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AUTHENTIC-LITE RHETORIC: THE CURATION OF HISTORICAL
INTERPRETATIONS IN *HEARTS OF IRON IV*

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A thesis submitted in partial fulfilment of the requirements of
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Declaration

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Parts of this thesis form the basis of published works by the author:

Pennington, M., (2021). 'Curated Expressions of Japanese History in Hearts of Iron IV'. *The Journal of Replaying Japan*. 3. A.A.M.: 5 March 2021.

Abstract

This thesis argues that *Hearts of Iron IV (HoIIV)* presents curated historical interpretations about the origins of the Second World War. These claims are demonstrated through the concept of authentic-lite rhetoric; public-facing historical interpretations produced by computation and text. The thesis identifies *HoIIV's* National Focus Trees (NFTs), diagrams that document the progression of history, as 'engines of causality' which simultaneously conceive of a recognisable past and function to statistically support the player. The thesis examines how territorial expansion, economic and industrial development, and political ideology are disseminated to the player through the NFTs of the German Reich, Soviet Union, and United Kingdom.

The thesis illustrates how *HoIIV's* curated expressions of history present the Second World War as an inevitable conflict. Through systemic and textual abstraction, the NFTs amplify political events, but overlook cultural and social phenomena. The thesis creates a framework for exploring the NFTs through external paratexts, utilising the HOI4 Wiki online encyclopedia as a dominant source base. HOI4 Wiki openly disseminates all computational and textual information associated to the NFTs. By consulting an external object of digital game culture, the thesis examines how the history of the late-1930s is curated by the NFTs and presents an innovative approach for understanding how both game system and text reinterpret history. In this methodology, the thesis demonstrates that historical game studies scholarship can be conducted without direct access to a digital game.

Ultimately, the thesis determines that *HoIIV's* NFTs present a fractious epoch where totalitarian regimes are more effective in waging war than democratic states. The NFTs characterise democracies as burdened by bureaucracy, while totalitarian nations are regimes of political, military, and industrial dynamism. Through these curated expressions of history, the developer-curators portray the mid-to-late 1930s as a linear passage towards an inevitable global conflict.

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However, it would simply not have been possible to complete this research without the support of many people. My sincerest thanks go to the supervisory dream team of Prof. James Newman and Dr. Clifford Williamson. Throughout this process you have both been encouraging, and generous with your time, guidance, and expertise. I am very grateful for your unwavering support through what has been exceedingly difficult circumstances.

I will always be thankful to my family, who have always supported my dreams of "just playing videogames" (their words). They have continually reminded me that there is life outside of the PhD - but let this work be proof that I really wasn't lazing the days away.

And finally, to Louise, thank you for your unwavering understanding, empathy, and unlimited reserves of humour and kindness. I will be forever grateful for seeing this task through with you by my side. This PhD is dedicated to you.

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List of Abbreviations

<i>CKII</i>	<i>Crusader Kings II.</i>
DLC	Downloadable Content.
<i>EUIV</i>	<i>Europa Universalis IV.</i>
<i>HoI</i>	<i>Hearts of Iron.</i>
<i>HoII</i>	<i>Hearts of Iron II.</i>
<i>HoIII</i>	<i>Hearts of Iron III.</i>
<i>HoIV</i>	<i>Hearts of Iron IV.</i>
NFTs	National Focus Trees.
PDS	Paradox Development Studios.
<i>RotTK</i>	<i>Romance of the Three Kingdoms.</i>
<i>SMC</i>	<i>Sid Meier's Civilization.</i>
<i>SMCIII</i>	<i>Sid Meier's Civilization III.</i>
<i>SMCVI</i>	<i>Sid Meier's Civilization VI.</i>

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Chapter 1: Introduction

Hearts of Iron IV (HoIIV) produces curated expressions of ‘authentic-lite rhetoric’. The thesis understands authentic-lite rhetoric as historical interpretations created by a combination, or collision, of a digital game’s computational processes and its textual data. The term encompasses the broadly recognisable historical narratives that are implemented in digital games. Moreover, authentic-lite rhetoric also considers how histories are partially represented within digital games as a direct consequence of how the medium’s limitations affect the transposition of these narratives into text and computational systems that are catered for a large audience. The thesis argues that *HoIIV* creates authentic-lite rhetoric through its National Focus Trees (NFTs): branching technology tree diagrams which chart historical progression from 1 January 1936 through landmark events known as ‘national focuses’ (ReAn, 2020) (Figure 1). Repurposing a phrase from historian Eric Hobsbawm (1995, p. 3), the NFTs “understand and explain why things turn out the way they did, and how they hang together”.

