would argue that the project naturally moved towards the allegory of commodity fetishism simulation, rather than towards its alleged origins as a critique of middle-class life.

At the same time, there were growing communities of modders, sharing their modifications of popular games via the Internet, while a number of artists started working with more easily accessible digital games, which now often included in-game tools and editors allowing the editing of game maps, the addition of new items, changing the appearances of the game, or even editing of the game mechanics. Galloway (2006) investigated the origins of the popular tactical shooter *Counter-Strike* (1999), first developed as fan mod based on *Half-Life* (1998), and the early artistic and subversive approaches to the medium in early 2000s, which formulated critical and subversive narratives in digital games, as well as community and artistic modding directly based on the appropriation of game environments and algorithms of popular titles such as *The Sims* or *Counter-Strike* in a playful mode similar to situationist détournement.

Galloway used the term counter gaming (Galloway 2006, 109) to describe the early artistic appropriations and modifications of popular digital games based on the countercinema (Wollen 1975) of independent movies and auteurs such as Godard. Galloway reads the early appropriations of the digital games by artists such as Jodi, retroYou, Cory Arcangel, and others of the early 2000 game visual arts scene as their counterparts. Galloway also formulated specific counter games, which are differentiated from *conventional* games (Galloway 2006, 124-125) as follows: 1. *Transparency versus foregrounding* – highlighting the code mechanism beyond game visuals. 2. *Gameplay versus aestheticism*: Focusing on *formal* experiments rather than a *narrative based on coherent rules*. 3. *Representational modelling versus visual artefacts* – Glitch aesthetics over *mimetic realism*. 4. *Natural physics versus invented physics*. 5. *Interactivity versus noncorrespondence* – as a push for non-predictable gameplay. 6. *Gamic action versus radical action* – standing for the prevalence of politically subversive narratives and mechanics over *conventional gaming* tropes.

What is missing is the identification versus estrangement of counter cinema specificity (Wollen 1975). We can reimagine digital game media specificity similarly (for the purposes of this chapter), not as centred around the mere fact of interactivity (Pfaffler 2014), free play, goals and conflict, voluntary acts, or unproductive recreation (Juul 2011, 29-31), but rather around alienation (estrangement) from and identification with economic/market game systems (gameplay mechanics). This is not a definition of

digital games,²⁶ but a working definition of media specificity which is specifically important for this discussion, as it highlights a larger issue with the early artistic adoption of the game medium: the prevalence of aesthetic approaches of early countergames over radical political narratives. Such aestheticization of the media within the context of art is surprising if we contrast it with the political themes already present in popular digital games, such as the *Civilization series* discussed above. There are numerous games with a capitalist status-quo perspective, but at the same time there is a rich history of radical board and digital game designs from the early 1900s onwards.

At the time countergames were mostly modifications of digital games. The prevalent strategies were those of anti-game and conceptual adjacency, revealing the technological background or adopting a non-conventional perspective on the act of playing. This would either stand for revealing the algorithmic code beyond the simulation or reducing the found game mechanics in a self-referential take on the game medium. For example, *Super Mario Clouds* by Cory Arcangel (2002) illustrates this as a game where the artist stripped the popular game of all its mechanics, keeping only a background of animated floating clouds. The artwork was exhibited as an appropriation of the game, and in an installation was described by the Whitney Museum as “*reminiscent of paintings that push representation towards abstraction: how many elements can be removed before the ability to discern the source is lost?*” (Whitney Museum of American Art n.d.). Therefore, a critical perspective on economy, alienation, and political stances was largely missing in the early artistic appropriations of game media, which prevalently experimented with digital glitch aesthetics. In 2006 Galloway concluded similarly that “*there exists no true avantgarde of gamic action today. In other words, countergaming is essentially progressive in visual form but reactionary in actional form,*” and he argued for new radical games based on avant-garde approaches to game action and a “*critique of gameplay itself [where a]rtists should create new grammars of action*” – in other words a bid for a critical design of core game mechanics and rules (Galloway 2006, 125).

It is important to mention that the concept of radical, political, and activist games was already present in board games, for example in Buckminster Fuller and Ruth Catlow’s *World Game* (Galloway 2006, 125), and in the situationists’ take on military wargames (Becker-Ho and Debord 2007). Notably, the early critical *Landlord's Game* educated its players about problems of capitalist rent, property ownership, and the need for taxation (Magie 1904), which strangely enough was a precursor to *Monopoly* (Parker Brothers 1935), and later modified to the educative Marxist game *Class Struggle* (Ollman 1978). In digital games, radical design began to appear as a political and artistic practice as early as the 1990s (Bogost 2007, 89-93), and became prevalent after the later release of accessible game development engines such as *Unity 3D*, *Unreal Engine*, or *Godot* during the 2010s. The accessibility of game engines allows artists to easily create whole games and rule systems without the need to work in larger teams or have a technical education. This has led to the growing popularity of independent games and artistic approaches towards the medium, often in the practice of conventional digital games. Game artists, independent games studios, and solo developers were not necessarily connected to gallery practice or fine arts discourse, but they still developed radical games with critical mechanics.

We can follow on from this argument against the radical game category distinction and Galloway’s term countergames, since many of the mods and digital games exhibited radical art qualities and critical design strategies even early in the 1990s and the 2000s.

26 In this context games can still be “characterized as activities with negotiable consequences.” (Juul 2011, 36)

Rather, the issue is that they were not represented in the visual arts discourse of the era, which preferred aesthetic approaches over radical and critical ones. Examples of such successful mainstream games can be seen in the aforementioned *Half-Life*, inventing distinct alien and oppressive state aesthetics and inviting player modder communities, as well as *Planescape: Torment* (1999), an estranging game world with a perspective of an undead player avatar, the critically acclaimed atmospheric exploration of *Myst* (1993), which creatively uses video sequences in 3D space, or the both narratively and mechanically subversive *Metal Gear Solid* (1998). We can conclude that the distinction between the art of games and counter games cannot be drawn only at the level of radical artistic and conventional approaches to digital games. Similarly, making such a distinction by setting counter games within the discourse of the visual arts seems pointless, since the so-called conventional games often exhibited radical approaches, narratives, and game mechanics.

RADICAL GAME DESIGN

Another important approach concerning research on strategies of alienated games is the *videogames of the oppressed*, first conceptualised by the game designer and researcher Gonzalo Frasca (*Videogames of the oppressed: Videogames as a means for critical thinking and debate* 2001). This term is based on Augusto Boal's 1974 concept of the *Theatre of the Oppressed* (2008), which argues that theatre is inherently political and, as such, can be a tool of political liberation if it can transfer critical agency from actors to spectators. Frasca draws his conception of videogames of the oppressed from the example of a subversive and educational take on modification with *The Sims of the Oppressed* – allowing players to share modifications not only with altered and new digital objects (furniture, buildings, etc.), but rather sharing predesigned characters with personalities, “based on behavioural details that they [the players] think need improvement to have a higher degree of verisimilitude” (Frasca 2001, 81). Characters based on personal problems can reflect real problems experienced by the players and therefore illustrate social stereotypes in the participating group. An example of such a shared character in Frasca's games can be the stereotype of an “alcoholic mother”, the algorithm of which would be gradually edited to depict such behaviour realistically without stereotypes, and would therefore have a therapeutic effect on the participants (Frasca 2001, 82-83). This is particularly interesting because it uses moderated communities for shared agency representation and participation. Another strategy coined by Frasca is *play my oppression* (Frasca 2001, 88-89), allowing players to share whole game simulations that project their daily and political issues. One such possibility for critical game design would be to model such social simulations further and share them asynchronously as mods and additions to existing games, or even to share them synchronously within multiplayer sessions. Such shared simulations of *games of the oppressed* may even make it possible to imagine and speculate on various economic models with currently accessible development tools if the original game design accounts for such an option.

Nevertheless, both strategies are highly dependent on the constant moderation of the community of players and might be limited to generic narratives, with the danger of leaving individual participants to steer away from the shared agency. Moreover, as discussed previously, sharing such data is prone to data mining and techno-solutionist narratives (Sicart, *Playful Capitalism, or Play as an Instrument of Capital* 2021). Therefore, a safer critical strategy could lie in predesigned or half-constructed spaces *with shared and democratic agencies*, as discussed in the next chapter. These game spaces, predesigned for fostering player agency, can be open to player groups without

the necessity of moderation or the skills needed to operate and modify complex tables and algorithms.

Ian Bogost's (2007) discussion of serious games and procedural rhetoric offers solutions to the problem with moderation. Serious and persuasive game mechanics are designed for education by simulating specific social and political issues. Such games function without the need for constant moderation; they work by encouraging players to explore the given simulation. On the downside, the rigid pre-constructions of serious games allow for constructing educative narratives but do not allow for much of the player agency within the game, as the route of exploration is predesigned to convey a given message. Agency in serious games is rigidly determined by the political stance of its designers, and therefore may serve either as a critical simulation, with the risk of preaching to the choir, or as a form of marketing, or even as military propaganda, as shown in military game examples in *Persuasive Games* (Bogost 2007, 77 and 226-227).

The critical game researcher and designer Mary Flanagan, in her book on subversive strategies in play and design of digital games entitled *Critical Play: Radical Game Design* (2009), offers several approaches that are important for the context of this chapter. Flanagan highlighted the importance of situationist practice in the context of radical game design, focusing on political artist game strategies concerning changing player attitudes. What is notable about Flanagan's radical game design is a certain scepticism concerning the overemphasis of player agency and modders communities, which can be referred to, following Certau, as the "*art of the weak*" (Flanagan 2009, 191). Reflecting upon Huizinga's seminal lecture (*Homo Ludens: A study of the play-element in culture* 1949), which argues that play always have a social meaning, we can also stress the importance of the mode of depiction of a certain space and location in contemporary games. In the same vein, considering situationist practice, when speculating about the possible performative design of (game-)space, we always consider a certain fiction and allegory of space. Location (fictional or not) is both historical and geographical (Flanagan 2009, 192-193), burdened with various (often capitalist and colonial) ideological convictions, market exchange modes, stereotypes, politics, or fantasies. To overemphasise player agency in this political game context can mean forgetting that the ethos of digital game is initially (in the development stage) given by its designers, not players, as they are not the original designers of the narratives, game rules, and mechanics; therefore, *derivé* or abduction of agency can work both ways.

Moreover, according to Flanagan, radical designers (and players) must consider the basic fact of who has the freedom and time to play (Flanagan 2009, 205). The act of playing a game might be connected to the accessibility of hardware, energy, or simply a question of free time to spend in and to explore game worlds and systems. Following on from Judith Butler when thinking of subversive strategies, it is important to recognize "*the fact that social systems hold many fixed categories from gender to class, race, and economies and that these systems can only be challenged by examining the categorizations that sustain them*" (Flanagan 2009, 222). Within the context of this chapter, we can rephrase this proposition by saying that radical digital games should always recognise the various forms of material and social alienation.

CONCLUSIONS: WHAT CAN ALIENATED GAMES BE?

Alienated games require a design approach that can use game simulation actors and player participation with shared agency in a dialogical manner. The dialogical approach towards speculative mechanics considers both the developmental phase and final digital game, using the rule rigidity of serious games and radical game openness to various player agencies. For example, they could take the form of a participative manifesto open to player deliberation and interpretation. For educative and activist radical game designs, this might be facilitated by including a dialogue with participants in the game and opening a design decision to the actors' agency in all stages of the game development. The optional (xeno-/alienated-) prefix in these strategies for critical or radical digital games suggests a tension between alienation and economic fiction.

Alienation in digital games allows for narratives and mechanics that can have both educational, critical, and speculative directions. Alienated games can combine the Brechtian political stance, situationist hijacking, or estrangement of stereotypical game mechanics with a consideration of the effective focus of the political message of serious games, the appropriation of aesthetics of early countergames, and an endeavour for a radical game design focused on player agency. The aim of alienated games is not to narrow player focus in one direction, but rather to allow a space for speculative mechanics emerging out of the game design, as well as for multiple agencies to open conversations. Importantly, alienated games must emphasise the material context, problems of labour, modes of exchange, and exploitation in both narrative and game mechanics.

To summarise the possible direction of alienated games and alienated exchange, we can state that such games focus not on the perpetuation of dystopias but rather aim for a critique with *dexterity* in the face of real technological and social contradictions and crises. They aim to critique and speculate with multiple levels of alienation in the face of capitalism, authoritarian politics, colonialism, and climate crisis in order to produce speculative game mechanics and speculative criticism, as postulated in *the Xenofeminism Manifesto*: “Our future requires depetrification. XF is not a bid for revolution, but a wager on the long game of history, demanding imagination, dexterity and persistence” (Laboria Cuboniks 2018, 0x00). Alienation strategies in digital games should aim to place game action within historical and material contexts.

It is not possible to discuss all the critical and alienating strategies in games within the scope of this chapter, but the above research should provide for further discussion of the basic relevant categories and also provide an outline for defining approaches to alienated strategies in digital games. This outline focuses on directions that address the speculative and critical possibilities of game narratives and rules, in terms of both player alienation and player agency in both mainstream games and game art. To conceptualise these strategies with a focus on critical game economies, which I will argue are necessary for designing critical game narratives and rule sets around alienation and player agency, we must examine the performativity of software ideology.

3. Performative Ideology: Player Agency, Code Fetishism, and Game Extractivism

Game ideology is not magically imposed on players, and neither can any set of algorithmic rules completely define player actions in games. Ideology and algorithms do not puppeteer zombie players around the game words; instead, they are enacted by player actions and decisions. That is, players of digital games have their own agencies and preconceptions that motivate their actions in games, and in this sense, players enact the stereotypes afforded by a given game – players perform ideologies. This process, which can be either authoritative or dialogical, is the subject and design question that is the focus of this chapter. To conceptualise speculative mechanics we first investigated capitalist economic ideologies, the fantasies of capitalist growth, and (non-)alienation. Here it is time to discuss affordances that give performative motion to otherwise undead ideologies.

Player agency is a concept broadly discussed by game studies as connected to both game politics and player ability to control games, or to take a critical perspective on *game politics*, standing for its procedural rhetoric, allegories, and ideologies. Here I will use the recent conceptualisation of player agency as afforded by game design by the game scholar Bettina Bódi (Videogames and agency 2023). Following on from the seminal game studies work on player agency by Janet Murray (Hamlet on the holodeck 1997), which introduced the concept of *meaningful player action* as a possibility space afforded to players by game design in which the game action is not meaningful to gameplay, mechanics, narrative, or game world, we should not consider it as agency affordance. Although aesthetic concepts of agency according to the philosopher the Christopher Thi Nguyen (Games: agency as art 2020) could be of interest to this chapter as they highlight the possibility of systemically playing with external agencies of game representations, they will not be discussed here. I choose to focus on the discussion of possibilities of criticism of capitalism within player agency following on from Miguel Sicart (Playing software: homo ludens in computational culture 2023), from a perspective that concerns player agency not only as an accumulation game of value, or modification of the game world, but as a possibility for playful and loving visiting.

PLAYER AGENCY

In Bettina Bódi's *Videogames and agency*, player agency stands for: (1) The representation of diversity and community participation. (2) Narrative player agency that affects the game story. (3) The affordance of agency that affects the game when interacting with game mechanics (or algorithmic rules). The third approach, focused on affordances in game rules and mechanics, is of the most interest to Bódi (2023, 13-14) because it enables an analysis of games focused on the specifics of the given digital games, and the way in which they lead player agency via the affordance of possible actions within the game simulation. To quote Bódi directly, following on from Espen Aarseth's (1997) discussions of player effort, we can "*think of agency as afforded by the mechanisms of the videogame. This makes possible an examination of how a game's design allows for interaction to better understand how player agency can manifest during gameplay.*" (Bódi 2023, 15)

For Bódi, agency can also be seen as a degree of *player freedom* within the game – the ability to act with flexibility within a given game (Bódi 2023, 22). This is indeed a very broad description of agency, but it allows us to see agency not as a definitive term, but as a heuristic framework for the degree of freedom the game affords to the player. The degree of agency is then connected to (1) the meaningfulness of the game action, which can be related to our discussion of strategy game player labour economies in the first chapter, (2) the degree of player avatar action possibilities – the ability to affect the game by player avatar, (3) the degree of freedom in the varying agency of the player avatar – standing for the player’s ability to choose various forms of agency, where finally (4) the agency is a predesigned “*possibility space for meaningful choice expressed via player action*” afforded to player avatar(s) within the game design (Bódi 2023, 23-30).

The possible heuristic framework for the design of speculative game exchange can be conceptualised based on capitalist alienation, player agency, and performativity of the ideology as argued in the first two chapters, and also needs to inquire into the distribution of power in the game. For example, if the player is a hegemonic actor as seen in *Civilization VI*, or if the game can offer democratic (although alienated) player affordances within the capitalist allegory as seen in the example of *Citizen Sleeper*, I argue that this difference is crucial for the resulting game politics.

Players’ democratic agency – modes of positive and negative agency

Democracy is generally understood as a system that allows collective decision-making; it is a political structure allowing the participation of multiple actors who can make use of their agency for political discussion. (Christiano and Sameer 2022). I argue that speculative mechanics games should aim for democratic approaches, since the authoritarian game narratives of top-down control and management found in strategy games do not allow speculation and exploration of forms of agency beyond competitive and restricted utopian or negative exchange, as they won’t allow an exploration of other players’ and game actors’ agendas. By contrast, the alienated games discussed in the examples of *Death Stranding* and *Citizen Sleeper* were able to support a collective decision-making allegory at the narrative level and construct speculative mechanics and narrative criticism of corporate or capitalist society.

In our research conducted together with the political scientist Gabriela Štvrtňová (Non-domination power and player agency in ecogames: Conceptualizing democratic agency forthcoming), we are researching possible forms of democratic agency in ecological games – as a form of political testing ground for future climate action and democratic innovation. Our perspective on the concept of democratic player agency is based on player non-dominant power over other game actors and the democratic affordances of discussion, dialogue, and collective decision-making between players and other game actors and entities (from non-playable character human representations to other game entities, such as non-human representation of nature), inquiring into the degree of their ability to take meaningful action within agency not dominated by players.

Importantly, player agency can be both positive and negative. Digital games are usually considered spaces in which players can take the liberty of enacting various forms of transgressive play (Tanenbaum 2014). These might be afforded with the game design in depictions of killing and dying with the pleasure of consuming the represented violence (*Red Dead Redemption 2* 2018) (*Half-Life* 1998), in the joy of excessive accumulation (*Monopoly* 1935), with violent extractivism and hegemonic dominance over the gamespace (*Sid Meier’s Civilization® VI* 2016), or, for example, in the sadistic joy of dominance over player avatar bodies – in the possibility of arbitrary

modification or destruction (The Sims 2000). We can consider these affordances to be examples of *negative player agency*, and they can be understood as authoritative (and hegemonic) *power relationships between players and other game actors in the game space*.

Simultaneously, such transgressive liberties can allow positive agency in the form of a subversion of the original game design, often when the player chooses to and is afforded the possibility to take meaningful action in the opposite direction within a game. Most often, affordances for positive modes of player agency are intentionally designed. Examples of such positive agency affordances might be various forms of collective thinking (Death Stranding Director's Cut 2019, 2022), solidarity in the face of capitalism (The Landlord's Game 1904) (Citizen Sleeper 2022), or speculation in the face of colonialism and technology histories (80 Days 2014). I deliberately include older board game examples here to show that player agency is not only bound to recent digital games and is rather an inherent design question of game politics. Positive agency can take on numerous forms beyond this shortlist. However, the differentiating element of *positive player agency* is the emphasis (at both the mechanical and narrative levels) on democratic non-authoritarian player – game actor relations.

Loving visiting

Let me examine positive agency with reference to the brief example of the narrative and procedural speculative mechanics of *80 Days* (Inkle, Cape Guy Limited 2014). *80 Days* is an interactive fiction adventure game that retells Jules Verne's *Around the World in Eighty Days* with a "*steampunk twist*." The game's speculative perspective on the fiction of the world set in 1872 does not stop with the reimagination of technology, but it reimagines the historical power relations from decolonial perspectives. To quote the authors of *80 Days*, the game offers players "*170 cities to explore. Detailed research and techno-fantasy combine in an 1872 of tensions, inventions and exploration. Climb the Burmese mountains, trek the Zulu Federation, sail up the Amazon and disappear under the Indian Ocean.*"²⁷ During gameplay, players balance the needs of the two British protagonists. They take control of a valet Passepartout and plan the route while securing daily reproductions, which are all in the service of Phileas Fogg's wager to travel around the world in eighty days. Although it initially adopts a seemingly colonial perspective with this purported gameplay goal, *80 Days* quickly subverts it by retelling history in a setting where the European colonial powers lost their hegemonic power before 1872 due to a surge of engineering genius and the rise of technocratic internationalism in the former peripheries of the empires (Siberia, Balkans, Africa, Southern Asia, and Southern America). Importantly, the true hidden goal of the game is not to win the wager but rather to explore various routes and visit various points of interest around the world, discovering its cities and characters. This hidden goal becomes apparent immediately after the completion of the first playthrough. This setting affords players the agency of loving visiting rather than the colonial power agency of domination over the gamespace or the fantasy of colonial tourists, although the remnants of the empire remain visible in the game worldbuilding and play an important role in conversations with the various characters that players meet during their travels. In *80 Days*, the non-dominant agency of loving perception and playful visiting allows for speculation within the game.

²⁷ Quote taken from 80 Days store description at https://store.steampowered.com/app/381780/80_Days/ (accessed 16.08.2024).

The game researcher and designer Miguel Sicart conceptualised player agency in a similar vein as a form of *relating*, rather than mere competition accumulation. Let me examine a longer quote: “*We play with software because software, like play, creates worlds. We play with software because playing is a way of relating to other forms of agency, and software creates forms of human and artificial agency. We play with software because it is fun— fun to use what is meant to be efficiently functional only in useless ways and fun to temporarily meet and become others in another world*” (Sicart, *Playing software: homo ludens in computational culture* 2023, 10).

What is introduced here is firstly the notion of software – games are, in this sense, playing software that comes within the broader politics of digital software as such. In this reading, the digital game is also different from the board game because the digital obscures algorithmic rules (we will revisit this notion about software shortly). Secondly, the play is not read as competition but rather as a form of relating to the other – examining other agencies, similar to visiting cities in *80 Days* or helping other characters in *Citizen Sleeper*. Thirdly, there is the notion of fun in meeting others in game words. I believe we can also read fun in this sense by contrasting unproductivity against the notion of capitalist improvement and accumulation. Therefore, we can formulate playful and loving agency in accordance with Miguel Sicart as a mode of visiting that acknowledges the other. Importantly, this does require us to need to paint the game world in rosy colours; the other might be (and usually is) in serious trouble.