However, there is a fundamental tension within the NFTs and their projection of history. They are ‘engines of causality’, simultaneously operating as a historical roadmap of the origins of the Second World War, and a game mechanic that aids player progression. The NFTs systemically map historical progression while also attempting to produce an entertaining experience for players (Kempshall, 2015, pp. 7-8). This innate tension between historical interpretation and a designed game system identifies the NFTs as a convergence point of visible, partial, and curated representations of history. *HoIIV*’s advertising pitch promises an opportunity to shape history through an “authentic real-time war simulation” (Humble Bundle, 2016; Paradox Store, 2016; Steam, 2016). Yet, far from an authentic depiction, *HoIIV*’s NFTs present curated representations of the epoch. Within this designed curation, historical information is either amplified or discarded to better fit the computational systems of the simulation. In an urgent contemporary context, where history is being deployed and reimagined for political purposes (Buckley,

2021), it is crucial to examine the cultural objects that surround us and intensely interrogate how they publicly play with, and reinterpret, the past.

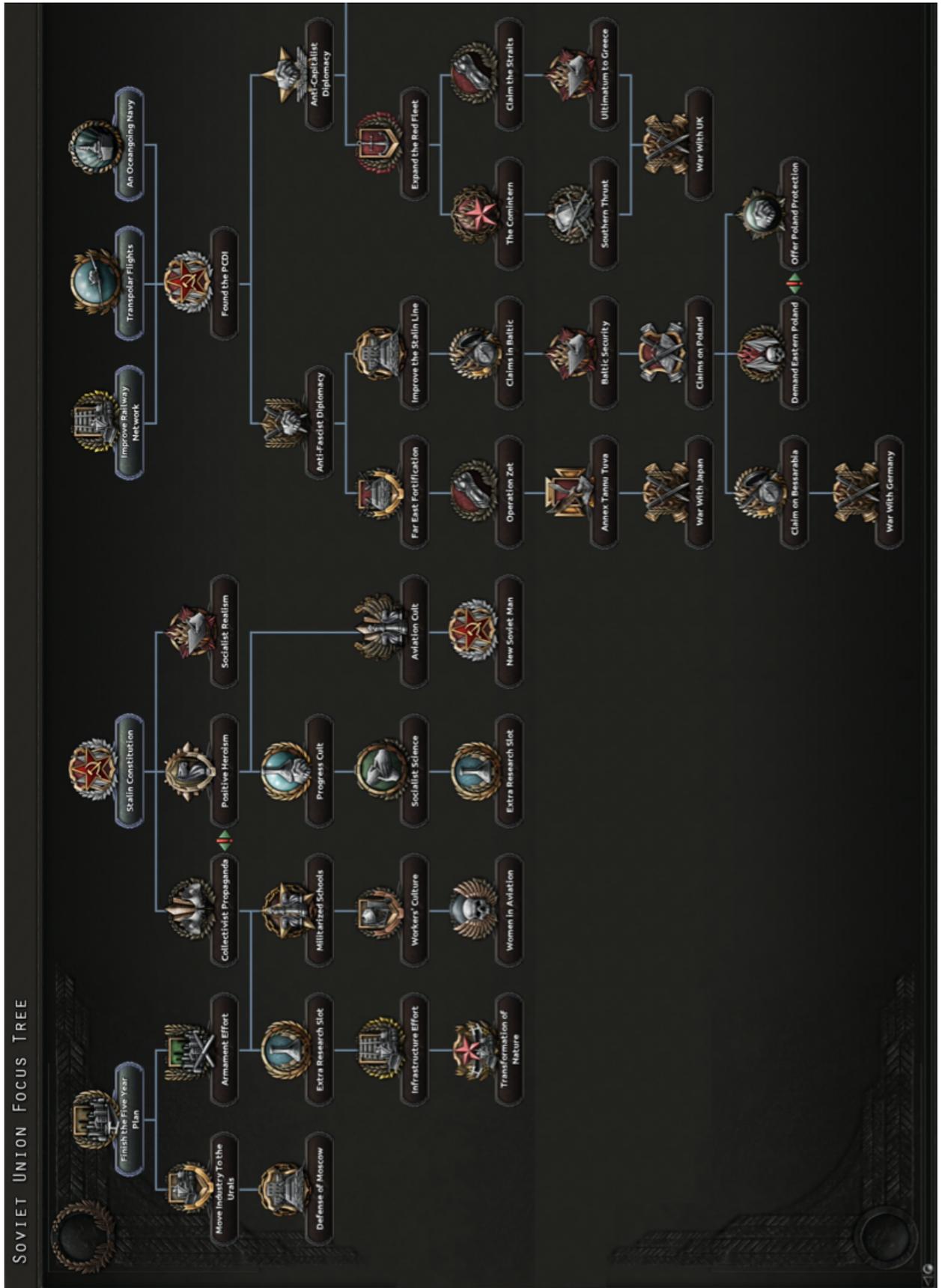


Figure 1: Screenshot of the Soviet Union NFT in *HoIIV*.

Research Questions and Ambitions

By exploring historical representations of the mid-to-late 1930s within the NFTs, this interdisciplinary thesis understands how *HoIIV* and its related paratexts disseminate curated discourses concerning the origins of the Second World War. This thesis will examine the NFTs of three nations: the German Reich, Soviet Union, and United Kingdom. These nations have been selected as they each lead a historical faction (DeadHeat16, 2020). The German Reich lead the Axis; the Soviet Union lead the Communist International: known in-game as the Comintern; the United Kingdom lead the democratic Allies (ibid). *HoIIV* places historical and computational significance on these nations as faction leaders. Due to the game's own naming conventions, the thesis will use these titles. However, it will also employ commonly accepted designations such as Germany, Russia, or Britain.

The thesis is guided by three research questions:

1. What is 'authentic-lite rhetoric'? And how is it produced by developer-curators through the NFTs in *HoIIV*?
2. How are partial and curated historical interpretations of the origins of the Second World War visibly disseminated by the NFTs?
3. How can historians and historical game studies scholars establish a framework to explore computational game systems and text without play or access to digital games?

These questions intersect throughout the research. However, they need to be placed in context. Historical game studies scholar Adam Chapman (2016, p. 59) states that some digital games "make us feel like we witness the past". Popular titles such as *Call of Duty: 2* (Infinity Ward, 2005) or *Medal of Honor: Frontline* (EA Los Angeles, 2002) perform this notion as "realist simulations" that convey the Second World War through cinematic detail and first-person perspectives (Chapman, 2016, p. 61). In contrast, *HoIIV* presents history through alternative means, allowing players to "participate in their argument about the past" (ibid, p.

59). The game is a “conceptual simulation” that abstracts history into systems and processes (ibid, p. 70). Through computation and text, the NFTs characterise the origins of the Second World War as the prehistory of an inevitable conflict. Ultimately, this thesis interrogates the innate historical tensions and interpretations produced by a curated construction of the past.

Through the convergence between computation and text, *Holliv*'s NFTs produce visible expressions of ‘authentic-lite rhetoric’. This term is an appropriation and amalgamation of two concepts within the broad school of game studies: ‘authenticity-lite’ (Kempshall, 2015, p. 7) and ‘procedural rhetoric’ (Bogost, 2007, p. 3). Authentic-lite rhetoric describes the unique historical interpretations made by a combination, or collision, of a digital game’s designed computational processes and its visual or textual components. The term accounts for the direct content of historical rhetoric produced by a digital game and its paratexts, and the exterior circumstances and realities surrounding contemporary commercial historical game production. The thesis demonstrates how authentic-lite rhetoric can be identified, and how the term provides an alternative perspective for understanding how digital games curate, construct, repackage, and reinterpret history through divergent systemic and textual approaches.