Finally, we can anticipate that general software as such increasingly wants to be experienced as *fun*, *playful*, and *toy-like*. Sicart illustrates this argument on the example of the cryptocurrency trading application, designed to make the investment fun with a proclaimed democratisation of the stock market competition as playful activity (Sicart 2023, 11-12) also translated to the rosy colours of the application’s graphic user interface. In this reading, loving visiting can be both used for fostering shared agency *acknowledging the other* but also for *control and manipulation* (Sicart 2023, 13)

Loving visiting does not solve issues with negative agency by itself, but it opens up an avenue of speculative thinking beyond capitalism: Sicart breaks with the agonistic game and play theory and instead follows the theory conceptualised by the Argentinian feminist philosopher Maria Lugones (Playfulness, "World"-Travelling, and Loving Perception 1987). In the late 80s, Lugones rejected Huizinga as an imperial theory of play, from decolonial and feminist perspectives. For Lugones play is conceived as the “*capacity to travel across ‘worlds.’*” instead of the competitive play paradigm known from Huizinga²⁸ (Sicart 2023, 14-15). I believe that the loving visiting paradigm can be seen as a current trend of more socially critical games, as already mentioned in the discussion of alienation. For example, *Death Stranding* builds its gameplay on helping and visiting other game characters, while not painting them as agency-less objects. Instead, they participate in the game narrative world building and do not serve as mere non-playable helpers to accumulate more game value.

Importantly in this reading, digital game software not only plays us but is also played by us. There is a two-way relationship, in which player agencies are imposed on game algorithms, design, and procedural mechanics. Players are always co-creators of game experience and are not only subject to game ideology. Therefore, a strategy of educating or affording more diverse game or player decisions is not sufficient to change the prevalent fiction of exchange. It is also important to introduce other agencies: As Miguel Sicart argues in discussing agonistic play: “*Playing software should be a*

28 Huizinga was conceiving play as a form of competition guided by well-defined institutions of game rules (Huizinga 1949).

passport to understand others and ourselves, to propose different worlds and live in them, and do so together.” (2023, 121)

Positive and negative player agency: Ecogames vs. empire and extractivism

So far we have mainly considered the economic and cultural ideologies of capitalism, but the ideologies of empire, coercion, and military hegemony are other aspects of digital games that need to be scrutinised by critical approaches to digital games. Ideologies are not self-standing fetishes; they are rather political constructs stemming from real material political conditions, which often serve to promote concrete policies and viewpoints in each era, such as archives of era stereotypes, as discussed by the game scholar Aubrey Anable (*Playing with Feelings: Video Games and Affect* 2018). In this sense, even game ideology and by extension its entire politics works within various modes and forms of dialogue between players, developers, producers, holders of capital, and real-life conditions and stereotypical players’ encounters. In this sense, we have already encountered extractivist narratives that construct strategy game modes of exchange. However, with the discussion on positive agency it is also important to investigate the opposite. I will read the term extractivism as encompassing two important themes: First, the problems and legacies of colonialism in games in player imagination and game design, and second, critical issues related to the imagination of climate-crisis mitigation. Both are problems interconnected with a crisis of imagination concerning other than capitalist and extractivist modes of living.

When discussing accumulation exchange in the first chapter, we saw extractivist examples of resource mining in *Age of Empires II: Definitive Edition* as a key to its negative exchange mode, resulting in an empty wasteland (resources extracted from the location on the game map and spent on buildings, units, and technologies to fight opponents elsewhere; and after that vanishing from the game map altogether when game units are destroyed in combat). Different depictions of resource extractivism can be found in the utopian exchange of *Civilization VI*, which paints resource extraction in positive terms. In the world of *Civilization VI*, most extraction processes are not destructive to the game map and the representation of natural systems. The rhetoric of utopian exchange advocates the fiction of sustainable mining and *smooth* resource extraction – problematic concepts that accompany the extractivist player agency found in both negative and utopian exchanges. Negative and utopian exchange in strategy games are procedural and narrative allegories that are connected in both case studies to ideologies of colonial expansion in the need to conquer the game map to win the game.

Ecogames are games that address ecology, such as the climate crisis and its possible solutions. The interconnection of game colonialism, capitalism, extractivism, and the climate crisis was recently expressed in the volume *Ecogames: Playful Perspectives on the Climate Crisis* (Beke, Laura op de, Joost Raessens, Stefan Werning, and Gerald Farca, eds. 2024). In particular, the close relationship between the climate crisis, colonialism, and capitalist extractivism has been described in detail by the game scholar Soraya Murray (*Postcoloniality, Ecocriticism and Lessons from the Playable Landscape* 2024) and the decolonial game scholar Souvik Mukherjee (*No Cyclones in Age of Empires: Empire, Ecology, and Video Games* 2024). Ecogames can also provide an alternative to extractivist modes of play, and there is always a connection of ecogames and speculative political fiction where games can be tools of change with possibilities of participation in critical modes of play (Beke, Raessens and Wening, *Ecogames: An Introduction* 2024, 40-42). In this example we can connect the notion of negative agency to the concepts of “*dark play*” (Mortensen, Linderroth and Brown 2015) and *petroculture* and *petro-masculinity* – a fiction of the ritualistic practice of

burning fuels and defending fossil industries as coined by Laura op de Beke in her chapter (Dark Play and the Flow Time of Petroculture in Oil-Themed Games. 2024), which connects the gamified fiction of smooth mining, resource extraction, and fossil fuel consumption. For example, *dark play* provides procedural arguments for the ongoing surge in authoritarian politics.

Agents of the empire

"When considering the value of "world"-travelling and whether playfulness is the loving attitude to have while travelling, I recognized the agonistic attitude as inimical to travelling across "worlds." The agonistic traveller is a conqueror, an imperialist."
(Lugones 1987, 15)

A critique of the colonial destruction of plurality is at the centre of the play theory of Maria Lugones. The notion of playfulness and world travelling, and the critique of Huizinga's theory of play (discussed by Lugones as inherently colonial) is based on the juxtaposition of the *loving perception*, allowing an affirmation of cross-cultural and cross-racial experience affirmation, and the *arrogant perception* that promotes the process of exploration (or imperial conquest), seeing others primarily as capable of servitude. As such, the loving perception can recognise other worlds by identifying with others' experiences in the process of playful world-travelling.

Loving playfulness may seem like an alien concept in the world of digital games, which seems to almost fully embrace the arrogant imperialist perception of the other in the process of exploration, conquest, and value accumulation as the basis of its rules. These are agonistic games, a paradigm described as the root of play in culture by Johan Huizinga (1949), seen here in accordance with Lugones as rooted in the arrogant perception of the coloniser towards the colonised, the arrogance of the imperial centre towards peripheries and colonies. Furthermore, Sicart notices that players in agonistic games can "*pretend to be heroes of militaristic empires.*" (2023, 76) In this reading, digital games or rather *playing software* is part of whole *make-believe* ecosystem of social, cultural, and ideological affordances that allow us to perform well in capitalist society by *pretending* that the social relations make sense (Sicart 2023, 86-87), very similarly as we pretend that game rules systems and values make sense in relation to the real world outside of the game. I might add in accordance with the analysis of game exchange and market ideologies that if the game is not militaristic, players might dream and pretend to be heroes and managers of capitalist accumulation. Surely there is a space for loving agency in games, but according to the game scholar Patrick Crogan and the software scholar Wendy Chun, the empire and capitalism hold hegemony over software.

According to Crogan's book on military origins and aspects of the video game industry (Gameplay mode: war, simulation, and technoculture 2011), the digital game's critical potential can be unlocked by dealing with *computer age forms*, namely the emergence of research connected to the increasing optimisation and automation requirements of the Cold War era. According to Crogan, we not only need to consider today's console controllers as a possible means of easier training of civilians to use military human machine interfaces, but we also need to consider the origins of technology in military infrastructure and take a critical approach towards it (Crogan 2011, 160). The game simulation is therefore transformed by the real war needs, but at the same time it

reciprocally transforms approaches to war, economy and culture, as they increasingly use the logic of game simulation in the real world (Crogan 2011, 161).

What differentiates the growing popularity of digital games as an entertainment medium from the historical increase in the popularity of film or radio is the direct connection of digital games to military research, as emphasised by the digital media and software scholar Wendy Chun (2011). With the increased commodification of mainstream game spaces and player actions, the role of empire imagination continues to be dominant. Games as commodities are accessible examples of goods available for subjects of the empire in the *imperial mode of living* (Brand and Wissen 2021), and the multitudes of in-game objects, which are easily accumulated without unpleasant infrastructure, visible pollution, and negative effects on nature, or the necessity to physically store them, can be imagined as perfect commodity fetishes in the imperial imagination.

Here we may recall the arguments presented by the psychologist Robert Pfaller (On the Pleasure Principle in *Culture: Illusions Without Owners* 2014), for whom playing a game is not a free activity. For Pfaller, it is rather predesigned and constrained by social norms and, in the case of digital games, by its narrative design and procedural rules. Allowing players to work with the original game also meant that they were able to modify the original digital game *Half Life* (Valve 1998), the seminal science/fiction storytelling shooter, into even more conservative police/terrorist settings, as in the first version of the *Counter Strike* (1999) mod.²⁹ Players often want to act as military agents of the allegorical empire, partly because the game design affords them this role, but also partly because they want to enact the ideology of the empire within the safer space of the game simulation. In mainstream gaming this trend seems to be continuing to this day, although now there is also an emerging avant-garde of independent games that are bringing critical, queer, and subaltern subjectivities in genres such as visual novels that are often shared for free on platforms such as *itch.io*, and reject the common game industry markets and practices.

However, according to the game scholar Péter Makai (Do You Want to Set the World on Fire? 2024) we can also see that placing too much importance on player agency in climate crisis digital games might create yet another problem: ecogames might direct players away from participating in real-life climate action by giving them comfort in terms of ease of interaction and dominant power over the rest of the game actors. This is created by giving players too much arbitrary agency along with the soothing procedural argument that the choices players enact in digital games have an impact, are democratic and justified, and therefore that the necessary action can be left to *someone else*. Similarly, the game's procedural rhetoric states that there are already feasible institutional processes in place, or even depicts authoritarian forms of government as somehow better placed to tackle the climate crisis.

29 Contrasting this, authors of *Games of Empire* (Dyer-Witheford and de Peuter 2009) argue for games of multitude where the players sense of shared agency can result towards non-consensual games that allow de-commodification of game-space. But the agency can be easily acquired by empire, or subsumed by capital, also producing larger scale games is time demanding pursuit in need of moderation. And as we have seen with discussion of modders communities of *Half Life* or *The Sims* (Galloway 2006), the mere multitude of modders haven't meant increase in radical game modifications. In this sense the argument for the games of multitude seems to be too optimistic, and again it can be connected to our discussion of capitalism.

Negative player agency in colonialism re-enactment

Negative agency can be framed as a form of reenacting colonialism, colonial and capitalist material violence, power hegemony, or as an ecological form of violence, most often extractivist. Again, examples of this are provided by the mining of resources in *Age of Empires II: Definitive Edition* and in *Civilization VI* which, in addition to their extractivist rhetoric, fail to mention that humans (villagers or citizens) are also part of the value creation process (Mukherjee 2024, 170). Colonialist modes of gameplay are prevalent in other game genres such as explorative games and various forms of role-playing games (Mukherjee 2024). This is while players are directed to enact a form of capitalist fiction resembling feudal serfdom or direct forms of enslavement, where the units in strategy games do not show any agency of their own except for map navigation, resource gathering, and combat tactics. Reminiscent of Lugones' arguments, they are depicted as foldable subjectivities (1987, 18) that never question player orders. Similarly, as stressed in the previous chapter, any other forms of living – its social and political modes – are excluded from the game mechanics, value exchange on inner game markets, and the narrative. I have loosely defined negative agency as modes of play that either submit to enact these paradigms (if present in the original games) or a mode of play that bends the original game design to reenact various violent, extractivist, capitalist, or colonial forms of play beyond the expected play modes. In other words, I also argue that negative agency in digital games stands for a re-enactment of or submission to an oppressive or authoritarian fantasy of control over the gamespace and its actors.

Mary Flanagan and Mikael Jakobsson in their recent book *Playing Oppression: The Legacy of Conquest and Empire in Colonialist Board Games* (2023) delve into the specific colonial origins of popular board games settings, rules, and narrative design. The increasing popularity of board games has much in common with the popularity of digital extractive and exploitative strategy games, in which the contemporary colonialist board games “*fetishize difference and otherness to position the person with the Western gaze as the one in control—an endeavour that currently seems to threaten the very foundation of Western civilization, owing to the negative aftereffects of the ongoing mindset of European colonialism*” (Flanagan and Jakobsson 2023, 138).

As critical game designers and artists, we must address negative agency at multiple levels. Narrative and aesthetic aspects are important elements in such an approach, but digital games are procedural media defined by the dialogue between the algorithmic game rules and players' agency. Dealing with negative agency, not forgetting the economic allegories of game value accumulation and the possible alienation of game actors, this dialogical (loving visiting) is important so as not to perpetuate colonial extractivism and oppressive modes of agency driven by game algorithms that will not allow otherwise. We can direct player attention to questioning the re-enactment of digital play stereotypes.

PERFORMATIVE IDEOLOGY IN DIGITAL GAMES

Speculative and critical games do not need to focus only on managerial fantasies that are deeply rooted in colonialism and capitalism. The process of subsumption (or merging allegories) of capitalist modes of production and of the empire's military into digital games is connected on the one hand to economic modes and ideological (often missing) depictions of alienation. However, as I hope to show here, it is also connected to player agency in game procedural narratives and inherent actor performativity demanded by any ideology of digital code. In Wendy Chun's terms, code or digital

software is *undead memory* that needs to be *acted upon* to be brought alive; when we encounter code, we encounter writing which is neither “*dead repetition, nor living speech*,” we encounter a memory to be interpreted (On Sourcery and Source Codes 2011, 23).

To describe algorithms in digital games, we must closely account for the software code and how it relates to player experience. According to the new media and software theorist Wendy Chun, digital games and their economies are habitual media when designing such inversions and counter strategies. In her influential book on habit (Updating to Remain the Same: Habitual New Media 2017), Wendy Chun argues that software imposes a habit on us procedurally and that “*Through habits users become their machines*” (2017, 1). Habit in this sense stands for repetition, or the habitual process of learning we encounter when meeting software ideology, with the promise of ever-accelerating updates. This acceleration not only occurs at the level of software computation, but it is also a promise of acceleration for us as users, and within the context of my enquiry, as players. Habit therefore forms a sort of learning which can be described within the context of digital games as *embodied literacy* (Keogh 2018, 14). In digital games, embodied literacy stands for knowledge that is habitually learned at the level of both player body and cognition, when we internalise rules as well as interfacing the interactions needed to successfully play a game. In the following text I will argue that habitual learning of software is connected to a certain software ideology that at the same time fetishises the playing software and commodifies our experience interaction.

In her earlier work on software source code, Chun discussed programming code as a fetish and a medium that masks its operation, in which the code appears to directly operate the function of the machine but rather only addresses the language of the machine to operate it. In other words, the source code is a form of interface between programmer and machine, but at the same time it masks itself as the direct execution of the software, destroying and restarting itself every time the program is run. This undead memory is brought alive only by either machinic or live interaction with the code, which is often masked by the fluid software operation or as the smooth interface of the meritocratic response discussed in the first chapter. According to Chun, this operation comes with a *wish* for simplicity of execution (a software operation without lags or errors that ideally anticipates user actions), a smooth flow in a set of rules and a network of laws of operation, and even for a “*reassuring map of power*” to “*navigate neoliberal complexity*”, largely based on the early connection of development of computers to the military and its inherent sexism (Chun 2011, 28-30). In this sense we can conceptualise software ideology further as undead: a ready space of law and oppression, or as a form of negative agency – an oppressive or authoritarian fantasy of control.

Importantly, for Chun in her earlier paper (On “Sourcery,” or Code as Fetish 2008), the program code is performative, and it enacts certain assumptions about the world in its general operation as it is put in motion by its users or players. It inherently “renders invisible” the “entropy, noise, and decay” of the material world in which the software is run. We, as users with agency, become habituated in this ideal of invisibility, as we perform the ideal writing of the code (Chun 2008). At the same time, there is the assumption that the code operates automatically. Chun argues that this notion is not as important as the fact that the code follows the commands in the entire “imagined network” of the code blocks, syntax libraries, networks of users, and economic production modes. This is always a form of community and relations, where Chun specifically deals with the contrast between open-source code communities and commodified platform software development, in which the first value concepts such as freedom and free speech, while the other is usually imagined as its antagonist. Our

performativity in imagining these network relations has “*political and theoretical importance*” according to Chun (2008); therefore, the process of interacting with software as digital games contains the act of imagining its ideology within a network of relations, in which we are not merely passive recipients.

To compare this with the previous analysis of *Age of Empires II: Definitive Edition*, we can experience this performativity when playing single-player campaigns or while learning to play the game. New players will perform game mechanics based on the assumptions of real architecture, trying to build cities according to their real-life models and share them online or build them for purely aesthetic pleasure. If they were to play a competitive game, they would be driven to build the city plan counterintuitively, to wall their town early by using homes as parts of the wall. A similar effect would be encountered when playing the game’s single-player campaigns which do not pressure players for effectiveness. Players can therefore decide freely which mode of the game they want to perform and play if they have the necessary knowledge about the game system, but their first encounter with the game would demand that they project and enact their previous assumptions on the game algorithm.

As such, Chun’s notion of performativity is crucial for our approach to player agency, as it complicates the argument in the first chapter. We are not only driven by game economic systems, but we also perform them consciously, and as such we might decide to perform against them. Therefore I will be taking player agency as inherently socially performative: Connected to the networks of code and at the same time always performed for our friends, peers and co-players in a networked society, similarly as in the Miguel’s Sicart (2023) argument against technological determinism, which conceives players as always accessing digital games with a given set of shared social settings (for example playing competitively), not only in submission to algorithmic rules.

This ability renders our agency performative in encounters with digital code, building on the techno-deterministic notion of habit, which we can use as a stepping stone for the negation of habit and the conscious negation of various negative procedural rhetoric mechanics present in the digital games (Bogost 2007) and ideological arguments and standpoints discussed in the last chapter. Therefore, when focusing on the notion of (alienated) games, we should focus on approaches that foster *player democratic agency* in the political network of society.

Code fetishism

According to Wendy Chun (On Sourcery and Source Codes 2011, 50) the fetish stands for a substitution of “images for causes” a “false causality” similar to the fiction of self-operating machine based on the code fetishism – the fluidity of computer code operation masking the material and hardware background of the code execution and operation. Chun follows Marx in her conceptualization of source code fetishism. According to Marx, commodity fetishism³⁰ is an illusion that we project on products of

30 ” [T]he definite social relation between men themselves which assumes here, for them, the fantastic form of a relation between things. [...] to find an analogy we must take flight into the misty realm of religion. There the products of the human brain appear as autonomous figures endowed with a life of their own, which enter into relations both with each other and with the human race. [...] I call this the fetishism which attaches itself to the products of labour as soon as they are produced as commodities and is therefore inseparable from the production of commodities. “ (Marx, Capital: Critique of Political Economy, Volume One 1990, 165)

labour that they become *autonomous figures* with life and social relations between each other, and, as such, obscure their value in their social relations hiding the labour context of their production. (Marx 1990, 164-167)

The code is objectified in a similar sense in capitalism and in various forms of exchange, seemingly almost as thing embodied with its own life. In its commodity form, code can be seen as a *magical entity*, but according to Chun, it is still tied to events outside of it: it is still *performative*, relying on the pre-constructed *human and machinic rituals*. (Chun 2011, 51) Expanding on Marxist approach with psychoanalysis Chun concludes following Žižek, that importantly the performance of fetishism is always conscious, and therefore the *knowledge* of the fetishism alone is not enough. (Chun 2011, 53). In our context, knowledge execution in digital games depends on the options of the player agency in given forms of possible game value exchange, as discussed in the first chapter.

The code only runs the program on the machine, which is the basis of operation with a predefined language, non-virtual energy consumption, and the entire environmentally demanding production process of parts needed to run the computer.³¹ As such, the ideology of code fetishism obscures the real process in favour of fictional processes. Digital games as code aren't only driven by ideological status quo of naturally alienated processes as conservative rhetorics of post-gamergate push in masculine-oriented game narratives: to battle these “*we must reconsider how videogames are experienced*” (Keogh 2018, 197). Following Chun's argument, the digital game code is inherently open to any speculative context if we take a de-fetishised view of the digital game's operation. According to Crogan (2011), if games follow strategies that break industry standardisation and commodification, they can be freed from their conservative, military, or capitalist backgrounds, which are part of their ideological superstructure.

Player attitudes and democratic agency

As mentioned in the introduction, a recent meta-analysis (Kolek, et al. 2023) highlights how game narratives shape player attitudes. They implicitly influence player opinions, reflecting the ideologies of game designers. Interestingly, game duration did not significantly impact upon explicit attitude change or perspective-taking. Instead, meaningful interactions and stereotyping through game mechanics and descriptions of the personality attributes of game actors drive attitude change. This emphasises the importance of altering game narratives and mechanics, as they employ ideologies that affect our daily lives.

To democratise critical games we should aim for a synthetic approach, as narrative games can foster negative patterns and ideological thinking, while persuasive games will often convey a biased message which can be rejected by oppositely biased audiences, as also shown in (Flanagan and Jakobsson, *Playing Oppression: The Legacy of Conquest and Empire in Colonialist Board Games* 2023). The answer is the democratisation of player agency on both narrative and mechanical levels, so the games can simulate a form of deliberation and democratisation. Therefore, critical games should aim for democratic agency in their mechanics, and my argument is that this needs to be done on the level of materialist perspective concerning alienation in today's

31 For climate impact of downloading, console production or playing games see for example: Doctoral Thesis *Climate change implications of gaming products and services* (Aslan 2020).

capitalist societies, both on subjective and objective economic levels, as hiding the forms of alienation is only another form of ideology in game narratives and mechanics.

Democratisation, within the context of this chapter, is taken as a conscious *opening* (Chun 2011, 45) of digital games, source codes, or programming to various agendas of users, players, and developers. However, opening itself, if it remains only on the narrative level, does not necessarily bring a critical perspective. It may even alienate its actors further if the material contexts remain dominated by technological information or production capital, as shown in the process of democratisation of programming in (Chun 2011, 45-46). I consider this in wider social contexts, since the culture, ideology, and ownership of the code are social issues connected to political narratives and the way we perceive our agency in society through the lenses of dominant ideologies (Marx and Engels 1932). The option of democratic agency remains scarce and would depend on simulating the other agencies – as meaningful agencies within the game mechanics, narratives, and allegories, that would include multiple game actors, not only the dominant player agency.

Ecogames and player agency

There has been a recent surge of climate crisis games taking various positions of ecocriticism, survival dystopia, or energy utopias, or on the other hand of petromasculinity (Beke, *Anthropocene Temporalities in Videogames: The Anthropocene as a Structure of Feeling in Popular Gameplay* 2023). Prominent examples of such games include *Beecarbonize* (2023) by the Prague-based studio Charles Games, while examples of dystopian games include *Death Stranding*. Popular example of builder strategies beyond *Civilization VI: Gathering Storm* is *Frostpunk*, game series dealing with the highly problematic survival narrative of a player taking on the role of a city autocrat aiming to build a coal-based economy to sustain a new settler city, refugees, and scientists who have fled to an uninhabited arctic wilderness to survive the global cooling crisis.