Chapman (2016, p. 15) argues that game developers working on historical titles should be called “developer-historians”. This term emphasises their role through incorporating evidenced data into games to produce historical meaning (Chapman, 2013, p. 319). The thesis builds on this concept, recognising developer-historians also as ‘developer-curators’ who curate and design history through a pragmatic understanding of game development and the expectations of their audience. It has long been recognised that historians edit, collate, and curate, primary sources into historical narratives; a historian “takes them home and cooks and serves them on whatever style appeals” (Carr, 2001, p. 3). Similarly, through Chapman’s (2016, p. 15) nomenclature, developer-historians are also selective in choosing the contents of their historical narratives (Salvati and Bullinger, 2013, p. 154). Yet, in this thesis’s alternative conception of developers as developer-curators, emphasis is placed

directly on the curation and editorialisation of a considerable wealth of secondary sources on a historical period into a digital game system. Consequently, the NFT's perspective on the origins of the Second World War is set by the developer-curators' understanding of recognisable historical narratives propelled by popular histories.

It is worth briefly reflecting on a definition of 'popular history'. The parameters of popular history are ill-defined (Beik, 1993, p. 207). At its most straightforward, works of popular history are produced in order to be consumed by a broad audience of non-specialists (Norton, 2013). Often, this work is narratively driven and possesses less technical analysis than academic history writing. These works can be borne from a diverse range of cultural products, such as podcasts, online videos, films, or videogames, and popular history books seek to make history accessible and contemporarily relevant so it can be read by millions of people (Harrison, 2015). Authorship is also a significant, if also ill-defined, factor in determining a work of popular history. Many works of popular history are produced by historians without a professional affiliation to an academic institution. However, within the contemporary period, professional historians also produce popular histories, marking blurring boundaries between the academic arena and public discourses (De Groot, 2016, p. 14).

This thesis considers that popular histories can be produced by non-official or un-institutionalised historians as well as recognised professional historians (*ibid*). In practice, the thesis adopts a definition of popular history through a literary scope as literature and research that is "intended to entertain and instruct the mass audience of non-specialists" (Trask, 1985, p. 79). Through the dual prisms of entertainment and instruction, this definition sees popular history as both an entertainment and as a valid venue to discover historical knowledge. This understanding also takes a broad perspective on the authorship of popular history as containing a wealth of accessible history that is predominantly produced for a general audience by both non-academic writers and professional academic historians (De Groot, 2016, pp. 13-15; Williams, 2019). Aiding this definitional

perspective, there is a colossal body of accessible history produced on the origins of the Second World War (Adamthwaite, 2011; Addison, 2011; Cowling, 1975; Dutton, 2001; Evans, 2005; 2009; Kershaw, 1983; 2008; 2010; 2015; 2016; McDonough, 2011; Roberts, 2009; Taylor, 1964; 1991). This literature is mostly dominated by professional historians who reproduce meticulous research and present these arguments, interpretations, and narratives to a wide audience. Consequently, regardless of their author, these works collectively contribute to a presentation of the epoch through narratives of significant historical events in order to entertain and educate a mass audience. Popular history literature is crucial to understanding authentic-lite rhetoric. *Holliv*'s developer-curators reperform and reproduce well-regarded historical narratives through the NFTs and the game's wider systems and texts, producing interpretations that are constructed through identifiable and public-facing historical narratives known to a broad audience.

It is also useful to briefly consider the notion of public history and its relationship with popular history within the thesis. Arnita Jones (2018) argues that public history was created in the United States in the 1970s. Yet, for the first four decades of its inception, the academic field of public history functioned without an "identifiable textbook" (Conrad, 2018, p. 115). Public historians are still searching for clarity and certainty surrounding the definitional boundaries of public history (Dean and Etges, 2018, p. 1). In part, linguistic and national boundaries play a significant role in the uncertainties of forming any universal definition (ibid). Attempting to present a definition, the National Council on Public History (2021) argue that public history is "history applied to real-world issues", conceiving that public history practitioners work as "historical consultants, museum professionals, government historians, archivists, oral historians, cultural resource managers, curators, film and media producers". Conversely, in an online discussion on public history, Thomas Cauvin (Public History, 2020) argues that there is no one single approach or definition to public history. Nevertheless, Cauvin offers a tentative definition of public history as doing history with a public perspective; the practice of studying and analysing the past for a large, non-academic, public audience (ibid). Ludmilla Jordanova (2019) identifies the notion of genre as significant to understanding public history.