In our times of increasing impact of human technology and activity on the planet's ecosystems, human production and consumption have induced global warming and the crisis of an era described as the anthropocene – a geological era in which human activity predominantly defines the working of all Earth's systems. Ecogames are often strongly influenced by anthropogenic ideologies. These are not only the ideologies of capitalist exchange and improvement, but also, according to the game scholar Paweł Frelik, the techno solutionist strategies prevalent in planetary colonisation games, as well as settler colonialism fantasies, and climate change simulations that portray technology as an almost magical fix for the current crises (Frelik 2024, 281). The imagination of miracle fixes ranges from technologies of carbon capture to even more speculative technologies which promise both economic and social leaps, to work almost the same as steps in the technology trees of the *Civilisation* series or other strategic games with research trees (Beke 2023, 64-65). Such imaginations allow players to leap from a crisis to its solution within a few clicks, but sadly the real implementation of these solutions is not so easy. Climate crisis impact mitigation policies currently face strong opposition, and the feasible outcomes of technological solutions are often insufficient to tackle the accelerating increase of crises connected to the challenges introduced by climate change (IPCC, 2022: Summary for Policymakers 2022).

The Frelik term of anthropocene ideologies (Frelik 2024, 281-285) can be summarised by (1) belief in techno solutionism, where technological advancement solves actual and future problems – humans are the rational economic managers of nature split into recognisable biomes; (2) belief that natural disasters in colonised locations are not

caused by human activities; (3) following the game scholar Alenda Chang (Chang 2019), by belief in the precision of human action, which can channel technological solutions to fruition in the face of a crisis; (4) in the idea that combination and switching between extraction and construction modes can solve any issue arising from previous action-oriented beliefs, where the impact of extractivism on nature is seen as negligible, often only serving as an incentive for nomadic travelling to extract remote resources' (5) the belief that (speculative) energy production is clean without any environmental impact, which also applies to various raw resource processing chains; and (6) finally, for Frelik, this summarises the ideology of two sides: positivist ecoconstructivism and terraforming geoconstructivism, meaning, following on from (Abraham and Jayemanne 2017) "*that ecology is really economy*" where the player succeeds in in-game economic growth (Frelik 2024, 284).

For Frelik simulation games often oversimplify planet ecosystems, which they also link to capitalist ideologies of economic development and improvement, where any deeper view of the ecological "*interdependence of various zones and biomes is virtually nonexistent*" (Frelik 2024, 282). Similarly, with the logic of capitalist and anthropocene ideologies, the depiction and game systems of democracy are rudimentary in most ecogames, as the depiction of democracy follows the same capitalist and interrelated anthropocene techno-optimistic ideologies and solutions which do not leave any space for other actors' agency, since the idea of democratic discussion is not central to its rhetoric. In the face of a crisis, managerial player agency and technological solutionism are centred in games such as *Frostpunk* and *Civilization VI*. The idea of democratic decision-making is simply not an integral part of the simulated economies and player gameplay decision-making, as strategy games omit introducing a dialogue with the other. To counter the imagination of ecology as another form of economic production, we can introduce a democratic discussion with other actors, sharing and exploring their agency rather than centring player agency around sustaining, or even increasing, accumulated value per turn.

Capitalist economic ideologies and algorithms define the ecological thinking in the latter games, hiding the impact of miscalculated technological solutions and extractivism in overreaching improvement. In this sense, they are also effectively hiding shared workers' labour and managerial agency that would lead to the fruition of such solutions. Successful strategies need only follow the capitalist growth logic, as also shown in the first chapter using the example of an algorithmic (eco-)economy of utopian exchange in *Civilization VI: Gathering Storm*. Ecology may be often related to economy, as is almost everything under capitalism, but the ideological layer here is related mainly to the growth and improvement of capital ideologies connected to the fiction of markets and modes of exchange prevalent in colonial and climate games – it is indeed a utopian economy, as for Frelik also "*planetary colonisation games espouse a degree of utopianism. [Where] given sufficient time, each obstacle can be met and overcome.*" (Frelik 2024, 286)

However, can we solve the overrepresentation of authoritarian (negative) agency in games by merely reconceptualising some form of positive player agency in a dialectic manner? Péter Makai (2024) argues that as designers we can "walk a fine line" between making the game too difficult and giving players too much power and agency. Similarly, as already mentioned in the negative agency discussion above, positive agency might give players too much comfort that the status quo is actually viable and only requires minor adjustments to stay on the right track. This notion is very important, as positive forms of agency might yet be another trap. Therefore, the notion of democratic agency should always aim to go in a participative vector, leaving decision making in the game as a form of lively dialogue between actors that ultimately directs player agency outside of the magic circle of game towards real (activist) action: protest,

discussion, or conceptualisation of feasible climate crisis mitigation action. In the end, the emissions we produce by making and playing games are a real issue, and as such we need to direct the energy spent in games outside of the gaming box.

CONCLUSIONS: DISMANTLING COLONIAL AND EXTRACTIVIST GAME NARRATIVES

During my research internship in 2022 at CoFUTURES – an international research group focusing on collaborative futures, decolonial, and ecocritical approaches to science fiction, the arts, policy, and technology at the University of Oslo – the science fiction scholar Boddhisatva Chattopadhyay opened our seminar by stating that there is no terra incognita, an opening to a short lecture that remains stuck in my mind when thinking about designing and playing games to this day; indeed, there never was any empty unknown land that could be shaped and conquered. As much as futures have been stolen with the process of colonialism, the possible fiction of game space and world travelling is hard to imagine.

We have encountered extraction in the analysis of *Civilization VI*, but we cannot directly describe it as mining, but rather as resource cultivation. The only case of extractive mining in *Civilization VI* is resource exhaustion, which destroys resources for one-off profit. This is a very unrealistic depiction of real-world production processes, based on the extraction and mining of fossil fuels and other resources as precious metals for digital technology production. In *Age of Empires II: Definitive Edition*, players encounter mining and extraction much more realistically during the whole process of the game's allegorical capitalist production.

Alena Cicholewski, in a close reading of two games (80 Days 2014) (South of the Circle 2020) thematising Arctic exploration, describes the exploration stereotype of polar regions as “empty spaces that await white male European conquest” (Cicholewski 2023, 8). This is a slightly different reading from the one with which we started this chapter, but it holds even though I believe that *80 Days* in particular does a lot to battle colonial exploration stereotypes. Exploration (of terra incognita) is a stereotypical fantasy connected to the tabula rasa of undiscovered lands, which are either supposed to be uninhabited, awaiting colonisation, or inhabited by Indigenous populations often described as agencyless in contrast with the colonisers.

Such an image of agency places the indigenous people in the game in the position of either dehumanised or monstrous enemies (Švelch 2023), as in *The Forest* (2014), where players fight indigenous semi-human tribes to survive in the wilderness. Another common trope describes the indigenous population in the position of passive receivers of help who are endangered by industrialisation or Western civilisation, as in *Red Dead Redemption 2* (2018), where a player (white male) can opt to help the remaining indigenous population fight aspects of colonial extractivism. Players can pursue this quest with the goal of promoting good aspects of Western civilisation—individual freedom over industrial progress and extractivism that destroys nature in the surrounding environment. However, this is done only by fighting individual protagonists of extractivism with no real intention of changing the larger structural background of settler colonialism, ultimately leaving the player settling in the area while fighting another evil indigenous tribe. In other words, players can promote colonisation and capitalism with a human face, but do not question it.

World travelling can follow colonial narratives when employing negative agency or the accumulation ideologies when visiting and harvesting “*uncharted isles*” of *RuneScape* (Jagex 2001) and many similar games, including secluded or empty land. We encounter narratives of the Age of Exploration, where uninhabited islands are mostly means for claiming resources, or for colonial expansion (Lallani 2023, 551-552). But this happens when we view the environment through the lens of resource accumulation, or merely as an antagonist to player agency (Abraham and Jayemanne 2017, 82), in other words when we see the gamespace as a space of agonistic conflict and survival rather than as a place to visit.

In the example of the games discussed in the last chapter, this would represent a parallel with the settler colonialism of utopian exchange and violent extractivism of negative exchange. These approaches leave both the inhabitants and the nature of the colonised empty space de facto agencyless, and finally depict the empty spaces in a gamespace as a playground, testing players’ individual endurance in the face of harsh conditions (Cicholewski 2023, 15). Even critical approaches to colonisation narratives leave an open case for colonial player agency when the agency of various actors is not reflected in the game mechanics, or when not leaving space for meaningful player action in collaboration with the gamespace and its denizens.

Game researcher Souvik Mukherjee describes player experiences of postcolonial narratives and the construction of personal histories in a paper (Playing Subaltern: Video Games and Postcolonialism 2018) on the experiences of postcolonial narratives and alternative history construction in the analysis of strategy games, where narratives of empire, colonialism, and capitalism are deeply interconnected. This is especially visible in the *Civilization* series and *Empire: Total War* (Creative Assembly, Feral Interactive 2009), where players can build alternative narratives of historical conquests, often based on the option of experiencing them in reverse. For example, by conquering the world while playing as a historically colonised nation, the reversal of colonialism might also be much more subtle and critical,³² as shown by the example of historical speculation offered by the *80 Days* subversion of the original colonialist narrative. For Mukherjee, the first example of reversal can be “unintended” and still deeply tied to the colonial modes of play present in both game series and their cartographic overview of the given territories as a space of political power and classification.

Gamespace – if thought of as a map to be conquered or a space to be split into parcels – is the imaginary space of cartography, constructing the other, even in the heart of the empire, based on the logic of colonisation, which similarly to capitalism creates surplus and excluded populations. In accordance with Spivak (2008), the subaltern spaces and populations are left on the margins of the infrastructure and culture of the empire (Mukherjee, Playing Subaltern: Video Games and Postcolonialism 2018, 509-510). Digital game subaltern representations are mostly depicted as losing or having no agency, where the others can be the native populations or non-playable characters. In addition, the game representation of colonised subjectivity has almost always distorted historical backgrounds and realities, folding the subaltern representation even further towards the player perspective (Mukherjee, Playing Subaltern: Video Games and Postcolonialism 2018) (Lallani 2023).

There are a number of digital game ideologies of terra incognita, the rags to riches narratives and farming to conquer in *Age of Empires II: Definitive Edition*, and the

32 More on fiction of empire also discussing *Age of Empires II*, by Souvik Mukherjee in (Mukherjee, S. (2017). Videogames and postcolonialism: Empire plays back. Palgrave Macmillan. <https://doi.org/10.1007/978-3-319-54822-7>)

settler colonialism fantasy of *Civilization VI*. In addition, there is the fantasy of starting anew after the ecological crisis in the dystopian de-inhabited space of shared agency in *Death Stranding*, or alternatively the troubled inner-state colonisation of the onset of capitalist production in the wilderness of *Red Dead Redemption II*. However, there is a need for a *troubled utopia* in game politics, or rather a rationalisation of democratic agency with players and other game actors. While recalling loving world visiting by Maria Lugones in game design, it is possible to create speculative alternatives to the usual game exchange, which offer the possibility of (economically, materially- / agency-) troubled visiting. This can be illustrated with the Haraway's conception of trouble (Staying with the Trouble 2016, 1-3) as not only a condition, but also a possibility to stir up shared present. The notion of shared *thick* present also allows players to stay with the affects of the troubled future in digital games such as *Frostpunk*, as discussed in detail by Laura op de Beke in her dissertation (2023) chapter on weathering dark seasonality. I believe one of the great examples of such troubled loving visiting is getting to know the residents of the inhabited space in *Citizen Sleeper*, where the player can finally escape the space station, but the question posed by the game asks whether player can leave the other game characters behind.

Showing possible alternative economies such as gift economies seems to be a valid strategy, but on the narrative level it is important to critically address the real issues connected to alienation, capitalist accumulation, and the problems of exploitation, extraction and colonisation, as described in detail in the first chapter. To follow up on the argument from the second chapter, highlighting alienation allows for such critical speculation. Or to paraphrase the game scholar Holger Pötzsch's research on Shklovsky, Brecht and Boal (Pötzsch 2017), some estrangement of real-life alienation is needed to bring up critical speculation within the player experience of the game on both narrative and procedural levels.

The artistic subversive and speculative strategies of alienation are also more promising for critical games that foster democratic player agency, as they can employ critical thinking both on the level of the narrative and of game mechanics with the use of the two concepts of alienation. Importantly, player interaction with the game is always performative, and as such deals with both positive and negative forms of agency, in which the performativity of the game algorithm is ideological, similar to the performativity of the code. When speaking of games and ecology, we should think about a game design that would allow the player agency in collaboration with the environment and nature, not agency focused on a struggle against natural obstacles or dangerous events. The procedural and narrative lack of agency of the other (the non-player) renders either non-playable inhabitants or nature itself mere tools for value accumulation or amusement.

The ecogame scholar Alenda Chang, in her seminal book *Playing Nature: Ecology in Video Games* (2019), argues that the gameplay of player versus environment (PvE) will always tend towards survivalist, extractive, and catastrophic narratives, instead of promoting collaborative narratives between a wide range of actors (Chang 2019, 201). Such broad collaborative narratives with experience from multiple agencies are needed to create games that will bring meaningful approaches to climate crises, and I assume that they require consideration when conceptualising games that would not perpetuate the narratives of terra incognita. The anthrome (Chang 2019, 7-8) is a key concept for reading the above, which stands for a simulated or real biome that only serves player or human activity, supporting human agency rather than incorporating the agencies of non-player or non-human actors. For Chang, the anthrome is never sustainable, since in the best cases it is dependent on human stimulation, and sustainable farming is still heavily dependent on fossil fuels. In this logic, game designs should opt for degrowth and imagination of lesser human input, rather than escapist fantasies of building against

dangerous nature in various “*rags to riches entrepreneurship*” settings. Importantly, such designs of games should show “*alienating drudgery and demoralizing failure*” – estranging objective alienation – while representing human-settled nature as they build general cultural narratives of these settings for large numbers of players worldwide (Chang 2019, 175-176). The narrative of the isolated anthrome leads to the imagination of improvement for increasing production. As such, the game worlds are “*like [isolated] islands – (porously) bounded zones, with comparatively few parameters, where cause and effect are magnified and lead more easily to a reckoning.*” In other words, they are a colonial fantasy of *fragmented biomes* and *experimental mesocosms* (Chang 2019, 212) that can be played with, analysed, mined, and improved within the capitalist logic of increasing production. This is a strikingly accurate description of game simulation in terra incognita settings. Following on from Chang, we should aim for forms of resistance and shared agency within the game world’s environmental imagination.

Interlinking relations between various actors’ agencies is a necessary element in critical strategy games, so that players can imagine and experience alternatives within game worlds. For critical and speculative thinking beyond the enclosure of the gamespace on the separated islands, it is essential to utilise the gamespace as a means of troubled and loving world travelling; in other words, to allow the performance of non-extractive modes of play, enabling players to meet and experience the other’s agencies, while experiencing their alienation as nothing normal.

4. Strategies for Critical Games: Beyond Extract and Exchange

In this dissertation I consider three levels of normalised capitalist gameplay. First, on the level of game markets and game value economies, following the paradigm of accumulation within utopian and negative exchange. Second, on the level of player alienation, which can be simultaneously obscured and normalised by the game narratives and procedural rules of the studied strategy games, which revolve around paradigms of improvement. Third, on the level of game code performativity, players, along with game rules, tend to further normalise the paradigms of accumulation and improvement with player action and agency afforded within the game design. Here I draw conclusions and a heuristic framework for designing (alienated) games and speculative game experiences that go beyond the paradigms of game exchange, alienation, and performativity of contemporary capitalism.

In the last chapter I discussed troubled utopia as one of the means of possible advances in gameplay as a world travelling in speculative games, namely in ecogame procedural fiction. The troubled utopia designs estrange the usual capitalist narratives of improvement, and in the case of ecogames the technologically oriented narratives often paint magical solutions without addressing modes of extraction or colonial politics that perpetuate ideologies of resource extraction in the first place. In such a case, the leaving of capitalist paradigms is essential in order not to perpetuate an environmentalist focus on narratives of wealthy economies and techno-fixes (Beke, Laura op de, Joost Raessens, Stefan Werning, and Gerald Farca, eds. 2024, 29), which were discussed in the first chapter with reference to the case of *Civilization VI: The Gathering Storm*. The mere focus on technology trees in these games, according to the argument of the ecogame scholar Laura op de Beke, cannot create viable ecological narratives, as they promote economic expansion with the idea of future clean technology instead of opting for cutting emissions in the near future (op de Beke 2020). The design principles proposed here rely on employing a democratic agency and embracing the world, travelling through experiencing shared agency. That is, on the level of troubled utopia, keeping in mind the possibility of a political agency of non-accumulation and non-domination in an otherwise alienating political struggle.

I have argued that ecogames play a crucial role in contesting the ideologies present in digital games as the medium gains increasing attention across the political spectrum, which often advocates for the further destruction of ecosystems. These are often growth-oriented economic narratives that directly demonstrate the destructive impact of capitalist narratives and modes of production on nature and society. At the same time, however, capitalist production modes are directly defended in mainstream game fiction, such as the *Civilization* series, and the speculative alternative – such as troubled utopia – is hard to imagine even in contemporary independent and auteur games largely narrating dystopian futures (*Citizen Sleeper*, *Death Stranding*, *Disco Elysium*).

Considering ecogames, there is an important focus on the palpable impact of players' decisions when designing player agency affordances as understood by Bettina Bódi's definition (Videogames and agency 2023). To achieve this, we can also remember Alenda Chang's principles for affectable ecogame world generation, following Rousset's earlier permadeath (rogue like) game criteria: where the generated game world must achieve (1) significance to the player, (2) uniqueness of the life simulated by the game, and lastly (3) introduction of a risk that both might be *irrevocably lost* (Chang 2019, 220). The performativity of such loss is not only an option for dark or

negative player agency, but also a moment for a performative estrangement of values normalised within capitalist economies, and even for imagining not losing the game at all.

The dystopia of permanent loss might tend to create narratives of either the status quo or resignation (Bailes 2019), forms of exceptionalism (Chang 2019, 92), or even loss of the feeling of the game world altogether, while viewing political struggles as being possible to be effectively addressed only by a privileged class of top-down rulers or by a singular (monomythic) authoritarian hero. As described by the game researcher Stephanie Jennings (Only you can save the world (of videogames): Authoritarian agencies in the heroism of videogame design, play, and culture 2022), monomythic authoritarian sensibility pervades contemporary mainstream game production and creates an ethos of single player decision making over forms of collective narratives. Monomyth here stands for imagination and narratives of (single-)hero journey, that changes the game world. In contrast, the troubled utopia offers a middle ground in this sense by introducing caring in precarious worlds beyond mere catastrophic imagery or techno-fixed utopia. Following on from Chang (2019, 234), I am thinking here of troubled utopia games that present the idea of climate urgency, but which at the same time prefer shared dialogue over simple didactics and declamative poster-like representations.

A THREE-LEVEL HEURISTIC FRAMEWORK

The *three-level heuristic framework* formulated here, based on the three chapters of this dissertation, can contribute to critical and speculative game projects, as well as the analysis of digital games. As already described in the introduction, the heuristic method does not offer an exact or grounded theory, nor a precise design principle; it offers tools for adopting a critical or speculative perspective on the chosen aspects that allow the analysis of interconnections and solve design problems based on answering a series of heuristic questions. Hopefully, the heuristic approach will help designers and researchers gain confidence in opting for bolder innovations in game design and study. The heuristic framework is grounded in the analysis and theory discussed in the above chapters, and I also offer a selection of case studies that apply it to selected games in the coda of this dissertation. Now let me summarise the key levels of questioning, game exchange, alienation, and performative player agency.

(1) *Exchange*: Analysing how the utopian and negative forms of exchange are manifested in the given game. Are there forms of exchange present beyond utopian and negative exchange? Is there a form of value accumulation in the game market beyond forms of extractivism? What are the procedures and rules governing the mode of game progress value accumulation in game exchange through procedural player labour, and are these procedural allegories represented on the game narrative level?

(2) *Alienation*: Examining the allegory and representation of alienation on both narrative and procedural levels within the game. How is the game economy portrayed in relation to the game actors? Do the game actors possess any historical context of alienation (e.g. enclosure, primitive accumulation, or similar phenomena)? Is there a representation of alienation within the game mechanics? Can players analyse the actor's objective, subjective, and synthetic alienation through narrative and procedural representations in the given game?

(3) *Performative agency*: By examining the above levels, we can discern the game ethos from the procedural and narrative game exchange and alienation representations. Based on this, we can study the player's agential affordances in the game: How are players led to perform the game exchange and alienation by the game mechanics? Can players subvert game allegories, procedural mechanics, or ethos? Are there possibilities for shared agency with other game actors and is there a potential degree of democratic agency? Can we discuss the concept of loving visiting in a given game beyond the modes of game value accumulation and extraction? Is there any meaningful option to experience troubled utopia in the game?

The game ethos, or synthetic algorithm in more procedural games, also shapes the performative game ideology. This framework largely considers game ethos on the narrative and procedural levels, but it can also be applied to specific areas, namely game ideology and designing critical procedural rules or analysing game performative affordances.

It can be easy to forget the affordances of digital interfaces and their physical externalities using a code or procedurally focused analysis. There is a difference between encountering an office computer keyboard and holding a PlayStation Dual Sense controller. For one thing, interfaces allow for embodied literacy (Keogh, *A Play of Bodies* 2018), but also, as argued by Aubrey Anable in *Playing with Feelings* (2018), both game codes and interfaces bring specific affects. For Anable, these affects define our relationship to the game and, more broadly, to the machine we are using. In this reading, the game installed on a PC might make the workstation feel more human, or a home screen on PlayStation might make the platform interface feel cosier.

For Anable, games employ a wide range of affects (in a broad sense, standing for structures of feeling) that have substantial connotations regarding how we feel about social issues, such as work or meritocracy in daily life. They are employed by game-created temporal, affective, and procedural habits that follow structures of work life and economic rhythms of capitalism, but also those afforded effects of digital game interfaces work as a sort of contained self-standing archive of structures of feelings in their given historical era (Anable 2018, 134). Therefore, the underlying question of the framework can be how to break these archives or, even better, how to afford players the ability to speculate beyond such archives.

Here we can also bring in Cameron Kunzelman's term *mechanics of speculation* – "*To call something a mechanic of speculation is to say that it activates speculation within a player*" (Kunzelman 2022, 28). This notion stands for game mechanics – following Miguel Sicart's definition³³ and moments that allow speculation within game – or players asking the *what if* question. In practice, this can mean various moments of encounters with the game interface (unusual key bindings or forms of physical controllers) and specific game events stemming from game rules that direct players to fill in the gaps (as with Ian Bogost's enthymeme) between actions and representations. If such mechanics are oriented towards the *what if* question, they can allow players to speculate beyond the bounds of the game's procedural representation. The mechanics of speculation or the direction of player agency are central to settings in which game

33 Where game mechanics are primary and secondary core game rules and systems of interaction with the game, that allow player action, agency, and progression through the game. (Sicart, *Defining Game Mechanics* 2008)

designers or artists consciously aim to produce thinking beyond the ideological outlines – in other words, thinking through games that allow play modes of speculation.