Through works of historical fiction, film, magazines, and others, public history is seen as a wider collection of material that is intended for a mass audience (ibid, pp. 167-196). Jordanova (2010, p. 217) sets public history as work which makes “the histories of specific topics...compelling to the public”. In this specific sense, the ambition of producing history for consumption by a broad audience of non-specialist is significantly shared outcome of both public history and popular history. David Dean and Andreas Etges (2018, 1) suggest that the notion of “public”, or the “many different publics that serve both as audience for historical representations or who are engaged in the making of them” is of central importance to the discipline. This view of different publics engaged in history does definitively separate the notion of public history from popular history. Therefore, regardless of its definitional opacity, it is important to distinguish that public history and popular history are two separate strands of literature which possess a similar ambition of outcome rather than process.

The thesis demonstrates a methodological framework that explores historical perspectives within digital games without utilising play. Following studies within game preservation scholarship that acknowledge the innate instability and legal fragility of continuing to access digital games (Newman, 2012), the thesis undertakes a methodological experiment of exploring a videogame without utilising play as a primary analytical focus. This experiment is situated in attempting to answer this question: how are historians of digital games expected to understand the medium if they cannot play it? This question is particularly pertinent when examining older digital games that are not immediately available for purchase on contemporary gaming systems (GDC, 2016; 2019) This question is also formative for how game preservation continues into the twenty-first century; there is currently no structural or systemic way for games to be preserved (Simons, 2021, p. 74). For Esther Wright (2017; 2018; 2019), paratexts are crucial sources that can formulate an understanding of how history is performed and compromised by the medium. Paratextual sources, such as advertisements and online videos and databases, are supplementary materials that elucidate upon a digital game whilst existing outside of the game (Barker, 2017). The thesis follows this analysis through its

methodological focus on specific paratexts; HOI4 Wiki, an online encyclopedia for *HoIIV*, is demonstrated to be a significant artefact and expressor of its curated historical interpretations. HOI4 Wiki is a comprehensive archival footprint of the game that is moderated and maintained by both players and developer-curators. It contains almost all information related to *HoIIV*, including textual and computational information directly associated to the NFTs, and data and text found in developer diaries and patch notes. Consequently, details that could otherwise only be found in-game can be openly accessed online through HOI4 Wiki, bypassing the need to play the game. This is an important consideration when set against the mass disappearance of digital games and urgent game preservation initiatives (Newman, 2012). The thesis utilises the HOI4 Wiki as a dominant source base for examining *HoIIV*'s NFTs, allowing for a reliable and detailed consideration of how they convey curated representations of history in the mid-to-late-1930s and produce expressions of authentic-lite rhetoric.

Thesis Framework

The structure of this thesis is designed to contextualise a selective range of unique methodological approaches before utilising them within three thematic case studies. The research that is foregrounded in the first three chapters creates an approach which elucidates upon the deliberately designed and curated historical interpretations of diplomacy, industry, and politics within *HoIIV*'s NFTs.

Chapter 2 serves as a contextual introduction to *HoIIV* and its NFTs. The chapter understands how the title functions as a conceptually complex simulation and as a commercial product. Through a comprehensive suite of exterior digital game and historical influences, *HoIIV* forms an abstraction of conflict, history, and politics. Within the dual necessities of commercial practice and delivering historical entertainment to players, the game's curated interpretations of the Second World War fluctuate and remain inconsistent. The chapter demonstrates how the NFTs are integral to *HoIIV*'s conception of history, operating simultaneously as a system

of statistical progression and a curated representation of historical development. The NFTs are understood as an overlooked form of technology tree that has historical antecedents in tabletop and digital games. However, they are also a structure that disseminates a historically determinist view of the Second World War. This expression of the past is manufactured through the developer-curators understanding of the epoch as national preparation for an inevitable global war. In this tension between game design and historical representation, unique expressions of authentic-lite rhetoric are produced by the NFTs.

In chapter 3, the thesis undertakes a review of the current literature, demonstrating that *HoIIV* is largely unnoticed by historical and game studies scholarship. However, there is a wealth of literature that is adjacent to the interdisciplinary research ambitions of the thesis. The review situates the thesis within the recent establishment of formal historical game studies scholarship. The arguments of the thesis will also be understood through the depth of popular historical research conducted on the origins of the Second World War. Finally, the review will contextualise and define the terms ‘developer-curator’ and ‘authentic-lite rhetoric’ by placing their interdisciplinary origins within current scholarship.

In chapter 4, the thesis identifies its interdisciplinary methodology. A diverse range of complementary methodologies from historical study and game studies scholarship are employed to effectively explore the NFTs. Within current game studies scholarship, technology trees are understood as computational systems of meaning that express historical causality. The thesis utilises these understandings to discuss the NFT’s curated expressions of historical progression through the epoch. However, the methodology is also significantly underpinned by paratextual sources. HOI4 Wiki, a comprehensive archival document of *HoIIV*, represents a significant outlet for information on the NFTs. Taking the thesis as a methodological and analytical thought experiment, HOI4 Wiki allows the thesis to undertake a study of *HoIIV*’s content that is not primarily reliant on direct access. Recognising that the function of play is not required in order to understand a digital game is a

core tenet of the thesis. Utilising methodological approaches from urgent work within game preservation studies, the thesis employs supplementary paratexts to explore expressions of authentic-lite rhetoric within the NFTs. This interdisciplinary collection of relevant methodologies establishes the thesis's unique perspective on approaching an underrepresented digital game.

The previous chapters provide a contextual and methodological foundation that allow the thesis to conduct three distinct, but interrelated, explorations of political, economic, and ideological themes within *HolIV*'s NFTs. Chapter 5 outlines how the developer-curators interpret the aggressive territorial reclamation and expansion of the German Reich. Through a sequence of landmark events that are chained together on the nation's NFT – the 1936 remilitarisation of the Rhineland, the 1938 Anschluss of Austria, and the 1938 annexation of the Czechoslovakian Sudetenland – *HolIV* argues that the Second World War was directly caused by Germany. This view is built upon popular historical narratives that discuss Adolf Hitler's responsibility for the conflict (Ripsman and Levy, 2008, p. 148). Through its primary position on the NFT, the remilitarisation of the Rhineland on 7 March 1936 is interpreted as a defining geopolitical moment that set a course towards an inevitable global conflict. Considering historical precedents for the industrial and political significance of the region during the nineteenth century and the interwar period, *HolIV* textually illustrates that military control of the Rhineland was a strategic necessity for Germany's territorial ambitions. In contrast, British and French diplomatic inaction over the remilitarisation is understood by the NFTs as a consequence of the innate political weaknesses of democracies.

Chapter 5 also considers the NFT's systemic and textual representations of the Anschluss of Austria. The event is given a reductive representation as a bloodless act of national self-determinism. The game does not offer any textual discussions or references to popular dissent against violent domestic tactics employed by Austrian Nazis, and the political leverage imposed by the German Reich. In contrast, the annexation of the Czechoslovakian Sudetenland is portrayed as a significant

geopolitical territorial change. Germany's NFT echoes narratives of a unification of a territory held by a German-speaking majority. In contrast, the system processes associated to the Czechoslovakian NFT demonstrate the proud industrial capability of the region. Collectively, the NFTs characterise British Prime Minister Neville Chamberlain's policy of appeasement as weak diplomacy; almost all systemic outcomes of Germany attempting to annex the Sudetenland through the NFTs are programmed to be successful. These systemic and textual curations of history produce an authentic-lite rhetoric that situates the geopolitical acts of the German Reich as planned provocations against the 1919 Treaty of Versailles that are ultimately designed to cause the Second World War.

In chapter 6, the thesis explores economic and industrial expressions of authentic-lite rhetoric. The chapter first considers how the NFTs convey economic and industrial planning. The industrial portion of the Soviet Union's NFT is a systemic representation of the Five-Year Plan; a series of economic and industrial programmes mandated by the government (Harrison, 2006, p. 1097). Both *HoIIV*'s game system and text understate the societal impact of the Five-Year Plan within the NFTs, illustrating an ahistorical view that the programmes were modest political and industrial successes. In contrast, different stages of German economic and industrial planning are comprehensively detailed through its NFT; the focuses on the nation's industrial branch coincide with historical narratives of constant economic progression during the decade, especially through recognised economic schemes such as MEFO bills.