Notably, the game mechanics of speculation can be considered adjacent to Brechtian estrangement strategies, since speculation can occur not only in the shock of breaking machine code errors but also in subtle undermining of player preconceptions about the workings of game rules, mechanics, or narratives (Kunzelman 2022, 43). Game mechanics for Kunzelman stand for (1) rules and affordances of action – the ability to build, move avatars, shoot, and more – but also for (2) reasoning the solutions and winning strategies within given game, and (3) more broadly - following on from Sicart (2008) and also in line with Bódi's definition of player agency (Bódi 2023) – the given way of engaging with the game world within the possibilities afforded by the given game rules (Kunzelman 2022, 44-45).

In these readings, we might see an overlap between the analysis of game ideology, player agency, and speculative game mechanics, and thus conclude that meaningful player agency is connected to player speculation. Radical thinking through a game allows for speculation with the game mechanics by subtly estranging players' conceptions of the game: its avatar control, possibilities of player agency, economic rules, and interconnected affordances of mechanics through the course of playing.

ALIENATED EXCHANGE AND GAME DESIGN PRINCIPLES

With this approach, speculative mechanics can be conceptualised and designed using the lenses of the three-level framework presented above. If we base a set of design suggestions on the framework, the decentring or democratising of player agency, control, and narrative of exchange constitutes the focal points, along with inventing modes of exchange beyond growth-oriented extraction, exchange, and accumulation game mechanics. In this context, decentring refers to the removal of full agency over the game world from the player as the sole arbiter. This approach should be used through a combination of alienation-adjacent game strategies and a speculative mechanics. This combination of decentring player agency and emphasising, exchange, and alienation can effectively disrupt the authoritarian agency of the monomyths of the singular player hero.

Based on the three-level framework, the question of designing either procedural or narrative exchange with alienation and material contexts of affordances of value accumulation in the inner game market is paramount. **Alienated exchange** uses a decentred player agency and troubled loving visiting. This also does not paint the game world in brighter colours, but still allows for utopian thinking. Alienated exchange should highlight the forms of objective (material, class, identity, and agency) and subjective alienation (feeling and affect). A good example of such an exchange might be *Death Stranding*, where accumulation is needed to progress through the game story but is perceived critically on both procedural and narrative levels. Alienated exchange aims not to solidify the completive aspect of the game, but rather to open up a venue for speculative mechanics, which allows for asking questions beyond the pure agonistic and competitive narratives of capitalism. Importantly, in the spirit of loving visiting, alienated exchange also allows interactions other than exchange-oriented ones with the game world in the process of getting to know its denizens and other characters.

Alienated game imagination follows the procedural level of game exchange on the narrative level of troubled utopia. In this sense, we can read democratic agency as a project of the actualisation of performative dialogue within game design. Such agency

is allowed by degree game actors' freedom and player non-domination principles, as described in our ongoing research on democratic agency elsewhere (Štvrťnová and Hauer forthcoming). Estranging and decentring player agency is critical for highlighting alienation within game design, as it allows players to adopt perspectives of other game actors while not dominating their actions. Keeping this in mind, the exchange of game value created by player labour for progress is a tool that constructs the modes of player labour within game economies, contributing to game ideologies, and overall ethos. These affordances need to be considered, as they construct the game mechanics that maintain player game loops throughout the entire duration of the game. At the same time, both player agency and labour are not only allegorithmic and procedural, and successful design principles need to consider both together with narrative.

With this in mind, let me conceptualise the list for alienated game exchange design principles by considering the estrangement of alienation, game exchange focusing on material politics, loving visiting, troubled utopia, and democratic agency:

- 1. Highlighting alienation on both objective and subjective levels in narratives and algorithms of procedural exchange.**
- 2. Considering alienation as a strange state in both game narrative and economy, while estranging it by not accepting its politics of the status quo.**
- 3. Highlighting material and technological contradictions and production relations inherent in fictional game economies.**
- 4. Enabling playing in the mode of performative (playful and troubled) visiting.**
- 5. Fostering democratic agency and decision-making by decentring it through the sharing and visiting agency of other actors.**
- 6. De-fetishising game exchange, considering game space as a space for troubled (and loving) visiting.**
- 7. Allowing an option for troubled utopia as not always defined by growth-oriented exchange and economy.**

(1) *Highlighting alienation on both objective and subjective levels in narratives and algorithms of procedural exchange:* For example, by playing the game from bottom-up perspective and in conversation with the game space, not only from the position of managerial and authoritarian power. Such game designs should not forget the material alienation of game actors and should show limited resources, power, or exploitative work conditions.

(2) *Considering alienation as a strange state in both the game narrative and economy, while estranging it by not accepting its politics of the status quo.* Games that see alienation as a common state between game actors and do not focus solely on monomythic and arbitrary neoliberal subjects can offer alternative narratives by focusing on shared agency between the game actors. This also aims at estranging the representation of alienation or the alienation in the game allegorithm. For example, by not accepting its status quo as a natural state by representing only alienated dystopia narratives, or procedural negative exchange without the option of stepping out of the agonistic game mechanics, or for example the utopian growth-oriented game economy (the mode of exchange of player time for game value).

(3) *Highlighting the material and technological contradictions and production relations inherent in fictional game economies.* Focusing on the economic or material conditions of game worlds in relation to the given ideologies, their contradictions, and affordances. With highly competitive game mechanics, the game economy may alienate the player in a certain way to make a critical point, or vice versa; a non-alienated economy may be designed to estrange the idea of a capitalist competitive economy as a natural mode of operation.

(4) *Enabling playing in a mode of performative (playful and troubled) visiting.* Seeing the game code as inherently performative in multiple directions of possible player agency afforded by game design. Not fetishising game code/simulation as a self-sufficient commodity form, affording players experiencing shared agency beyond dystopia, while fostering player agency to choose relevant agencies. For example, if the game criticises violence over the game world, it should offer non-violent game mechanics, not only on the narrative level but also procedurally, which allows for a de-fetishising of the game code, its rules, and mechanics.

(5) *Fostering democratic agency and decision-making by decentring it through the sharing and visiting agencies of other actors.* Player agency can be focused on player subjective power over the game world; removing player dominant agency is central to democratic strategies that might subvert the dominant power narrative by allowing troubled/loving visiting at the core game mechanics. This prefers affordances of decentred democratic agency with player non-domination and the degree of freedom of other actors to choose their agencies within the material context of imagination. As already suggested, decentring can be achieved by introducing dialogic rather than agonistic forms of play and game rules. This can be done in degrees in order to maintain the critical, speculative, or estranging edge of the game exchange.

(6) *De-fetishising game exchange, considering the game space as a space for troubled (and loving) visiting.* Other than being a space of commodity optimization and conflict, games can be based on loving visiting of game actors (personalities, agencies, but also whole struggles or ecosystems). As in the code of the game, there is no need to fetishise game exchange as the singular focal point of game mechanics; if the game allows speculative agency with exchange mechanics, it can also question the economic realities: *What if the game characters could exchange differently or not participate in exchange at all?*

(7) *Allowing options for troubled utopia as possibly not always defined by growth-oriented exchange and economy.* The critical question of defetishising the code and economy of the game is to remember the economic conditions in the game rules and mechanics. These define player agency as allowing meaningful interactions with the game world. Player subjectivity is not always trapped within economic terms, but various players' feelings and affects stem from algorithmic forms of exchange. The question is what kind of speculation does the given exchange mode enable? For example, exchange in *Age of Empires* allows the representation of history that is limited to competition with other actors. The game exchange in *Death Stranding* allows for community-oriented affects of loving (or troubled) visiting, meeting the denizens of the game world, and getting to know their motivations, agencies, and affects. To make this work, the game economy should be highlighted and made transparent to a large degree, while allowing more than mere competition of negative exchange or representation of limitless growth and improvement of utopian exchange. In summary, players must be able to experience the world beyond the exchange and at the same time not succumb to pessimism.

These points are normative recommendations which can be considered within the three-level heuristic framework for designing critical and speculative games, or for analysing already existing games and their economic-ideological narratives. When designing an alienated exchange, only selection of these might be used at varying levels, but as described in later chapters, I would expect that the result of the final game will be highly dependent on the level of player agency, its decentring, and the economic forms of exchange the given game would allow its players. Finally, the bottom line is that game exchange is always an allegory and representation of real word ideologies and politics and must be considered both an archive of a given era and a possibility for speculation. Here I was concerned with the economic alienation and democratic performativity of (decentred) player agency as two motions that can allow speculation and may even be an alternative to capitalist game economies that are prevalently focused on the improvement of value extraction, accumulation, and exchange. If we account for historic and radical games (Flanagan and Jakobsson 2023) (Flanagan 2009), we can see that these are not singular paradigms of games and that we can be excited about the possibility of something completely different in the future. We need only break the hegemony of the current paradigm over the digital game medium. These are certainly not the only options in the game designers' and artists' repertoire, and I would expect these to be combined with further critical frameworks such as ecology, science fiction or labour studies.

CODA: ALLEGORIES OF PLAYER LABOUR

“As long as science fiction games continue to appear and offer us subjectivities that afford potential labor, we will continually kick our capabilities forward in time, aimed towards an economy to come in which our skills will make us fit perfectly.” (Kunzelman 2022, 100)

With the above, we can see that even alienating games and those critical of labour can fail to produce a consistent critique if they fail to define the workings behind characters' alienation in the game economy and, as illustrated by Cameron Kunzelman, they might further teach us how to become better capitalist workers even if we choose to play them critically. We have already tackled the problems of game labour as an allegory of economic labour relations, and games as a labour process education or as an embodiment of certain labour processes, but within game exchange magic happens when you work only by pretending. When the player plays a game her labour and attention creates value within the game system seemingly out of nowhere: Game commodities pop into her inventory without any visible infrastructure, and with no decay as observed by Castronova's seminal game economies paper (2001). The question relating to speculative player agency is how to design the allegory of labouring players critically, possibly without fetishism. Digital games can be critical or uncritical of labour, but the issue of critical speculation remains if the underlying ideology affords only commodity fantasies. Like ideological allegories of exchange and the market economy, digital games can work for capitalism by defending it as a reasonable status quo but also against the primary intuition by taking the opposite standpoint. As noted by Kunzelman, Anable (2018), and Brendan Keogh (2018), games teach us to embody labour-oriented habits and literacy via their control schemes, game loops, and affordances that may contrast with the rest of their procedural and narrative ethos.

This is well illustrated in Kunzelman's chapter on labour in games which focus on labour, such as the bizarre KFC training game *The Hard Way* (W+K Lodge 2017). Allegories of labour can be subversive, but even subversive games can function in defence of capitalism or neoliberalism – they can present the idea of alienated labour, but at the same time this notion does not have any further speculative potential (Kunzelman 2022, 94-97). Again, this brings me to the importance of allowing players a form of speculation for positive outlooks concerning speculative game mechanics with player labour cycles. In my own experience, there are such affordances of player labour designs in role-playing games with a rags to rich ethos.

To recall the illustration from the introduction, when I was around 20 years old and engaged in raid activities during the endgame phases of World of Warcraft: Wrath of the Lich King (2008), I found it necessary to become a member of a player's guild that would enable endgame raids involving approximately 25 participants. At the top co-operative level, this demanded a high degree of co-ordination, and consequently what was initially intended as a pastime activity swiftly began to mirror corporate employment. Acceptance required me to compose a motivation letter to join the guild, followed by a brief acceptance procedure culminating in my first interview (where I created my initial structured CV, detailing my previous gaming experiences). Upon acceptance, this evolved into nightly tasks of gathering herbs across the game world and weekly participation in group raids, alongside learning protocols for completing various objectives for my character in raid dungeon encounters. This experience was similar to my future employment and provided me with my first glimpse of the fiction of capitalist and corporate work ethics.

These affordances can be criticised for capitalist ideologies since they are very close to the realities of corporate jobs and may be seen as preparing players to succeed in them (Hayse 2014, 447). The intuitive answer to my opening question (*Why do we play games about labour when we get home after work or school?*) is that although the *Civilization* series teaches us the “ideology of techno-utopianism through scientific progress”, it also does something more. Following on from Squire's work on learning with games, players actually “do interrogate the implicit ideological perspectives” when playing rather than “uncritically swallowing them” (Hayse 2014, 446). Similar arguments can be found in (Sotamaa 2014) and the meta-study by (Kolek, et al. 2023). Therefore, contrary to the initial intuition that games make players believe their standpoints, and in line with our discussion of code performativity (Chun 2008), when we come home after work we are going to experience a lively discussion of ideological perspectives underpinning our daily employment, studies, and affordances in capitalism.

Rather than simply asserting a prevalent ideology, we open up a dialogue in which players can take either a critical position in these discussions or look for arguments that defend the hegemonic ideological assumptions. Therefore, the role of critical game designers is to facilitate the critical affordances of such discussions in order to allow speculations for radical alternatives, rather than creating more poster-like media. This strategy is in line with the possibility of a loving perception in (troubled) world travelling, which affords players to experience different identities lovingly and critically, as proposed by Maria Lugones critique of imperial games (Playfulness, "World"-Travelling, and Loving Perception 1987).

A side note considering this is the discussion of immaterial labour in Kunzelman's research on speculative game mechanics (Kunzelman 2022, 57 and 59). The mode of

immaterial labour³⁴ as a common perspective in games is a significant consideration, as it facilitates the examination of class, extractivism, economy, and the position of our (player avatar) labour in a potential speculative game economy, while concerning the contemporary inventions and forms of alienation of platform capitalism (Srnicek 2016). Historically, immaterial labour has been associated with the managerial and middle classes, and to a certain extent it remains the same today. One could argue that rather than subsuming everything into the platform economy, we observe two distinct class-related economic circuits: services are increasingly characterised by gamified physical gig work, while corporate structures adhere to more traditional managerial hierarchies, largely focused on the immaterial. The discourse surrounding immaterial labour may in fact be indicative of a further division and creation of new surplus populations, which is arguably an even worse outlook for the lower economic classes.

Where are all the speculative games?

More precisely, where are the games that would imagine democratic politics other than within the framework of growth-oriented economies? A fiction of humanity that will be able to reduce emissions and mitigate the impact of the climate crisis? I have discussed several positive exceptions in the digital games mainstream in *Death Stranding* and *Citizen Sleeper*, which take a critical perspective on work by using the degree of speculative mechanics in exchange, alienation, or player agency. In relation to the climate crisis, this is a question famously asked by the game scholars Abraham and Jayemanne's paper (Where are all the climate change games? - Locating digital games' response to climate change 2017). As seen in games such as *Civilization VI: Gathering Storm* or *Frostpunk* series, there is already a representation of climate crisis mitigation in digital games, but sadly their ethos revolves around technocratic growth-oriented solutions based on rigid research trees (Beke 2023), or around labour-oriented rags to riches narratives deeply sceptical of democratic decision making. For Abraham and Jayemanne, ecogames often face further problems when transforming players' perceptions, as serious games are often either too educative, unable to influence players to see the game representation of the world as meaningful, or too rigid to open a participative discussion, instead of staying with patronising narration. Hand in hand with this goes the lack of ecogames' focus on climate justice, preferring to opt for the techno solutionist ethos (Abraham and Jayemanne 2017, 87-88). These are all problems connected to labour ethics in capitalist ideologies and growth-oriented approaches to ecology. A problem that can be approached in speculative games by decentring player agency from the game narrative and procedural rules, leaving players as non-dominant actors over the game space. Playing with limited agency, is crucially needed if we are to embrace a bottom-up perspective and a loving perception in speculative game design.

The locus of control (Rotter 1966) in personality psychology can be thought of as a perspective that combines both the politics and strategies of alienation and agency from a standpoint useful for conceptualising working strategies for alternative forms of exchange and narratives. The locus of control generally refers to one's own belief and disbelief to a degree of control of events in daily life to be affected by one's own agency, external factors such as structural objective alienation, or other perceived external factors such as choice of friends, luck, or mystical and religious structures and characters. The recent preliminary study on locus on control perceived as internal (in hands of one's own agency) in digital games, rather than control being driven externally

34 Usually encountered in managerial strategy game perspective (navigating workers and units, optimising production, and reading spreadsheets).

perceived in daily life, proved to be one of the factors for problematic gaming, where *“gaming as a means of feeling increased control may be problematic in people who are experiencing stress, or high external locus of control, in their everyday lives”* (Lloyd, J., Frost, S., Kuliesius, I., & Jones, C. 2019). This further argues in favour of implementing alienating mechanics into game design and designing related possibilities of player agency in the face of objective alienation. Simply omitting them, or directly building negative authoritarian agency over the game space fosters players’ daily subjective alienation and perpetuates a perceived loss of control over daily decision-making, leaving digital games as potentially dangerous escape fantasies or fostering addictive gaming strategies.

Incorporating loving visiting, democratic agency, and fostering player speculative agency seems more important than focusing only on alienated labour allegories. Such a narrow focus might only foster perceived helplessness or even directly add to conservative narratives about labour ethics under contemporary capitalism. Finally, the affordances of such gameplay might be both critical and non-critical, but I would argue that as speculative game designers we should offer the agency of loving visiting rather than a fantasy of power: following on from Lugones (1987), the forms of arrogant perception of agonistic play, imagining games beyond the ideological stereotypes of capitalism, feudalism, and forms of authoritarian government. The game forms of troubled world utopia open up possibilities of a digital game allegories that reach far beyond the limited agonistic ethos by introducing dialogue and performatively experiencing the agency of the other.

As noted by Anable (2018), games are archives of era politics; that is, affective player involvement that is not purely economic and might open a speculative imagination of non-extractivist and non-growth economies and modes of living. The hints of non-capitalist economic modes, such as the gift economy, can be seen in games such as *Death Stranding*; however, I hope there shall be many more speculative and critical games to come.

A Case Study on *Lithium*

As an example of decentring of player agency and loss of research trees in favour of shared political agencies, I will analyse the democratic agency design principles in *Lithium* (Blue Pulsar kolektiv, et al. 2025), an anti-extractivist educational game on lithium mining projects we have designed with the Blue Pulsar kolektiv. *Lithium* aims to convey the key problems, ideas, and possibilities of democratic and activist struggles against forms of lithium extractivism connected to the current transformation of capitalism. It aims to inform its players of both the local context and possibilities of struggle, empowering local players to reject the project, while aiming to inform player audiences about the problems of the current form of economic transition: the shift to electric vehicle production and batteries that rely heavily on enormous amounts of lithium needed to be mined globally in order to sustain the current levels of production. The game is about the possibilities of local activism, a speculative mechanism for democratic politics. With *Lithium*, we are decentring player agency via the imagination of collective agency, where both procedurally and narratively the player never holds dominant power over the gamespace, but rather participates in discussions with various game systems representing real local actors.

Together with the political scientist Gabriela Štvrtňová, we are researching options that bring the ethos of conflicting agencies with multiple actors. As an educational game aiming for the widest accessibility, *Lithium* is a card game designed for both digital and board game versions focusing on bringing to light local actors' perspectives, along with concerns in the management of real development projects of lithium mining at Cínovec in Czechia and Zinnwald in Germany. As part of the research on the game's democratic agency framework, we have prepared design principles that are used in the game but can be used generally for the design and analysis of games. These principles are largely based on the degree of non-domination of players in the game world, instead of the normalised stereotype of the player as an autocratic arbiter, and on the principle of game actors' freedom, translating into the degree of their agency. I use the principles listed below as an analytical lens for the following case study. They are supported by a close reading of gameplay sessions followed by a recorded 30 minutes of gameplay focused on the following series of questions concerning the forms of agency of players and other game actors.

Designing *Lithium* within the strategy game genre, we were researching options that bring about an ethos of conflicting agencies with multiple actors. *Lithium* was commissioned by the local gallery and cultural centre Hraničář as part of the educational programme of the gallery, and is presented as part in the *Symptoms of the future* (September 2024- January 2025) exhibition about lithium extractivism in the Hraničář gallery. It aims to educate local actors about their political opportunities and share information in both the local and global contexts. First, let me describe the game from the perspective of the three-level framework.

- (1) In addition to the democratic agency framework, the game mechanics of *Lithium* keep in mind the exchange-oriented approach by reducing the number of persistent resources, reducing the possibility of value accumulation on both narrative and procedural levels, and as such rather highlighting political planning and reaction mechanics. At the same time, *Lithium* depicts the struggle in the game as a collective problem, diminishing the role of monomythic player labour; as such, the game value is generated in social

contexts rather than by only focusing on player labour exchange (even though the game contains functioning market institutions).

(2) *Lithium* aims to highlight alienation in relation to the properties of residents and nature (depicted on playable cards). While the cards themselves can represent policies, extractivist procedures or actors that affect players to a certain degree, the important estranging effect of the game lies in the interviews with the three real actors concerned with the political and local impacts of lithium extractivism. This is an important aspect of the game, as it sets the game narrative beyond mere procedural representations of the struggle and employs a documentary perspective on the problem.

(3) The game attempts to offer four agency perspectives by introducing three playable card classes (locals, activists, and the city), along with an antagonist developer class (players can play as developers only in the board version of the game). With this, *Lithium* adopts an activist ethos but allows players to consider several options, from mitigating the impacts of mining to banning it indefinitely. The game's decision-making framework seeks to represent democratic agencies from diverse perspectives. Simultaneously, the *deliberation* game mechanism enables players to softly accumulate resources for *deliberation facilitation*, foster democratic innovation, and facilitate long-term planning within the strategic component. This approach allows players to influence the game with a degree of meaningful agency and formulate strategies, thus granting them the ability to moderate rather than dominate the game's procedural systems.

If I consider the game in detail with the above-mentioned democratic agency design principles, *Lithium* fosters political education and democratic thinking by giving players the option of discovering the motivation and strategies of real-life actors by talking to real actors in dialogues based on expert and local actors' interviews taken during the game's development. These interviews commented on the real local situation and the global context of lithium extractivism: the impact of development and mining and on the possible forms of democratic organisation.

In *Lithium*, the gameplay loop consists of blocking the developer piece from finishing two thirds of the mining related projects on the game map. Such projects range from actual mining project shafts on Cínovec and Zinnwald, its infrastructure, to more abstract projects, such as gaining political influence in local representation. The game map represents the local geography in an abstract manner, where majority of map hex fields provide references to local points of interest, cities, or locations connected with the actual lithium mining project proposal.

There are currently several game scenarios centred around Cínovec: The first 2024 scenario focuses on the nearby locations at Cínovec and serves as an introduction to both game rules and local problems connected to lithium mining. Importantly, the mining is introduced through player interview with Kamila Vítek Derynková, a local activist, who offers her perspective on developer actions, issues related to mining tests, or the prospect of mining-related pollution and environmental impacts. The second 2025 Cínovec scenario expands the game map, including two larger cities in the vicinity of Ústí nad Labem and Teplice, and introduces a simplified depiction of possible mining impacts with an increase of pollution and construction of the necessary infrastructure. This is complemented by an interview with Nina Djukanovic, an environmental geographer focusing on lithium extractivism and environmental impacts on local communities. The interview expanded the local perspective on lithium mining into the global context of extractivism and capitalist production. The third scenario

offers a perspective on a similar situation on the German side of the border, with a similarly problematic mining project with further challenges. This scenario was introduced through an interview with the local environmentalist Jitka Pollakis.

Lithium is a turn-based strategy card game in which players interact with the game world by playing or stashing cards while moving their pawns on the game map. The goal of the game is to block the developer pawn from completing 2/3 of the projects on the game map, not to lose public support and affirmation of the struggle during the process, and ideally pursue a political project of producing a deliberative assembly that would allow for a longer-term rejection of lithium mining in the area on a political level. As such, meaningful player actions are limited on the procedural level to interacting with the map via the pawn and playing cards that interact with the developer pawn, project progress, and the map. On the narrative level, the procedural player agency is complemented by interviews with local and expert actors that are to be explored by players, along with the game encyclopaedia that allows players to explore further concepts related to degrowth and the ecological impact of mining via paratexts.

The interdependence of the two agential actors (players and developer) is complemented by the reactions decks, which can be seen as third non-actors, representing the reactions of *capital*, *state*, and *environment* (in our case, environment stands for both nature and non-activist locals but also for state regulations). A player's scope of agency is limited by the reaction system, where playing cards often add a card from one of the reactions decks to the player's own deck. If players draw a reaction card in their turn, they must always play it or somehow try to remove it from the deck by using the disagreement and sabotage cards. As such, reaction cards represent actors that are not directly present in the game but still have a say in the discussion about mining projects: the scope of players' actions is reduced by reactions as they lose part of their planning agency to the contingency produced by caring about the reaction on both narrative and procedural levels.

With this, the impact of player action is palpable after playing each card or interacting with the game world. Players are encouraged to employ contingent strategies to stop the projects, where the single cards function as a reference to possible local motivation blocking, arguing against or even sabotaging the project (a) activist stalling of the project and gaining support and affirmation (b), or civic policies and fundraising actions (c). These can be taken and further represented by three social groups: locals (a), activists (b), and the city (c) which represent the affinities for those action types. The impact of actions is first palpable in moving the developer pawn around the map, creating blockades around the map, and supporting a series of nine deliberation projects which allow players to achieve the main win condition. There is no dominant actor on the map; both players and developers fight over the projects, and both need to react to each other's actions, even though players and developers have different rules of action (developer actions are preprogrammed by the cards drawn from each developer deck).

On the narrative level, the ethos of *Lithium* supports the procedural rhetoric of game actions through interviews and encyclopaedia paratexts. In a sense, these are the most important aspects of the game to explore because they convey accurate information about the local reality of the project, the global context of lithium extractivism, and possible citizen actions. These possibilities to act meaningfully are translated into the procedural affordances of each card design and into the actions afforded to the game developer pawn. This is while also keeping in mind the possible subversive player gameplay, which is still supported and even endorsed in the board version of the *Lithium* game.

The game actors are not equal in the game, but at the same time no single dominant actor is present. The developer represents the ruling or managerial class, the player's pawn represents a collective of locals, and each social group also loosely represents their social class. Therefore, the representation of each actor on the narrative level is not a representation of a singular person but rather representation of a collective. In this sense, each card represents a voice in society, and players decide which voice should be acted upon at each turn and which needs to be stashed for the future, or which voice should be removed from the collective.

As already mentioned, neither of the two agential actors is dominant, but the agency of the developer leads meaningful player action, as the procedural struggle against the project (as in the case of the narrative background of the game – the struggle against the mining) is driven by the player reactions to developer agency – players react to developers' actions. In this sense, deliberation projects play an important role in giving players a means of proactive action, rather than only reacting to the developer's movement on the map. On the narrative level, deliberation also shifts players' attention towards democratic political action and democratic innovation. The role of deliberation is crucial in the game design as it allows for planning beyond the action, crisis, and reaction cycle. Finally, the true victory in *Lithium* is finishing deliberation projects and banning mining indefinitely.

A Case study on *Frostpunk: The Last Autumn* and *Frostpunk 2*

Frostpunk depicts the onset of and adaptation to climate catastrophe, a global cooling event that destroys human civilisation. The role of nature as an antagonist is also a recurring theme in *Frostpunk* (11 Bit Studios 2018), the original city builder survival game and its DLCs, where players manage groups of survivors nurturing coal-powered heat generators in cold Arctic settings. In *Frostpunk 2* (11 Bit Studios 2024), the original game sequel, players manage, and plan whole cities to build a new society that would endure the cold climate crisis. Here, I selected *Frostpunk: The Last Autumn* (11 bit studios 2020) and *Frostpunk 2* as the latest larger iterations of the series. *The Last Autumn* story is set before the original game plot, where the player controls the construction of a generator that will later house climate refugees. The approaching climate cooling destroyed the British Empire³⁵ and offered no other possibility than to travel to partly sheltered areas up the north, where a large coal-burning generator was built to heat the surrounding city built around it. In this sense, we can conceive *The Last Autumn* as an ecogame because it first builds its ethos around climate change,³⁶ although it is inversed in game narrative as it depicts global cooling (as allegory of real climate warming crisis). Second, because it allows players to procedurally experience the social and economic impacts of a changing climate.

In contrast to *Civilization VI: Gathering Storm* perspective scale of the whole earth, the player in *The Last Autumn* takes the role of a city captain from a managerial perspective on a scale that allows overwatching workers and engineers from just above the ground from a perspective that makes their personal opinions, desires, and needs relevant without negatively affecting managerial game mechanics too much. Players oversee the growing city, planning its architectural layout and construction, selecting social policies, planning production and research, while micromanaging workers and engineers, and responding to their current needs and desires. In *Frostpunk: The Last Autumn*, the player population is split into two main social classes: workers needed for manual labour and engineers capable of expert labour such as research, health, and complicated production. Optionally, players can decide to employ prisoners who offer the same labour as workers but need constant supervision by engineers. The player takes on the role of the managerial class, both as the expert planner and arbiter of various social and individual tensions, a role which can have authoritarian power over the city population.

In *Frostpunk: The Last Autumn*, game mechanics revolve around planning a layout of the city, then caring for generator construction (after the finished player can finally win) and meeting its ever-tighter deadlines which pressure players to increase production and control over workers and engineers. The game map is gradually becoming frostier and chillier, signalling an upcoming climate cooling. These factors put pressure on players' agencies (plans, strategies, building, and worker management), as in harsher conditions, workers and engineers demand rise in production and heating,

³⁵ With this can also see its political positioning, ignoring the narrative of non-European people and societies altogether (with limited references given to the US).

³⁶ *Frostpunk* series are often considered as ecogames, for detailed studies on the topic see *Ecogames* (Beke, Laura op de, Joost Raessens, Stefan Werning, and Gerald Farca, eds. 2024).

along with the danger of scarcity of food and other resources, which directly threatens the lives of workers.

Player actions are meaningful, as long as they focus on either construction goals or raising people's motivation and living standards. A player agency can be summarised as planning a strategy and responding to contingencies. The impact of player action is palpable not only in the pleasure of overseeing the outcome of premediated plans and buildings but also in rising contingencies that work against her strategy. If she fails to respond procedurally to these challenges, fails to accumulate sufficient resources each time, or lags behind the construction schedule, she can be ousted either by her workers and engineers or by the crown that holds power over her dominant agency at the narrative level (it is a narrative entity that provides tasks and deadlines to players).

Therefore, the agency in *Frostpunk: The Last Autumn* at the narrative level is in unison with its procedural agency, as both convey dark survivalist (or pessimistic) economies and an authoritarian political outlook on game mechanics. These are reminiscent of recurring trolley problems, where the actions of engineers and workers are often antagonistic to player actions and strategies, forcing players to adjust plans and make concessions according to their demands. Actors in the game are not equal in any sense. *Frostpunk: The Last Autumn* represents a strictly hierarchical power structure of an authoritarian and industrial capitalist society. At the same time, players can find an inherent critique of this society in the game at both the procedural and narrative levels, where the growth imperative is pushing players to choose either totalitarian or theocratic politics in the game *Book of Laws* policy research tree. In this sense, *Frostpunk*'s gameplay is a repeating trolley problem and procedural ethos creates a pessimistic allegory of society spinning into authoritarianism in the face of a climate crisis over the course of the game.

Interestingly, the degree of agency of game actors is higher than in *Civilisation*, but in the end, all actors are dominated by hierarchical relations and by the growth imperative which, if left unattended, will result in losing the scenario due to not being able to keep up with the increasing demands on the settlement economy. *Frostpunk: The Last Autumn* successfully portrays the interdependency of all game actors and consequences of their conflicting agencies. An imbalance of power is still present as the player dominates the agency of both workers and engineers. Player decisions on how to solve issues are always arbitrary with regard to the agency of other actors, leaving players in dominant positions. A limited democratic agency is present in *Frostpunk: The Last Autumn*, but it places the other actors in conflicting positions, leaving the denizens of the city and democratic process mostly as a negative factor—as an antagonist to player agency with very limited possibilities for any notion of a positive democratic future in gamespace.

If we consider *Frostpunk: The Last Autumn* with the heuristic framework, we might see that (1) *game exchange* uses both utopian and negative modes. The growth imperative guides player actions as the output of the settlement increases over time, but resources are also lost in the process. For example, advanced manufacturing buildings have deteriorating safety measures that can threaten the lives of workers if left unattended. Similarly, the resources on the game map never last infinitely, and the players' strategy is to scavenge resources in increasingly dire conditions of scarcity. In this sense, *Frostpunk: The Last Autumn* is predominantly using modes of negative exchange. That said, there are little to no forms of exchange beyond negative and utopian forms; players can encounter other denizens of the area in settlement environment exploration events, but they rarely present other agencies than hoarding and fighting over resources or asking players for help. There is no

relevant gift or other speculative economy in the game. That is, beyond the periodical shipment of resources from Britain (if players build harbours, they can request shipments of needed resources which are steady in the first half of the story and begin to dwindle in the later stages), that is, on a procedural level rather than a form of utopian economic resource. Players can progress through the game story by fulfilling the timetable of the demands for building the generator. Players can easily lose if they lag behind the schedule as climate change progresses independently of player actions. If players fail, they will become overwhelmed by the cold or will be deposed from the captain position by revolting workers and engineers or by the empire representatives. With this, the authority of the empire is also presented at the narrative level and works as a background for procedural mechanics.

(2) *Alienation*: Both the crises and worker management in *Frostpunk: The Last Autumn* reveals and highlights the exploitation of labour, alienation of workers, and problems with resource extraction. The exploitation of labour is a recurring theme throughout the course of the game; players have to exploit and push workers' productivity to complete generator projects on time, and the optimal game strategy requires striking a balance between exploitation (pushing for dangerous labour and increasing working hours or diminishing worker rights) and systems of care (providing health, safety, food, religion, leisure, and the ability to open workers' council/parliament). In this sense, the game provides a lively representation of the historical exploitation of workers in the second half of the 19th century and its rising industrialisation.³⁷ The game mechanics that form the inner market economy of the game also successfully portray the managerial alienation of player character, where the Captain is pushed towards increasingly exploitative gameplay because of the demands that can be read as allegories of the capitalist improvement paradigm – players are dominated by their superiors and can decide to dominate their population in the same manner. In this sense *Frostpunk: The Last Autumn* can be read as a critique of early industrial capitalism, with largely pessimists outlook towards possible democratic leadership (if player allows the workers to form a council – a parliament like institution – they start to demand mostly irrational or “selfish” demands that hinder the possibility of generator construction success and back these demands by frequent strikes – player has the ability to solve this situation either by answering to the demands or by spinning to authoritarianism by declaring “*Official Doctrine*”, that bans workers council “*ideas [to] have negative consequences.*” At the end of the scenario, the game lists the players' negative and positive decisions in a sentimental appeal to player ethics; if players make exploitative decisions during the game, now the game will make them feel bad about it. In this sense, the game estranges players synthetically, with alienation at both the objective and subjective levels.

(3) *Performative agency*: *Frostpunk: The Last Autumn* offers three agency perspectives: the player captain/settlement manager perspective in dialogue with worker agencies. Player agency is dominant over others, but the alienated material conditions and subjective experiences of workers and engineers experienced through managerial mechanics form the affective ethos that the game uses to narrate its story. Players must perform capitalist like growth, improvement, and expansion imperatives to survive or to win the game and to achieve the most desirable outcome: A finished generator supporting the highest number of people in future, least number of workers and engineers

37 *Frostpunk: The Last Autumn* is set in fictional 1886.

deaths, and hopefully least controversial policies. In this way, we can read the game ideology, that is, depicting two extremes of theocratic fascism and the opposite authoritarian form of Stalinist-like government if players opted for socialist policies but later decided to limit the workers council with the *Official Doctrine* policy. The positive possibilities of democratic decision-making are shown in the game with the workers council but are, as already mentioned above, limited to oppose player agencies. Players can opt for democratic and even socialist gameplay, but they will eventually run into extreme policies in the tech tree, and can maintain the status quo only by not proceeding further in adopting policies. Therefore, the political standpoint of the game is pessimistic and opts for a status quo.

In *Frostpunk 2*, the player takes the role of city planner and manager; yet again, in the events after the expansion and the original game story, a higher focus on conflicting faction politics is introduced. The original game focused on two conflicting classes: engineers representing the middle class, and workers representing the lower class. The second game introduces political parties originating from social classes and their radical subfactions, based on more extreme ideological beliefs. These political parties conflict with the player vision of the future city but also introduce more nuanced political dialogue than the one seen in the *Last Autumn*. This is certainly a step forward, as gameplay introduces the agency of other actors. Democratic agency is still limited, as agency shared between the parties is limited to barter-like politics, where no faction can take over the city without triggering conflict. Similar to the original game, in economic terms, if the city remains left alone, it quickly falls into economic and political disorder which makes the city residents again dominated by players, as they cannot come up with their own meaningful planning.

A striking change over *Frostpunk* is a change in the scope of the player's perspective. Changing from the managerial scope of settlement, where single workers can be seen working and commuting, the city planner perspective changes the player's relationship to the city and its residents and significantly speeds up the represented game time. Where in *Frostpunk: The Last Autumn* players were watching over tents and shacks from the morning to the evening, in *Frostpunk 2* players overview numerous high-rise buildings and neighbourhoods in the cycles of weeks and months, rather than granular days. With the loss of a close perspective on denizens, some flattening of emotional agency occurs, where the characters and factions are stereotyped into prevalently survivalist or ideological poster-like demands and affects.

The agencies of game actors are limited as players still dominate the city and its residents. Nevertheless, the political parties' discussion and navigation of their conflicting agencies in the council introduces a larger level of equality and interdependence principle in *Frostpunk 2*. Where players need to fight for political power if they want to win the game, and if they fail, they are deposed from leadership. The city council in *Frostpunk 2* plays a significant role in game mechanics, serving as one of the central game screens in the user interface along with the city and map views. Decision-making on the policy and research tree is no longer arbitrary and is fully dominated by player decisions; instead, the player needs to gain enough votes to pass selected policies on the council. At the same time, parties present in the council can take the agency of deciding what new policy will be voted on in exchange for appeasing it or trading it for political favours in the future.

From a zoomed-out perspective, a much larger focus in game mechanics is given to spreadsheet-like interfaces, where players manage the transfer of resources between the central city and adjacent settlements, or the resources that various industries receive and output. In the first game, the deaths and suffering of workers had a personal frame;

in the second game, the frame shifted to favour statistics referring to the deaths and injuries of dozens and hundreds of workers simultaneously. The shift in the player's perspective also marks a shift in the economy of the game regarding negative and utopian forms of exchange. Where *Frostpunk: The Last Autumn* was largely using negative exchange, and the dominant forms shifted in favour of utopian exchange in *Frostpunk 2*. It also shifts the prevalent ideologies. *Frostpunk 2* maintains its status quo perspective but loses part of its critical edge in the display of worker alienation.

(1) *Exchange*: In contrast to the original game, the longer time span of *Frostpunk 2* introduces deposits (food, materials, and fuel) that are either much more lasting or that even have the potential to yield infinite resources if proper technology is researched and implemented. This change introduces forms of utopian exchange, which is referenced also in the game story with a possibility of building a social utopia in the Arctic in one of the game's good endings. This is at both the narrative and procedural levels, introducing a very different ethos from original *Frostpunk*, that is a good example of game revolving around troubled utopia. This utopia is similar to *Civilization VI* economy, as it retains some of the growth-oriented improvement narratives, where every crisis can be solved by good management, and if not, by more research of either social or industrial technologies. The extraction of resources from the frozen land is the default form of value production, but there are also events that prompt players to give resources away to help various communities scattered across the game map. Player labour is managerial, but game mechanics are expanded to steering both the production efforts and the city politics, which are much more complex with the new parties present in the city. These procedural mechanics also build the narration of game story chapters, each of which requires mastering and focusing on exploration, industrial production, or managing political crises.

(2) *Alienation*: The populations governed by players are mostly situated as suffering from either the cold, as deprived materially, or as being locked in tense political struggles. These situations are often caused directly by the player policies enacted earlier in order improve production, or to complete various projects on time. Again, what makes the represented alienation of characters different is the zoomed-out perspective that does not show the experience of single workers but rather narrates alienation in the population frame. The second significant difference is that group aspirations are voiced through the political party system, which enables troubled visiting of different agencies at much more detailed levels. Player agency is still dominant, but the representation of policies enables the imagination of the political utopia that might take place after the events in the game story.

(3) *Performative agency*: If players complete *Frostpunk 2* story with the positive ending (there are several possibilities of how the story evolves), there is a huge title displayed on the screen –*the city did not fall* – what follows is again the list of events and players' reactions to them. With the introduction of party politics in the city council, this list is much less sentimental toward trolley-like problematic decisions, as if the player decides to strive for social cohesion and democratic governance rather than for the forms of authoritarian government, the sentiment seems to shift in favour of partisan dialogue. There is a possibility of a democratic utopia, and players are prompted to discover the agencies of various actors. The discussion of loving visiting is still limited because of the remaining pessimistic setting towards democratic governance, but the new mechanics and the game story allow for speculation on troubled utopia, which is a great update on the pessimistic narrative from *Frostpunk: The Last Autumn*.

The Frostpunk 2 economy is still limited to extraction mechanics; players still have a dominant agency in that they effectively choose where the story will go, but there is a dialogue between multiple game actors that significantly changes the game allegories for a positive outlook. Today, when support for democratic politics is declining, it needs to be stressed, that looking for possible allegories of democratic agency is of great importance in the tech-world/game imagination.

A Case Study on *Elden Ring*

In *Elden Ring* (FromSoftware, Inc. 2022), players traverse the fictional open world of *Lands Between* to overcome various game enemies, bosses, and landscapes to complete the game's storyline and potentially become the next *Elden lords* – rulers of the fictional game world. To do so, players must explore the world and gather runes, which serve as the main game currency and can be traded for various equipment and improvements and exchanged for character status points after levelling up. The unique mechanics of the Souls-like genre, such as losing accumulated currency on dying and demanding combat systems based on player reflexes, constitute the core game mechanics. However, *Elden Ring* not only offers the option to deliberately avoid character levelling but also offers the possibility to stop caring about rune accumulation and rely on the player's knowledge of game mechanics and skills to beat the game.

As discussed in the first chapter, the strategy game algorithm converts all game actions and events into calculable values and thereby drives us towards a perception of the surrounding world based on calculating the value of strategic resources - the probability with which we win in varying situations. It is an illusion of strategy by which we can predict, seemingly efficiently, the probability with which we can fulfil our desires within the boundaries defined by production relations and exchange. The rules of mainstream games often reflect the themes of primitive accumulation and repetitive labour but are unable to depict a workable alternative. In this case study, *Elden Ring* introduces a new affective level in the approach to player character avatar: commodification of self, rather than narrative and procedural alienation by the external necessities introduced by the game economy. The ability to skip currency accumulation is crucial to the *Elden Ring* economy. Within the game space, players do not have to pursue accumulation, at least if we consider rune accumulation. They can choose to ignore gathering runes and get better only by training their reactions, game controls, in-game combat, and movement skills, such as precise dodging enemy attacks. Players can use the accumulated skills and purposefully never level up or use extra equipment, spells, and skills and can be completed only by improving player labour and skills, ignoring currency altogether.

Concerning Marx's analysis of exploitation of labour as source of alienation in capitalism, there is an imagination of technological reservoirs (of "dead labour" of machines and earth resources) that serve, at the level of ideology for fetish of imagination of self as optimally functioning commodities. As described in the above chapters playing games in contemporary capitalism, that is increasingly more dependent on digital technologies, serves as a form of bodily learning, that is based on imagination of body as being able to function along with computers, this is connected to code fetishism (Chun, On "Sourcery," or Code as Fetish 2008) as well as embodied literacy learned through Henri Lefebvre's term of *dressage* (Lefebvre 2004) (Keogh, A Play of Bodies 2018). As a side note, it is also useful to remember Martin Heidegger, in *The Question Concerning Technology* (2013), describes in detail the framing of modern technology as a movement to reduce reality to a *usable state*. The reduction I describe in digital technologies is not just a question of games, but is part of the politics of modern technology as such: „*In Enframing, that unconcealment comes to pass in conformity with which the work of modern technology reveals the real as standing-reserve.*“ (Heidegger 2013, 21) The main themes of the game are exploring the world and optimizing your own abilities to quickly fight and compete against computer-controlled opponents (and live players in multiplayer). This optimisation is a necessary precursor to the accumulation logic found in *Elden Ring*, as its economy is built on

combat largely using negative forms of exchange, and its long-term gameplay of world exploration and progressing through the story is built on utopian exchange, which combines game value accumulation and accumulation of embodied literacy.

In this sense, the game world is not a free entity or actor with its own agency but rather a resource for the accumulation of values in various forms of extraction and exchange. With the analysis of *Elden Ring* in Marxist terms, it is a case tied to the ideology of the game space, and more so to the commodification of allegorical nature and to the increasing commodity fetishism of in-game objects. That is, following McKenzie Wark (Gamer Theory 2007), inherently connected to the logic of game space as allegory of cybernetic space, and with it is also allegory of player avatar as body that can be indefinitely improved and optimised.³⁸ One of the dominant ideologies of neoliberalism is the belief in the possibility of realizing individual desires on the basis of one's own efforts, the belief in the free hand of the market and its self-sustaining abilities – an ideology based on the work of economists Friedrich Hayek, Milton Friedman and James Buchanan. (Vallier 2021) In neoliberalism, the dream of one's freedom to realise one's own choice should not be restricted by the state policies, but depends on the ability to stand on one's own as a free and rational economic actor. For Jodi Dean, this is an illusion, as we are always part of society and are restricted by power relations at multiple levels. In her book (Democracy and Other Neoliberal Fantasies: Communicative Capitalism and Left Politics 2009), Dean criticises the increasingly illusory notion of freedom in neoliberalism – a contradiction hidden in the belief in the emancipatory power of the free market. (Dean 2009, 51) This can be seen in *Elden Ring*'s inner game markets tied to economies where the accumulation of value and embodied literacy will enable players to solve any challenges that the game throws at them. In this sense, the game works through modes of utopian exchange.

The possibility of dying and losing runes, if the player avatar dies second time after being unable to pick up the runes previously left by the first death, causes accumulated runes in *Elden Ring* to disappear from the game simulation altogether and constitutes the core anxiety mechanics of the game's world exploration – its negative exchange. This relationship is a primary constructor of the player experience in *Elden Ring* gameplay, where the tension between accumulation and crisis plays a defining role in its exchange and with it in meaningful agency afforded to players. Following Brendan Keogh analysis of earlier *souls* game mechanics: "*The character dies and is resurrected, but the player persists, taking the previous attempts and inauthentic strands with them into the next life. More than the ideal imagining of how a videogame might be progressed continuously, death, failure, and repetition are core to the temporal pleasures (and frustrations) of videogame texts.*" (Keogh, A Play of Bodies 2018, 152) The failing and trying cycle in *Elden Ring* constitutes learning through repetition and learning the habitual knowledge of the game system and reflexive combat. We can account this as a "*hacker mythos of self-improvement and machinelike efficiency*" (A Play of Bodies 2018, 147).

Players experience a linear accumulation of knowledge and game value, and at the same time, they experience failure and loss in the repeated dying and resurrection of the player game character – a combination of negative and utopian exchange. The negative exchange and failure in relation to the long duration of the utopian accumulation of

38 The avatar level cap in *Elden Ring* is 731, which might sound absurd in comparison to other RPG titles, but in my playthrough I have reached well beyond level 200 in time of writing this thesis as I was finishing Shadow of the Erdtree DLC (FromSoftware, Inc. 2024). I believe the seemingly indefinite avatar skill progression one of the defining features of the game ethos.

game knowledge defines the rags-to-riches ideology of *the Elden Ring* progression. The economy and work in *Elden Ring* are focused on its inner market and modes of accumulation and exchange. As such, its work ideology and pleasures are directed towards its inner circuit – we play *Elden Ring* to get better at it, and so to extract and explore its hidden content. Following *Elden Ring*'s exchange ethos, let me also explore its agential affordances within the heuristic framework:

(1) *Exchange*: What is unique in *Elden Ring* is the combination of negative and utopian exchange modes, where the first is experienced directly in game combat mechanics. The utopian exchange plays out in a longer period of game progression and world exploration, and with cycles of rune, character level, and skill accumulation over time. The negative exchange takes place in the combat with monsters, mainly in the risk of losing previously accumulated runes on death. At the procedural level, there are few options to escape these forms of exchange, but in contrast, game quests often focus on helping various characters that players meet during exploration. Most often, these are centred around fighting other non-playable characters to progress through their story. In a sense, these quests introduce imagination of gift economy on a narrative level which is further highlighted by the game world's high hostility: meeting a friendly character and being able to help it has large significance in the otherwise hostile world. Nevertheless, the player labour cycles of rune and skill accumulation follow the rags to enrich logics. The ability to skip the labour and voluntarily play the game without the accumulation and levelling might offer either possibility of subversive game practice or, on the contrary, follow neoliberal self-improvement paradigm. *Elden Ring* contrasts these utopian and negative exchange affordances procedurally and narratively.

(2) *Alienation*: In *Elden Ring*, the player is a traveller exploring the world to progress through the story; there is no meaningful interaction with the world beyond exploration, the player's avatar improvement, or combat. Defeating most of the enemies will leave the game world the same as each monster (except the bosses) resurrect after resting at a site of grace.³⁹ With this the player character is uprooted and alienated to the gamespace. Game world can never be truly inhabited by the player character. It is both procedurally and narratively resting in stasis that is only visited by player character. In this case, game exploration gives the player a conqueror's perspective. With the fantasy genre setting, there is no reference to historical alienation (beyond the fact that the most likely interaction with the world is combat), the alienation referenced here is the allegory of gamespace and its rags to riches narrative that promise player avatar improvement. Nevertheless, the inhabitants of the world players meet are in a deep state of melancholia. *Elden Ring* therefore works with subjective alienation, even though it obscures the objective alienation with its exchange neoliberal allegory.

(3) *Performative agency*: *Elden Ring* gives players a huge amount of agency in choosing how to approach combat and exploration. As already mentioned, the most interesting agential affordance here is the option to play only as an explorer, trying to bypass and dodge most of the game combat and accumulation. If players choose to performativity as such, they also bypass part of the character improvement cycle. This option introduces a specific agency-based game ethos of player skill and with it a challenge to subvert the game

³⁹ These are campfires scattered across the world also serving as checkpoints for the exploration and story progression.

rules. It is largely dependent on gaining embodied literacy, but it also allows players not to perform capitalist modes of accumulation. I imagine that, with a critical ambition, such an approach might aim for play that subverts the game combat cycles and imagines non-alienated forms of work and exploration. Contrasting the utopian and negative forms of exchange might work as critical design strategy.

The player agency in *Elden Ring* offers a specific perspective on player labour and accumulation mechanics. Remembering other RPG titles, namely *Citizen Sleeper* and *Death Stranding*, such kind of game exchange performativity and agency might allow loving visiting and troubled utopias speculation if players decide to play with a critical and subversive agenda, or if they just decide not to follow the game accumulation prompts. Illustrating this it's worth to remember the *Elden Ring* endings, without spoiling too much, players can either decide to become Elden lords – the new feudal sovereigns of the undead game world – or also choose to break the cycle, and leave the world to travel further into the space endlessly.

The goal of this case study was to see if the heuristic framework is relevant for the analysis of exchange, alienation, and performativity in RPGs. Similar readings of role-playing games are focusing on the critique of accumulation of *avatar capitals* (van Ryn, Apperley and Clemens 2019), that are standing for various affective and aesthetic modes of character creation, avatar and player character economies. Ideologies of temporal economies and rhythms of game exchange are another useful perspective that we are currently researching with game researcher and artist Ondrej Trhoň elsewhere (Trhoň and Hauer forthcoming). Roleplaying games have specific affordances, but the framework hopefully offers a useful perspective on *Elden Ring's* affordances, mainly concerning the possibilities of non-standard performativity or the possibility of subversive play.

Notes on artistic research with *Dreaming About Work*, *Workers Out of Office* – *London DLC*, and *Lithium*

The framework and analysis discussed in the chapters of this thesis had a specific origin in practical, or precisely artistic, research that accompanied my writing and thinking throughout the discussed questions. As a game artist and designer studying at The Academy of Fine Arts in Prague, I had the opportunity to accompany theoretical research with practical work on game-art projects that helped me to test and devise the premises and framework presented in my thesis. These are two larger series of game-art installation that investigate the speculative and educational possibilities of the game medium. I have presented them during my doctoral studies as art-space/gallery exhibition installations, web-based gamebook, and digital games that finally aim to be freely accessible on the internet to be played at home, up to the point that digital affordances allow them to be experienced fully.

This dissertation project began with filming videos for, designing, and coding *Dreaming About Work* (2020–2022). This is a series of digital games and gallery installations that aimed to investigate the subjective alienation in the imagination of futures, in which the development of AI further alienates workers in societies and results in mass layoffs. The question of why playing games often resembles real-life work, but its imagination is still far from the objective alienation experienced by workers under today's capitalism, was the first intuitive research question of this dissertation. For this, the lenses of algorithms provided a starting critical perspective on the question of exchange and ideological distortion of the representation of work within the discussed games. The artistic research can run by intuition afforded by continuous work on art projects, this enabled me to formulate theoretical premises, discussed in the first chapter of this thesis, through an analysis of exchange in strategy games, but also through work on my own game projects. Real-time strategy is a genre with specific imagination made possible by a top-down perspective. Here, I took it as a basis for critical speculation on platform capitalism that dominates the futures, which formed the background for *Dreaming About Work 09: For Loop Contingency* (2021), the game that I was working on in the first year of my dissertation project.

Dreaming About Work 09: For Loop Contingency

Game places the viewer/player in the role of the office manager; she has the duty to control the work of other employees, but also to manage her own time efficiently: to maintain worker performance while keeping up with the production norm. In the long run tensions increase, as the employees are slowly being replaced by AI automatons. Player decides whether to maintain the work loop, whether to send an unproductive employee home, when to have a break, or when to replace human workers with fully automated machines. The game loop works with explicit boredom, anxiety, and alienation from the workspace.



Figure 1 - Installation of Dreaming About Work 0.9: For Loop Contingency at TIC Brno in (July – October 2021).

After finishing the first game, my research question begun focusing on the ideologies behind the labour allegories in games. At the time, my perspective was based on the concept of subjective alienation, first with the synthetic perspective offered by the authors of *Xenofeminism: A Politics for Alienation* (Laboria Cuboniks 2018) and later also on critique of political economy and objective alienation provided by reading of Karl Marx (*Capital: Critique of Political Economy, Volume One* 1990), Ellen Meiksins Wood (*Origin of Capitalism: A Longer View* 2002), and Sylvia Federici (*Caliban and the Witch: Women, the Body and Primitive Accumulation* (2004) 2021), all critics of capitalism from historic perspective on struggle for freedom and emergence of capitalist economies.

During my research internship at CoFUTURES at the University of Oslo, a research group focused on global futures and possibilities of science and speculative fiction in artistic work, allowed me to direct my attention on allegories of primitive accumulation and colonialism. I started to conceptualise a short tabletop sequel to the digital game *For how many are your futures? Dreaming About Work: The Board Game* (2022). The board game/tabletop game design led me to concentrate on collective imagination in the affordances of shared agency in cooperative play on the board. A game mechanic, which was otherwise hard to imagine while working with digital game installations, that despite allowing shared discussions about the game, were restricted to only one player at a time. This perspective then directed me towards questioning the possibilities of players' agency as such and to attempt to bring the discussion of speculation about future technologies, as well as who among the players can choose them, into game mechanics. In *For how many are your futures?* players try to pick ideal futures from a list of available ideas.

For how many are your futures? Dreaming About Work: The Board Game

In this speculative research game, you are playing for the futures of work and workers. Each turn you will choose agendas that will

alter your stats and determine your final future. Your goal is to finish with a future that suits you the best. The game is intended to be shared and played freely.



Figure 2 – Second turn game sheet of For how many are your futures?

The role of game economies in building player agencies is a recurring theme in above chapters, it is rooted in thinking about speculative mechanics, which started in *Dreaming About Work* series: specifically, in thinking about how to thematize the forms of oppression, platform hegemonies, and exploitation of populations in capitalism with game installations. By that I mean, modes of thinking, such as speculative imagination of futures after capitalism, that work not only through speculation on political power but are predicated by the affordances of exchange in imagined economies. The option for shared play in board games, which is just much more intuitive than creating digital multiplayer games, allowed me to think beyond the critique of the singular hero experience of alienation and think with a sense of collective agency.

In this sense, alienation is no longer connected only to the material ownership of new technologies, but also to the subjective level of experiencing powerlessness, gender stereotypes, cultural hegemony, colonialism, and enclosure – in other words, to the experience of struggles for freedom in capitalism. These are questions of shared, collective agency, encompassing not only democratic thinking but also feminist and decolonial perspectives, discussed above with the theory of play of Maria Lugones (1987). A perspective on play, where the paradigm of loving perception and troubled playful visiting (or loving visiting) can work as an alternative to the agonistic paradigm of play (Huizinga 1949), that is interconnected with capitalist imaginations and ideologies. Such play, together with alienated exchange allegories and with meaningful options for shared agency, can result in the imagination of potentially successful political struggle in the present troubled with the platform capitalism and authoritarianism.

The troubled utopia and the troubled loving visiting of characters and futures in the established the collective imagination in the two *Workers Out of Office* games. The original digital game and installation *Workers Out of Office: Dreaming About Work* (2023) examined game speculation with critical take on research trees and technological imagination as a possibility of struggle against oppressive and

authoritarian futures. Essentially, the game research mechanic was accompanied by the possibility of meeting other inhabitants of the game world and allowing players to casually chat with them. These interviews were not made in seclusion, but were instead based on a series of lively dialogues which we led with friends, theorists, and artists Anna Remešová, Michal Žák, Václav Janoščík, Ondřej Trhoň and Gabriela Štvrtněová. With this, the final game allows not only to explore technology descriptions, but also to discover different experiences of the imagined future. These interviews were framed in the speculation centred around falling apart social state governed by automation, technocrats, and platforms. As such *Workers Out of Office* used collective narration based on the tabletop role-playing game style of world building, which allowed for the imagination of troubled futures lived by citizens in defunct states.

Workers Out of Office

Workers Out of Office places players on the outskirts of a simulated city in a near-future setting, where they assume control of a group of former corporate employees displaced by automation. In this situation, they contemplate their individual futures, search for new models of emancipation, and achieve meaningful survival in a post-work society, navigating poor material conditions and a deteriorating climate while striving to preserve their collective well-being. They must find new positions in the society, political stances, and agencies. The game's objective is to allow the player to speculate about a future that encompasses both emancipation and, in a bad scenario, the potential dystopia of planetary extinction. To speculate, means employing a critical awareness of one's own (perhaps limited but existing) possibilities for engaging in political struggles beyond the game. *Workers Out of Office* draws on game mechanics from RPG adventure games and TTRPGs to construct a collective world shaped by interviews with the participants. Its world simulates a new, collective rethinking of alternatives to capitalist exchange in the face of emerging automation and climate crisis. Players and workers can assume the roles of researchers, delve into the realm of future politics, or succumb to the illusion of being re-employed in an automated society. Alternatively, they find themselves grappling with the challenge of survival in the fictional breakdown of the welfare state. The game strives to create an intimate interface that allows speculation about positive futures.

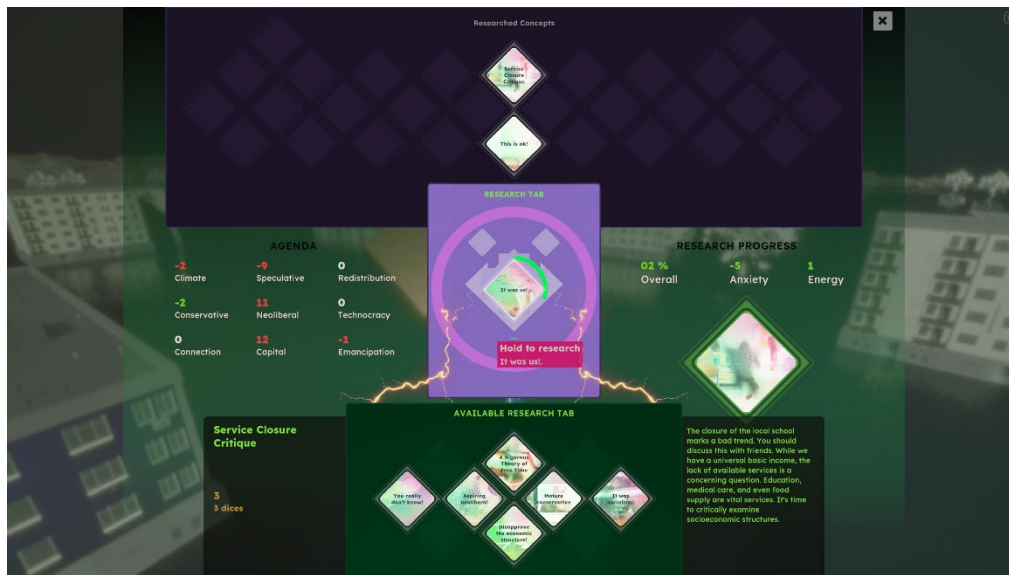


Figure 3 Research screen in Workers Out of Office.

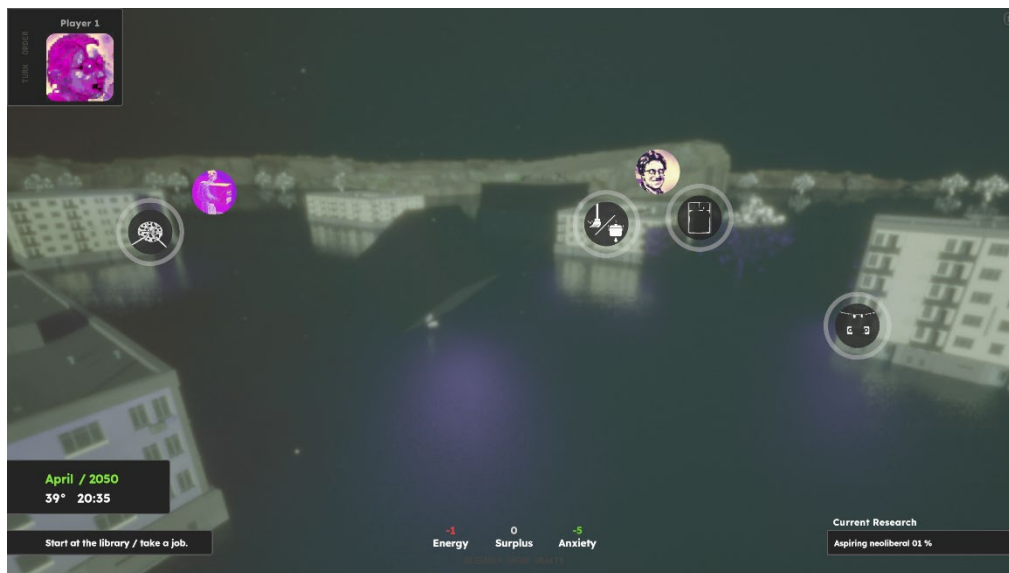


Figure 4 A city view in Workers Out of Office.

The second part of the series, the *Workers Out of Office: London DLC* (2024), is based on the speculation on the near future in 2040. It is set in the status quo of intensifying platform capitalism, and ongoing climate, economic and social crises. The DLC revolves around a dialogue that is almost fully based on a conversation with the conceptual painter Zuzana Jírová. The game spans several days. Each day marks one round in which the player saves up finance in gig jobs to move to London and chats with Zuzana on evenings. With Zuzana, we were imagining our futures in a society where we would be striving to make a better life by emigrating from the European outskirts towards the global centre. During our dialogue, we shared the perspective of subjective alienation, defined by the boundaries of objective material alienation, which was then a prequel towards thinking about the affordances of agency in non-democratic futures from *Workers Out of Office*. I have simplified the original game mechanics, highlighting shared dialogue as the main form of play. The goal was not only to focus on securing game value in the form of surplus and energy, or by researching concepts

and eventually reaching the best potential future, but rather to cultivate speculative possibilities within the shared dialogue itself.

Workers Out of Office: London DLC

London DLC takes place in 2040 – ten years before Workers Out of Office – where it opens questions about survival, the search for one's ability to act meaningfully, and the emerging technocracy and capitalist feudalism in a world of crisis. The Workers Out of Office expansion is set in London and central European dystopian in the near future, where the welfare state is crumbling, and the job market is slowly collapsing. Central Europe suffers from drought, conservatives are gaining power, and the desert is expanding along the border between Czechia and Austria. You are trying to save money to move out, texting Zuzana, who has recently returned to London, where she is looking for a new job. The heroes address the poor economic situation and discuss ongoing crises, such as droughts, violence in London, and the collapsing job market. Zuzana wants to make it in the arts, but both of you must spend most of their time fighting for economic survival in the near future. The crisis also opens a new way of finding one's ability to take meaningful agency in a crisis world and the question of how to organise in new ways.

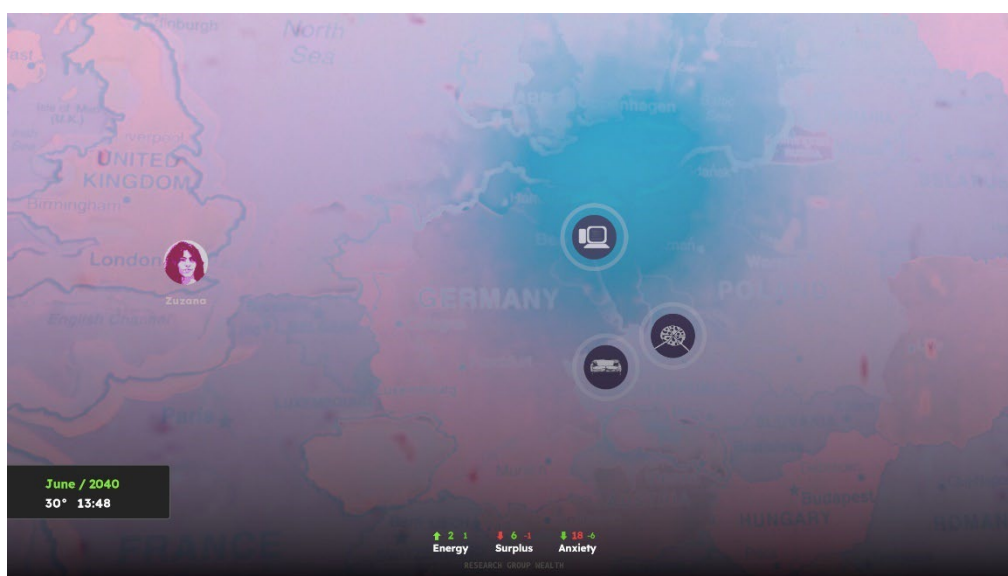


Figure 5 Opening screen in *Workers Out of Office: London DLC*

Finally, as already discussed in the first case study, with the Blue Pulsar collective, we participated in the exhibition titled *Symptoms of the Future*⁴⁰ at the Gallery Hraničář in Ústí nad Labem for which we have proposed *Lithium* (Blue Pulsar kolektiv, et al. 2025), an educative game project critical to the lithium mining in the nearby Cínovec area, which was commissioned by the Hraničář. It is a strategic card game, developed

40 The exhibition – open from September 2024 to February 2025 – was concerned with the injustices and dangers of the real extractivist project of lithium mining in Cínovec, a small border town near Ústí, as well as the global contexts of recent surge of interest in lithium mining across the world. The exhibition was curated by Martina Johnová, Anna Remešová, and Karolína Žižková.

simultaneously as a board game and digital game, speculating on democratic and de-growth response to lithium mining. The game educates players on problems with mining and on democratic possibilities to oppose it.

With this game project, I had the opportunity to test the framework and design principles proposed in the last chapter on an educational and collective game project. The *Lithium* game has been under development over one year, a fairly limited time scale for such a project. Nevertheless, it has allowed for iterating and continually updating the game with interviews and later also introducing an English translation.

The *Lithium* game design aimed at a broad public, first locals, but also the global audience that might experience similar struggles elsewhere. The game aimed to incorporate (hopefully successfully) the thinking on alienation, climate justice, and democratic agency, developed in dialogue with experts, local residents, and activists who participated in the interviews. The interviews are integral parts of the game rhetoric, as they represent the real issue beyond the simulation. In the end, any radical game design does not change reality by itself but should enable thinking through playing and visiting the game world and its actors. As such, *Lithium* is working with a realistic troubled utopia, as it procedurally represents the possible outcomes of political discussions and struggles. In this sense, it promotes the imagination of democratic agency and just green transformation in the future.

Lithium

In Lithium, you play as one of three social groups of choice – Activists, Locals, and the City – fighting against a planned lithium mining project in Cínovec. The developer seeks to start mining quickly, regardless of the interests of the region. To defeat the developer and win, players must cooperate with the remaining groups. Each of your actions may bring unexpected reactions, and you have to think about your strategy, taking into account different factors: the local community, the economy, the climate crisis, and the impact on nature or a fair energy transition. The goal of the game is to find a just and environmentally friendly solution for lithium mining in Cínovec. Players can achieve this goal in several ways: by stalling mining, blocking the developer, or trying to disrupt or change the mining project politically through a project to organise a democratic deliberative committee. To win the game, it is essential to join forces with all three social groups to gain broad support in society.

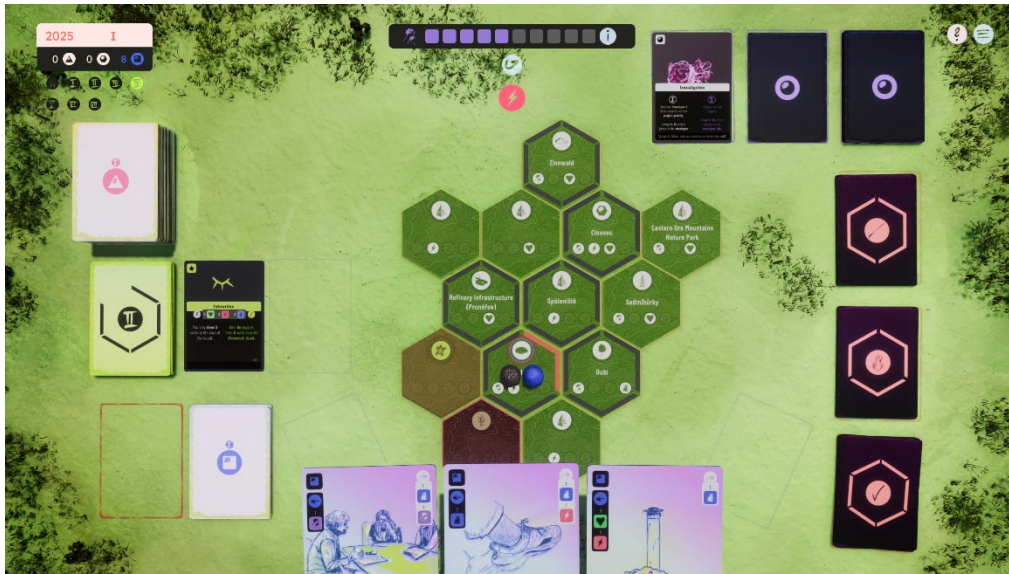


Figure 6 The initial scenario in Lithium with a deck of City cards.



Figure 7 An environmental reaction card in the second Lithium scenario.

ARTISTIC RESEARCH

I hope that the above description of the processes behind thinking about game-art projects that accompanied my theoretical thesis illustrates well the possibilities of practice-based research methods within artistic research. Contextualising something as an artwork (or procedural story/narrative) opens a range of perspectives on the subject and allows for the same kind of sharing that is offered when discussing works of art. It allows critique and speculation through a process with shifting actor perspectives. In the case of the above discussions, research and artistic practice enabled me to think through a framework with multiple perspectives, with the economic critique of alienated labour, as well as performative software ideology, and speculation based on troubled utopia and shared agency.

Although that artistic research remains a highly contested and elusive term, it has easily definable advantages over methods usually considered more rigorous. The prime example is the emphasis on procedurality of the artistic project and the emphasis on experience of thinking through a work on or interaction with the work of art (Klein 2017). Both categories are symptomatic of the experience with procedural art media such as digital games and game art.

Ultimately, what we can take from such thinking compared to traditional research methods is the experience of the research process as a story. Stories and games here are allegories and, therefore, they are meanings interpreted by the audience. The agency of interpretation here is always shared in both art and artistic research, allowing us to cultivate thinking that pushes against normalised and stereotypical imaginations. Artistic research is importantly not only a form of illustration of the research question but it is also a form of original thinking that uses the practical affordances of creating artwork and of experiencing it in a shared dialogue. This is stressed by the artist and researcher Irina Gheorghe (2024) in her report on evaluating artistic research. Following Gheorghe, artistic research is often an interdisciplinary practice centred around artwork or systematic art project that considers both the wide context of art practice and the gap in knowledge that it aims to fill.

Such research process should be shared. The format of art exhibitions serves as an ideal method for such discussion because it opens up a temporal forum for thinking through a set of questions collectively with the artworks and agencies of exhibition participants and visitors. In this context, I was happy to organise the exhibition on critical imaginations of the other in game art with the artist and curator John Hill titled *Earthly Survival: Monstrous Games*.

Earthly Survival: Monstrous Games

The exhibition Earthly Survival aims to explore the new strategies of digital games, collaborative playing, and game development, and to outline a description of the principles by which developers, artists, and players can approach the medium of games critically. Perhaps the idea is to work against immersion and the ideological notion of interactivity – where the illusions of freedom hide rigid rules – and instead consciously confront the monsters of algorithmic simulation, the terror that comes from the mismatch between the simulation and the AFK world it tries to model against the backdrop of these ideas. Earthly Survival presents selected artists working with digital games on the edge of moving images, interactivity, activism, and politics. Artists: Molleindustria, Ondřej Trhoň & Nela Pietrová, Růžoví Plameňáci, Uma Breakdown, Danielle Brathwaite-Shirley

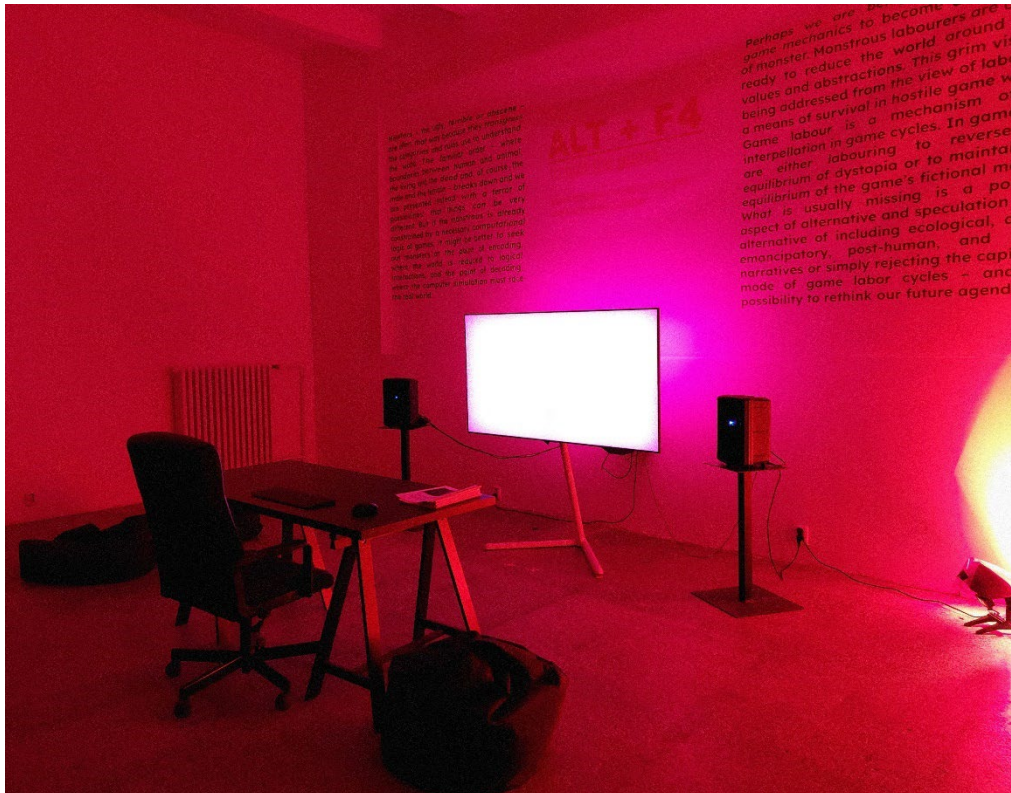


Figure 8 Earthly Survival: Monstrous Games installation at etc. gallery in Prague (December 2022).

The bottom line is that artistic research is (as any research practice) a collective undertaking. Therefore, I am grateful for the perspective on decolonial thinking that I was lucky to discuss with my theoretical consultant, the art historian and decolonial scholar Vjera Borozan. This perspective gave me critical lenses on otherwise highly colonial imagination of the cultural hegemony, which pushes thinking on peripheries of the centre to the margins. The thinking about the ideological dominance of capitalist and neoliberal narratives, emotional affects, player habits, game temporal rhythms was thinking we have been sharing with Ondřej Trhoň. Our discussions at conferences, our joint writing, and research projects have made possible to share speculation beyond the stereotypical economic imaginations. The supervision by the conceptual and new media artist Tomáš Svoboda allowed me to critically think through the perspectives of visitors, merging the tools provided by video, installation, and procedural game rules in critical thinking. Finally, conceptualising the heuristic framework and design principles would not be possible without my discussions and projects with Gabriela Štvrtněová, which helped me to develop a critical perspective on games procedural affordances that are political and to realize the importance of democratic agency in our imagination and speculation about future with (game-)art.

For example, lithium mining at Cínovec is not only a socially and economically controversial project; it is also an ambivalent topic in many ecological respects. Lithium is a strategic raw material necessary for the current European green transition, specifically for the transition to less emission-intensive electromobility and for battery production. The extraction and processing of lithium, however, has a destructive impact on the nature. There are also social impacts associated with the mining, including the loss of common land, the loss of water in area, the noise, and dust pollution. Dealing with such downsides of the energy transition shows that it is necessary to focus on justice and democratic participation of disproportionately affected populations on local

and global peripheries. Critical and speculative games may aim to educate players about alternatives to mining, such as non-extractive, de-growth, and fair economic models of the green transition.

Games can bring the perspective of a performative dialogue pointing to the importance of role of democratic alternatives to extractivism and generally normalised imagination of capitalist economies.

DREAMING ABOUT NEW AGENCY

Game art and critical games cannot eliminate capitalist labour, nor can they eliminate extractivism, but speculation and imagination are first steps towards any change. In recent years, neural networks have turned the outlook for human work upside down in almost all fields. Current neural networks are black-box technologies that depend on hardware and data capital. However, despite this and the general rise of authoritarianism interconnected with tech platforms, the development of artificial intelligence, which we encounter today in the form of neural networks and large language models, still holds some promise for emancipation. This promise can be realised by activism, democratic ownership of technologies, and, as I would argue, by speculative possibilities brought about by the interaction with new technologies. For example, AI is increasingly appearing in digital games and in other formerly highly human creative areas such as art.

A specific game in which algorithms take over human creative agency is chess. Since 1997, when the Deep Blue algorithm won the game over Garry Kasparov, there has been no hope that humans would play chess better than computers. However, the next chess revolution occurred in 2017. DeepMind's AlphaZero won 100 matches against Stockfish 8, the most powerful chess algorithm at the time, which managed to draw only once. AlphaZero not only used significantly lower computing capacity, but also learned to play chess on its own, thanks to its architecture based on reinforced learning technology. Until then, the algorithms, such as Stockfish and Deep Blue, had learned chess from human games, which they had analysed and refined. AlphaZero's victory therefore brought non-human imagination to the game.

AI applications and cybernetic imagination has not just change the way we work, have fun, design, or create art. They have also transformed how we perceive ourselves in social contexts, for example as optimal players or workers. The algorithms in a game create the need to design our intimate interfaces during the act of performative play – allegorisms through which players can relate to the game. This combination of allegory (interpretation of meaning hidden in this process) and algorithm (the procedure) is often ideological and conservative because it follows limited game design imagination. However, the upside of this is that the allegory carries a prompt for player agency. Following Fredric Jameson, the allegory needs to be interpreted, and, therefore, it carries a prompt for speculative performativity that might come in to dismantle the ideology pre-designed in the stereotypical imagination.

Ultimately, such speculation also raises a fundamental question of the present: the question of democratic freedom, equal access to technologies, and their material infrastructure. As shown in the above chapters, without the necessary knowledge, digital games often work with the allegories of reality: on the one hand, the abstraction of real processes (capitalism), and on the other, the abstraction of the fiction of reality (ideology). Somewhere in between, we can look for the speculative potential of critical games and alienating game mechanics. In practice, these can be alienating games and

speculative simulations aimed at critically interpreting ideologies commonly encountered in digital games and general software. From this perspective, chess mechanics reduce the representation of individual pieces on the chessboard to purely abstract functions devoid of any own personality or agency. The aim of the new critical and speculative games may be to present agencies and experiences of multiple actors (both human and non-human) with the notion of loving perception in playful visiting and troubled utopias of multitudes of possible game world fictions.

For example, imagine a chess game in which each piece has its agency driven by a unique algorithm separated from other pieces, that would not only try to preserve the piece's own life on the board, but would also communicate with other pieces and discuss the next moves with and against them. This is also a moment when the game would allow blooming of other approaches to the future: a critical imagination that is not purely based on transferring values in exchange game economies, or fighting opponents in agonistic negative exchange, but imagination of the future that is also based on collective agency. Introducing relations between pieces on the board, and most importantly introducing their agencies, shared or antagonistic to players agencies, allows for speculation with Maria Lugones concepts of loving perception and playful visiting. In other words, exploring the experiences of other actors, rather than just following the colonial conquest fictions and capitalist imaginaries of modern Western games that still dominate mainstream games. Speculation with loving visiting in imagination of possibility for troubled utopia also allows for democratic imagination that is critically missing in the imagination of agonistic games. The linking element here is the alienation of the simulation process, which allows designers, artists, and players to create new allegories and perceptions of various forms of shared agencies.

Non-democratic imagination in today's games, and software in general, helps reduce work to exploitable resource. With it, the allegories of unfree work permeate our thinking. A perfect illustration of this is the difference between today's and the historical Mechanical Turk, as described by Benjamin Bratton:

„[O]riginal mechanical turk in the eighteenth century was a chess-playing machine, apparently an automaton exhibiting human intelligence, but in fact operated from afar by a human User. Today Amazon Mechanical Turk restages this arrangement, not just for chess but for any menial task the User can devise. Behind the browser are at least half a million “workers” who complete piecemeal tasks for micropayment. We see not AIs appearing as if they were human, but humans appearing as if they were AIs.“ (Bratton 2015, 278-279)

General artificial intelligence is as of today a science fiction technology. However, technologies, such as neural networks and digital game algorithms, offer critical perspective that can overturn the current paradigms. Along with its material realities and its ownership, the fiction of artificial intelligence is currently just as important for our emancipation in the future as the upcoming artificial intelligence itself. Ultimately, we may stop looking down at game media and see them as art and artefacts that can help us conceive of new futures. The new modes of exchange in games, as well as critical and speculative approaches to the medium based on alienation and performativity, may prepare us for new conceptions of the future beyond improvement, growth, and extraction paradigms.

Index

8

80 Days, 64

A

affect, 81
Age of Empires II: Definitive Edition, 29, 39
agency, 18, 53
Alenda Chang, 74, 77
Alexander Galloway, 11, 56
Alfie Bown, 22
alienated exchange, 45, 53
Alienated exchange, 82
alienated games, 50, 61
alienation, 25, 45
Alienation, 80
allegories, 10, 43
allegories of control, 11
allegorism, 35
allegorismic economies, 22
allegorisms, 11
Antonio Gramsci, 17
attention economy, 32
attitude change, 72
avatar, 18

B

Bertolt Brecht, 54
Bettina Bódi, 18, 62

C

Caillois, 13
Cameron Kunzelman, 17
capital, 46
Capital, 53
capitalism, 46
capitalism and growth, 42
Citizen Sleeper, 51
Civilization VI, 36, 47
Civilization VI: Gathering Storm, 38
climate crisis, 73
code fetishism, 14, 71
colonialism, 66, 75
commodity fetishism, 68
countergaming, 57
crises, 38
critical art, 56

D

Death Stranding, 48
degree of agency, 63
democratic agency, 63, 73
Diann Bauer, 50

digital games, 23

E

ecogames, 66, 73, 79
economic fiction, 29
Edward Castronova, 19
Elden Ring, 99
embodied literacy, 70
empire, 67
estrangement, 50, 55
ethos, 16
Exchange, 80
exchange of game work for value, 40
exchange value, 32
exploration, 56
exploration stereotypes, 75
external market, 31
extractivism, 27, 66, 75

F

Fredric Jameson, 10
freedom, 51
Frostpunk, 93
Frostpunk 2, 96
fun, 65

G

game economies, 20
game economy, 83
Game exchange, 32
game map, 16
game market, 43
game modifications, 58
game value, 20
game work, 43
game world, 16, 79
gamescape, 21
gamespace, 21
gamification, 22, 34
global warming, 73
growth, 74

H

habit and repetition, 70
Hartmut Rosa, 20
hegemony, 17
heuristic method, 27
Homo Ludens, 12

Ch

chess, 16

I

Ian Bogost, 15, 35
ideologies, 16, 21, 33, 43
ideology, 42, 86
impact of games, 23
imperial imagination, 68
inner game market, 31
interface, 42
interpellation, 17
interpretation, 19
interpretative agency, 19

J

Johan Huizinga, 67
Jon Bailes, 42

L

Laura op de Beke, 79
Lithium, 89
loving perception, 67
loving visiting, 65

M

Maria Lugones, 65, 67
Marx, 32, 71
Marxism, 46
Mary Flanagan, 60, 69
meaningful player action, 62
Mechanical Turk, 12
Miguel Sicart, 34, 65
military, 67
monomyth, 80

N

negative agency, 69
negative exchange, 40
neoliberalism, 42

O

objective alienation, 46, 48
optimal play, 43

P

Paweł Frelik, 73
performative agency, 71
Performative agency, 81
performative code, 70
persuasive games, 15, 34
persuasive interfaces, 30
player agency, 56, 62

player labour, 83
political games, 58
positive player agency, 64
postcolonialism, 76
primitive accumulation, 46
Psychogeography, 55

R

radical game design, 60

S

serious games, 60
shared agency, 78
Sid Meier's Civilization VI, 29
simulation Gap, 35
Situationist International, 55
software, 65
software code, 69
Souvik Mukherjee, 76
speculation, 18, 77, 81
stereotypes, 66
subjective alienation, 50
Super Mario Clouds, 58
surplus populations, 37
surplus value, 41
synthetic alienation, 51

T

techno solutionism, 73
The Sims, 56
three-level heuristic framework, 80
transgressive play, 63
troubled utopia, 26, 77

U

undead memory, 70
utopian and negative fictions of exchange, 43
utopian exchange, 31, 38

V

value of players' actions, 41
V-effect, 55
videogames of the oppressed, 59
visiting, 65

W

Wendy Chun, 70

X

Xenofeminist Manifesto, 50

Bibliography And Ludography

[H.-O. Pörtner, D.C. Roberts, E.S. Poloczanska, K. Mintenbeck, M. Tignor, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem (eds.)]. "IPCC, 2022: Summary for Policymakers." In *Climate Change 2022: Impacts, Adaptation, and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*, by D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem, B. Rama (eds.) [H.-O. Pörtner, 3-33. doi:10.1017/9781009325844.001. Cambridge, UK and New York: Cambridge University Press, 2022.

11 Bit Studios. "Frostpunk." Digital game, 2018.

—. "Frostpunk 2." Digital game, 2024.

11 bit studios. "Frostpunk: The Last Autumn." *Digital game*. 11 bit studios, 2020.

Aarseth, Espen J. *Cybertext: Perspectives on Ergodic Literature*. Baltimore, MD: John Hopkins University Press, 1997.

Abraham, Benjamin, and Darshana Jayemanne. "Where are all the climate change games? - Locating digital games' response to climate change." *Transformations: Journal of Media, Culture & Technology*, 2017: 74-94. http://www.transformationsjournal.org/wp-content/uploads/2017/11/Trans30_05_abraham_jayemanne.pdf.

Acosta, Alberto. "Extractivism and neoextractivism: two sides of the same curse." In *Beyond development: alternative visions from Latin America*, by Miriam Lang and Dunia Mokrani, 61-86. Amsterdam: Rosa Luxemburg Foundation and Transnational Institute, 2013.

Althusser, Louis. "Ideology and Ideological State Apparatuses." In *Lenin and Philosophy and Other Essays*, by Louis Althusser, <https://www.marxists.org/reference/archive/althusser/1970/ideology.htm>. New York: Monthly Review Press, 1971.

Anable, Aubrey. *Playing with Feelings: Video Games and Affect*. <https://doi.org/10.5749/j.ctt20mvgwg>: University of Minnesota Press, 2018.

Apperley, Thomas. *Gaming Rhythms: Play and Counterplay from the Situated to the Global*. Amsterdam: Institute of Network Culture, https://www.networkcultures.org/_uploads/TOD%236%20total%20def.pdf, 2010.

Arcangel, Cory. *Super Mario Clouds*. Super Mario Bros modification.

Arcangel, Cory. *Super Mario Clouds*. Video installation.

Aslan, Joshua. "Climate Change Implications of Gaming Products and Services." *Doctoral dissertation, University of Surrey*. 2020. <https://doi.org/10.15126/thesis.00853729> (accessed September 7, 2023).

- Bailes, Jon. *Ideology and the Virtual City: Videogames, Power Fantasies and Neoliberalism*. London, UK: Zero Books (John Hunt Publishing), 2019.
- Bauer, Diann. "Alienation, Freedom and The Synthetic How." *Angelaki*, 24:1, 2019: 106-117.
- Becker-Ho, Alice, and Guy Debord. *A Game of War*. London: Atlas Press, 2007.
- Beke, Laura op de. *Anthropocene Temporalities in Videogames: The Anthropocene as a Structure of Feeling in Popular Gameplay*. Oslo: Dissertation for the Degree of PhD, UiO, Faculty of Humanities, 2023.
- Beke, Laura op de. "Dark Play and the Flow Time of Petroculture in Oil-Themed Games." In *Ecogames: Playful Perspectives on the Climate Crisis*, by Laura op de Beke, Joost Raessens, Stefan Werning and Gerald Farca, eds. 295-310. Amsterdam University Press, 2024.
- Beke, Laura op de, Joost Raessens, and Stefan Wening. "Ecogames: An Introduction." In *Ecogames: Playful Perspectives on the Climate Crisis*, by Laura op de Beke, Joost Raessens, Stefan Werning and Gerald Farca, eds. 9–70. Amsterdam University Press. <https://doi.org/10.2307/jj.10819591>, 2024.
- Beke, Laura op de, Joost Raessens, Stefan Werning, and Gerald Farca, eds. *Ecogames: Playful Perspectives on the Climate Crisis*. Amsterdam University Press, 2024. <https://doi.org/10.2307/jj.10819591>, 2024.
- Beller, Jonathan. *The Cinematic Mode of Production: Attention Economy*. Lebanon, NH: Dartmouth College Press, 2006.
- Berlin, Isiah. "Two Concepts of Liberty." In *Four Essays on Liberty*, by Isiah Berlin. London: Oxford University Press, 2002.
- Black Isle Studios, Beamdog. *Planescape: Torment*. Digital game: Beamdog, Interplay Entertainment, Skybound Games, Overhaul Games, 1999.
- Blizzard Entertainment. "World of Warcraft." Digital game: Blizzard Entertainment, 2004 - now.
- . "World of Warcraft: Wrath of the Lich King." Digital game, 2008.
- Blue Pulsar kolektiv, Filip Hauer, Gabriela Štvrtňová, Veronika Petrova, Michal Žák, and Vojtěch Košář. "Lithium." Digital & board game: Blue Pulsar kolektiv, 2025.
- Boal, Augusto. *Theatre of the oppressed*. London: Pluto Press, 2008.
- Bódi, Bettina. *Videogames and agency*. New York, NY: Routledge. <https://doi.org/10.4324/9781003298786>, 2023.
- Bogost, Ian. *Persuasive games: the expressive power of videogames*. Cambridge, MA: MIT Press, 2007.
- Bown, Alfie. *Playstation Dreamworld*. Cambridge, UK: Polity Press, 2018.
- Brand, Ulrich, and Markus Wissen. *The Imperial Mode of Living: Everyday Life and the Ecological Crisis of Capitalism*. London: Verso, 2021.

- Bratton, Benjamin. *The Stack: On Software and Sovereignty*. Cambridge Massachusetts: The MIT Press, 2015.
- Caillois, Roger. *Man, Play and Games*. Illinois: University of Illinois Press, 2001.
- Cardboard Computer. *Kentucky Route Zero*. Digital game.
- Cassar, Robert. "Gramsci and Games." *Games and Culture*, Vol. 8, Issue 5., 2013: 330-353. <https://doi.org/10.1177/1555412013493499>.
- Castronova, Edward. "Virtual Worlds: A First-Hand Account of Market and Society on the Cyberian Frontier." *Gruter Institute Working Papers on Law, Economics, and Evolutionary Biology*, 2001: <http://dx.doi.org/10.2139/ssrn.294828>.
- Cicholewski, Alena. "Challenging Heroic Narratives of Polar Exploration in Indie Video Games." *Games and Culture*, I-17, 2023: <https://doi.org/10.1177/15554120231196261>.
- Creative Assembly, Feral Interactive. "Empire: Total War." Feral Interactive, Sega, 2009.
- Crogan, Patrick. *Gameplay mode: war, simulation, and technoculture*. Minneapolis, MN: University of Minnesota Press, 2011.
- Cyan. *Myst*. Digital game: Broderbund, 1993.
- Dean, Jodi. *Democracy and Other Neoliberal Fantasies: Communicative Capitalism and Left Politics*. Durham, NC: Duke University Press Books, 2009.
- Dyer-Witheford, Nick, and Greig de Peuter. *Games of empire: global capitalism and video games*. Minneapolis: University of Minnesota Press, 2009.
- Endnight Games. "The Forest." *Digital game*. Endnight Games, 2014.
- Farocki, Harun. *Serious Games I-IV*.
- Federici, Silvia. *Caliban and the Witch: Women, the Body and Primitive Accumulation (2004)*. London: Penguin Classics, 2021.
- Firaxis Games. *Sid Meier's Civilization® VI*. PC game, 2K.
- Firaxis Games. *Sid Meier's Civilization® VI: Gathering Storm*. PC game, 2K.
- Flanagan, Mary. *Critical play : radical game design*. Cambridge, MA: The MIT Press, 2009.
- Flanagan, Mary, and Mikael Jakobsson. *Playing Oppression: The Legacy of Conquest and Empire in Colonialist Board Games*. Cambridge, MA: The MIT Press. DOI: <https://doi.org/10.7551/mitpress/11779.001.0001>, 2023.
- Foucault, Michael. "The Subject and Power." *Critical Inquiry*, Vol. 8, by The University of Chicago Press, 1982: 777-795. <https://www.jstor.org/stable/1343197>.
- Forgotten Empires, Tantalus Media, and Wicked Witch. *Age of Empires II: Definitive Edition*. PC game, Xbox Game Studios.

- Frasca, Gonzalo. *Videogames of the oppressed: Videogames as a means for critical thinking and debate*. Master thesis: Georgia Institute of Technology, 2001.
- Frelík, Paweł. “Green New Worlds?: Ecology and Energy in Planetary Colonization Games.” In *Ecogames: Playful Perspectives on the Climate Crisis*, by Laura op de Beke, Joost Raessens, Stefan Werning and Gerald Farca, eds. 275–94. Amsterdam University Press. <https://doi.org/10.2307/jj.10819591.15>, 2024.
- FromSoftware, Inc. “Elden Ring.” Digital game: FromSoftware, Inc., Bandai Namco Entertainment, 2022.
- . “Elden Ring Shadow of the Erdtree.” Digital game, 2024.
- Galloway, Alexander. *Gaming: Essays On Algorithmic Culture*. Minneapolis: University of Minnesota Press, 2006.
- Garite, Matt. “The Ideology of Interactivity.” *Proceedings of the 2003 DiGRA International Conference: Level Up*. <http://www.digra.org/wp-content/uploads/digital-library/05150.15436.pdf>, 2003.
- Gheorghe, Irina. “Evaluating Artistic Research at AVU.” *A working proposal from LARGE AVU (Laboratory for Art, Research and Graduate Education)*. https://be.avu.cz/app/uploads/2021/08/Evaluating-Artistic-Research-at-AVU_Irina-Gheorghe_January-2024.pdf: The Academy of Fine Arts in Prague, January 2024.
- Google. *Quick, Draw!* Digital game: Google, GHU Enterprise, 2016.
- Haraway, Donna J. *Staying with the Trouble*. Durham: Duke University Press, 2016.
- Hauer, Filip. “Allegorithmic Politics of Game Exchange – Subversion, Ideology, and Capitalism in Strategy Games.” *DiGRA 2023: Limits and Margins of Games*. Sevilla: <https://dl.digra.org/index.php/dl/article/view/1929>, 2023.
- Hauer, Filip. “Dreaming About Work 09: For Loop Contingency.” <https://filip-hauer.itch.io/dreaming-about-work-09-for-loop>. Digital game and installation, 2021.
- Hauer, Filip. “For how many are your futures? Dreaming About Work: The Board Game.” <https://futurework.cofutures.org/>. Board game pdf sheet: CoFUTURES, 2022.
- Hauer, Filip. “Workers Out of Office: Dreaming About Work.” Digital game and installation, 2023.
- Hauer, Filip. “Workers Out of Office: London DLC.” Digital game and installation, 2024.
- Hayse, Mark. “Ideology.” In *The Routledge Companion to Video Game Studies*, by Bernard Perron Edited By Mark J.P. Wolf, 442-450. New York: Routledge, 2014.
- Heidegger, Martin. *The Question Concerning Technology and Other Essays*. New York: Harper Collins, 2013.

- Heinrich, Michael. *An Introduction to the Three Volumes of Karl Marx's Capital*. NYU Press, 2004.
- Herzog, Lisa. "Markets". *The Stanford Encyclopedia of Philosophy (Fall 2021 Edition)*. 2021. <https://plato.stanford.edu/archives/fall2021/entries/markets/> (accessed September 2, 2022).
- Holmes, Steve. *The Rhetoric of Videogames as Embodied Practice Procedural Habits*. New York: Routledge, 2017.
- Huizinga, Johan. *Homo Ludens: A study of the play-element in culture*. London: Routledge & Kegan Paul Ltd , 1949.
- Chang, Alenda Y. *Playing Nature: Ecology in Video Games*. Minneapolis: University of Minnesota Press, 2019.
- Charles Games. "Beecarbonize." Digital game, 2023.
- Chibber, Vivek. *The Class Matrix: Social Theory after the Cultural Turn*. Cambridge, MA: Harvard University Press, <https://doi.org/10.2307/j.ctv24q54pn>, 2022.
- Christiano, Tom, and Bajaj Sameer . "Democracy." In *The Stanford Encyclopedia of Philosophy (Spring 2022 Edition)*, by Edward N. Zalta (ed.), <https://plato.stanford.edu/archives/spr2022/entries/democracy/>. 2022.
- Chun, Wendy Hui Kyong. "On "Sourcery," or Code as Fetish." *Configurations, Volume 16*, 2008: 299-324.
- Chun, Wendy Hui Kyong. "On Sourcery and Source Codes." In *Programmed Visions: Software and Memory*. Cambridge, MA: The MIT Press, 2011.
- . *Updating to Remain the Same: Habitual New Media*. Cambridge, MA: MIT Press, 2017.
- Inkle, Cape Guy Limited. "80 Days." *Digital game*. Inkle, Profile Books, 2014.
- Jagex. "RuneScape." Jagex, 2001.
- Jameson, Frederic. *Brecht and Method*. London: Verso, 1999.
- Jameson, Fredric. *Allegory and Ideology*. London: Verso, 2019.
- Janoščík, Václav. *Dystopický realismus. Jak se učit skrze kapitalismus a temné budoucnosti*. Prague: Akademie výtvarných umění v Praze, 2021.
- Jayemanne, Darshana, Brendan Keogh, and Ben Abraham. "Hideo Kojima, Death Stranding (2019) / Reconnecting in the Time of Climate Change." In *Uneven Futures: Strategies for Community Survival from Speculative Fiction*, by Sean Guynes, Gerry Canavan Edited by Ida Yoshinaga, 221-228. Cambridge, MA: The MIT Press, <https://doi.org/10.7551/mitpress/14093.003.0033>, 2022.
- Jennings, Stephanie C. "Only you can save the world (of videogames): Authoritarian agencies in the heroism of videogame design, play, and culture." *Convergence*, 28(2), 2022: 320-344. <https://doi.org/10.1177/13548565221079157>.
- Jump Over The Age. *Citizen Sleeper*. Digital game: Fellow Traveller, 2022.

- Junka-Aikio, Laura, and Catalina Cortes-Severino. "Cultural Studies of Extraction." *Cultural Studies* 31 (2-3), 2017: 175–84. doi:10.1080/09502386.2017.1303397.
- Juul, Jesper. *Half-Real: Video Games between Real Rules and Fictional Worlds*. Cambridge, MA: MIT Press, 2011.
- Keever, Justin. "Videogames and the Technicity of Ideology: The Case for Critique." *Game Studies*, vol. 22. April 2022. http://gamestudies.org/2202/articles/gap_keeveer (accessed December 6, 2022).
- Keogh, Brendan. *A Play of Bodies*. Cambridge, MA: The MIT Press, 2018.
- . *A Play of Bodies*. Cambridge, MA: The MIT Press, 2018.
- Klein, Julian. "What is Artistic Research?" *jar-online.net*, 2017: doi: 10.22501/jarnet.0004.
- Kojima Productions. *Death Stranding Director's Cut*. Digital game: 505 Games, 2019, 2022.
- . *Death Stranding Director's Cut*. Digital game: 505 Games, 2019, 2022.
- Kojima, Hideo. Konami Computer Entertainment Japan. *Metal Gear Solid*. Digital game: Konami, 1998.
- Kolek, Lukáš, Ivan Ropovik, Vít Šisler, Herre van Oostendorp, and Cyril Brom. "Video games and attitude change: A meta-analysis." *Contemporary Educational Psychology*, Volume 75., September 2023: <https://doi.org/10.1016/j.cedpsych.2023.102225>.
- Kunzelman, Cameron. *The World Is Born From Zero*. Berlin/Boston: De Gruyter Oldenbourg, 2022.
- Laboria Cuboniks. *The Xenofeminism Manifesto*. London: Verso, 2018.
- Lallani, Shayan S. "Virtual Empire: Performing Colonialism in the MMORPG Runescape." *Games and Culture*, Vol. 18(5), 2023: 539-558.
- Lefebvre, Henri. *Rhythmanalysis: Space, Time and Everyday Life*. London: Continuum, 2004.
- Leopold, David. "Alienation." In *The Stanford Encyclopedia of Philosophy (Winter 2022 Edition)*, by Edward N. Zalta & Uri Nodelman (eds.), <https://plato.stanford.edu/archives/win2022/entries/alienation/>. 2022.
- Lloyd, J., Frost, S., Kuliesius, I., & Jones, C. "Locus of control and involvement in videogaming." *New Media & Society*, 21(7), 2019: 1613-1635. <https://doi-org.ezproxy.lib.cas.cz/10.1177/1461444819828308>.
- Lugones, Mária. "Playfulness, "World"-Travelling, and Loving Perception." *Hypatia*, 1987: 3-19.
- Magie, Elizabeth. *The Landlord's Game*. Arden, Delaware: Economic Game Company, 1904.

- Magnet, Shoshana. "Playing at Colonization: Interpreting Imaginary Landscapes in the Video Game Tropico." *Journal of Communication Inquiry* 30, no. 2, 2006: 142–62. doi:10.1177/0196859905285320.
- Makai, Kristóf Péter. "Do You Want to Set the World on Fire?" In *Ecogames: Playful Perspectives on the Climate Crisis*, by Laura op de Beke, Joost Raessens, Stefan Werning and Gerald Farca, eds. 89–108. Amsterdam University Press, 2024. <https://doi.org/10.2307/jj.10819591.5>, 2024.
- Martin, James. "Antonio Gramsci." In *The Stanford Encyclopedia of Philosophy (Spring 2023 Edition)*, by Edward N. Zalta and Uri Nodelman, <https://plato.stanford.edu/archives/spr2023/entries/gramsci/>. Metaphysics Research Lab, Stanford University, 2023.
- Marx, Karl. *Capital: Critique of Political Economy, Volume One*. London: Penguin Books, 1990.
- . *Capital: Critique of Political Economy, Volume Three*. London: Penguin Books, 1991.
- Marx, Karl, and Friedrich Engels. *German Ideology Part I: Feuerbach Opposition of the Materialist and Idealist Outlook*. 1932. <https://www.marxists.org/archive/marx/works/1845/german-ideology/ch01b.htm> (accessed December 14, 2022).
- Maxis, Edge of Reality. *The Sims*. Digital game: Electronic Arts, Aspyr, 2000.
- Meiksins Wood, Ellen. *Origin of Capitalism: A Longer View*. London: Verso, 2002.
- Minh Le, Jess Cliffe, Richard Gray, Valve Software. *Counter-Strike*. Digital games: Valve Corporation, Nexon, Gamania Digital, Namco, 1999.
- Mortensen, Torill Elvira, Jonas Linderöth, and Ashley ML Brown. *The Dark Side of Game Play: Controversial Issues in Playful Environments*. eds. New York: Routledge, <https://doi.org/10.4324/9781315738680>, 2015.
- Mukherjee, Souvik. "No Cyclones in Age of Empires: Empire, Ecology, and Video Games." In *Ecogames: Playful Perspectives on the Climate Crisis*, by Laura op de Beke, Joost Raessens, Stefan Werning and Gerald Farca, eds. 163–80. Amsterdam University Press, 2024. <https://doi.org/10.2307/jj.10819591.9>, 2024.
- Mukherjee, Souvik. "Playing Subaltern: Video Games and Postcolonialism." *Games and Culture, Vol. 13(5)*, 2018: 504–520.
- Murray, Janet. *Hamlet on the holodeck*. Cambridge, MA: MIT Press, 1997.
- Murray, Soraya. "Postcoloniality, Ecocriticism and Lessons from the Playable Landscape." In *Ecogames: Playful Perspectives on the Climate Crisis*, by Laura op de Beke, Joost Raessens, Stefan Werning and Gerald Farca, eds. 145–62. Amsterdam University Press, 2024. <https://doi.org/10.2307/jj.10819591.8>, 2024.
- Nguyen, C. Thi. *Games: agency as art*. New York, NY: Oxford University Press, 2020.

- Ollman, Bertell. *Class Struggle*. The Avalon Hill Game Company, 1978.
- op de Beke, Laura. "Anthropocene Temporality in Gaia Games." *KronoScope*, 2020: 239-259, doi.org/10.1163/15685241-12341470.
- Parker Brothers. *Monopoly*. Parker Brothers, 1935.
- Pfaller, Robert. *On the Pleasure Principle in Culture: Illusions Without Owners*. London: Verso, 2014.
- Pizelo, Samuel. "Games Built the Computer: Babbage, Lovelace and the Dawn of the Ludic Age." *Game Studies*, volume 24 issue 3, 2024: <https://gamestudies.org/2403/articles/pizelo>.
- Pötzsch, Holger. "Playing Games with Shklovsky, Brecht, and Boal: Ostranenie, V-Effect, and Spect-Actors as Analytical Tools for Game Studies." *Game Studies*, volume 17 issue 2, 2017: <https://gamestudies.org/1702/articles/potzsch>.
- Rockstar Games. "Red Dead Redemption 2." *Digital game*. Rockstar Games, 2018.
- Rosa, Hartmut. *Social acceleration: a new theory of modernity*. New York: Columbia University Press, 2013.
- Roth, Abraham Sesshu. "Shared Agency." *The Stanford Encyclopedia of Philosophy (Summer 2017 Edition)*, Edward N. Zalta (ed.). 2021. <https://plato.stanford.edu/archives/sum2017/entries/shared-agency/>.
- Rotter, Julian. "Generalized expectancies for internal versus external control of reinforcement." *Psychological Monographs: General and Applied*, 80(1), 1966: 1–28. <https://doi.org/10.1037/h0092976>.
- Schickore, Jutta. "Scientific Discovery." In *The Stanford Encyclopedia of Philosophy*, by Edward N. Zalta and Uri Nodelman, <https://plato.stanford.edu/archives/win2022/entries/scientific-discovery/>. Metaphysics Research Lab, Stanford University, 2022.
- Sicart, Miguel. "Playful Capitalism, or Play as an Instrument of Capital." *Contracampo - Brazilian Journal of Communication*, v. 40, n. 2., 2021.
- Sicart, Miguel. "Defining Game Mechanics." *Game Studies*, volume 8 issue 2., 2008: <https://gamestudies.org/0802/articles/sicart>.
- . *Playing software: homo ludens in computational culture*. Cambridge, MA: MIT Press, 2023.
- . *The Ethics of Computer Games*. Cambridge, MA: MIT Press, 2011.
- Sotamaa, Olli. "Artifact." In *The Routledge Companion to Video Game Studies*, by Bernard Perron Edited By Mark J.P. Wolf, 3-9. New York: Routledge, 2014.
- Spivak, Gayatri Chakravorty. *Outside in the Teaching Machine*. London: Taylor & Francis Group, 2008.
- Srnicek, Nick. *Platform capitalism*. Cambridge, UK: Polity, 2016.

- Srnicek, Nick, and Alex Williams. *Inventing the Future (revised and updated edition): Postcapitalism and a World Without Work*. London: Verso, 2016.
- Stallabrass, Julian. "Just Gaming." In *Gargantua: Manufactured Mass Culture*, by Julian Stallabrass, 84-112. London: Verso, 1996.
- State of Play. "South of the Circle." *Digital game*. State of Play, 11 Bit Studios, 2020.
- Steyerl, Hito. *Factory of the Sun*.
- Šisler, Vít, Jaroslav Švelch, and Josef Šlerka. "Video Games and the Asymmetry of Global Cultural Flows: The Game Industry and Game Culture in Iran and the Czech Republic." *International Journal of Communication* 11, 2017: 3857-3879.
- Štvrtňová, Gabriela, and Filip Hauer. "Non-domination power and player agency in ecogames: Conceptualizing democratic agency." forthcoming.
- Švelch, Jaroslav. *Player vs. Monster: The Making and Breaking of Video Game Monstrosity*. Cambridge, MA: MIT Press, 2023.
- Tanenbaum, Theresa J. "How I Learned to Stop Worrying and Love the Gamer: Reframing Subversive Play in Story-Based Games." *DiGRA '13 - Proceedings of the 2013 DiGRA International Conference: DeFragging Game Studies*. <http://www.digra.org/digital-library/publications/how-i-learned-to-stop-worrying-and-love-the-gamer-reframing-subversive-play-in-story-based-games/>, 2014.
- Tavinor, Grant. "Art and Aesthetics." In *The Routledge Companion to Video Game Studies (First edition)*, by Edited by Mark J. P. Wolf and Bernard Perron, 59-66. New York: Routledge, 2014.
- Tavinor, Grant. "Fiction." In *The Routledge Companion To Video Game Studies: Second Edition*, by Mark J. P. Wolf and Bernard Perron, 547-554. New York: Routledge, 2023.
- Trhoň, Ondřej, and Filip Hauer. "Temporalities of open world work ideology: the case of Elden Ring and Genshin Impact." forthcoming.
- United States Army. "America's Army." Digital game series, 2002 - 2022.
- Vallier, Kevin. "Neoliberalism." *The Stanford Encyclopedia of Philosophy (Summer 2021 Edition)*, Edward N. Zalta (ed.). 2021. <https://plato.stanford.edu/archives/sum2021/entries/neoliberalism> (accessed August 30, 2022).
- Valve. *Half-Life*. Digital game: Sierra Studios, 1998.
- van Ryn, Luke, Thomas Apperley, and Justin Clemens. "Avatar economies: affective investment from game to platform." *New Review of Hypermedia and Multimedia*, 24:4, 2019: 291-306, <https://doi.org/10.1080/13614568.2019.1572790>.
- Verant Interactive. "EverQuest." Digital game: Sony Interactive Entertainment, 1999.

- W+K Lodge. "KFC The Hard Way." Digital game, 2017.
- Wark, McKenzie. *Gamer Theory*. Cambridge, MA: Harvard University Press, 2007.
- . *The Beach Beneath The Street: The Everyday Life and Glorious Times of the Situationist International*. London: Verso, 2015.
- Whitney Museum of American Art. *Cory Arcangel Super Mario Clouds 2002*. n.d. <https://whitney.org/collection/works/20588> (accessed October 20, 2023).
- Wizards of the Coast. *Magic: The Gathering Arena*. Digital game, 2018.
- Woff, Jonathan, and David Leopold. "Karl Marx", *The Stanford Encyclopedia of Philosophy* (Spring 2021 Edition). 2021. <https://plato.stanford.edu/archives/spr2021/entries/marx/> (accessed October 9, 2022).
- Wollen, Peter. "Godard and Counter-Cinema: Vent d'est." *Studio International* 190,, 1975: 171-175.
- Woodcock, Jamie. *Marx at the Arcade: Consoles, Controllers, and Class Struggle*. Chicago, US: Haymarket Books, 2019.
- Ypi, Lea. *Free: Coming of Age at the End of History*. London: Allen Lane an imprint of Penguin Books, 2021.
- Yve-Alain Bois, Benjamin H. D. Buchloh, David Joselit, Hal Foster, Rosalind Krauss. *Art Since 1900 (Third edition)*. London: Thames & Hudson, 2016.
- ZA/UM. *Disco Elysium*. Digital game.
- Zanakis, Stelios H., and James R. Evans. "Heuristic "Optimization": Why, When, and How to Use It." *Interfaces*, 1981: 84-91. <https://www.jstor.org/stable/25060151>.

IMAGES

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