Through chapter 6's consideration of economic and industrial self-sufficiency, the German NFT conveys authentic-lite rhetoric that positions the national development of synthetic fuel as successful. This view is contested by historical scholarship, indicating a point within *HoIIV* where system processes and computation are preferred over a representation of historical accuracy. In contrast, the Soviet Union NFT's representation of industry in the Urals argues that shifting industrial production to a different geographical region was a political necessity that offered little change in industrial progress. The developer-curators characterise

British economic and industrial self-sufficiency predominantly through the perspective of the British Empire. In the absence of a comprehensive global trading system, the United Kingdom NFT includes focuses that model the self-sufficiency of a bloc of nations connected by the Empire through infrastructural and military improvements to British dominions and colonies. On rearmament, the NFTs illustrate a simple historical argument set within popular narratives of the epoch; while democratic nations were institutionally immobile and slow to rearm, dynamic and youthful totalitarian states were economically and industrially able to swiftly rearm across the decade in order to facilitate a global conflict between old and new ideology.

Chapter 7 explores how the German Reich, Soviet Union, and United Kingdom NFTs depict political ideology. *HoIV* follows post-war conceptions of Germany and the Soviet Union as similar totalitarian states. Despite existing within separate in-game 'fascist' and 'communist' ideologies, the similar wealth of diplomatic actions available to both nations demonstrates a developer-curator perspective that they held similar goals of aggressive expansion and political power. The Soviet Union are given focuses that enable the nation to subsume smaller states instantly, and the NFT's reductive depiction of the Great Purges allows Josef Stalin to consolidate his political position and reform the military towards an unquestionable loyalty to the leader. *HoIV* does not illustrate the societal effects of the purges on the nation. By considering how the NFTs express the economic power of totalitarian nations, German public works such as the autobahn are understood for their military and ideological benefits. In contrast, democracy is viewed in-game as a weak political ideology. Democratic nations cannot access the same diplomatic and political actions as Germany or the Soviet Union. Only later focuses on the British NFT illustrate a mass mobilisation of the nation towards a conflict that is instigated by the warmongering political ideologies of totalitarian nations. Through examining the Canadian NFT as associated to the British NFT, the thesis illustrates how the political ideology of democracy is alternatively understood as a potent force of industrial and economic progression.

Across three substantial chapters, the thesis will conclude that multiple distinct expressions of curated authentic-lite rhetoric exist within the NFTs of *HoIIV*. The thesis argues that using HOI4 Wiki to understand the contents of the NFTs offers a significant way for scholars to view and understand digital games more broadly. Through HOI4 Wiki, the NFT's political, industrial, and ideological interpretations convey a broad argument about the inevitability of war. Firstly, the NFTs systemically and textually express that the mid-to-late 1930s were a passage of time towards an inevitable global conflict. The historical textual descriptions and computational outcomes of enacting specific historical focuses consistently bring the player ever closer to a conflict (Goodfellow, 2016, p. 3). There is no opportunity to defuse political tensions away from a military conflict. This is an expression of authentic-lite rhetoric that is inspired by popular historical narratives of the epoch and a practical consideration for audience expectations of 'historical' games. *HoIIV*'s NFTs present a fractious period of history where totalitarian regimes are bluntly viewed as effective in preparing and waging war. Totalitarian nations are regimes of political, military, and industrial dynamism. In contrast, the NFTs characterise democracies as weak regimes burdened by bureaucracy. Through these curated expressions of history in the NFTs, the developer-curators portray the epoch as the prehistory of an inevitable military clash between political ideologies.

Through the notion of authentic-lite rhetoric, developer-curators, and the significant use of HOI4 Wiki, the thesis offers alternative perspectives on how curated representations of history are produced in digital games. Within a complex digital system of historical representation that is also influenced by pragmatic business and digital game development expectations, authentic-lite rhetoric understands digital games as sources of historical and ahistorical expression. The thesis presents *HoIIV*'s NFTs and HOI4 Wiki as significant sites of potential historical study; engines of causality that project a partial and curated view of how history developed during the late-1930s.

Chapter 2: *Hearts of Iron IV* and the NFTs: An Overview

In order to understand authentic-lite rhetoric, it is necessary to identify *HoiIV* and the NFTs within a broader context. Firstly, the chapter will introduce *HoiIV*, outline core gameplay experiences, and discuss its association to Paradox Development Studios (PDS). The game will also be identified through genre. Although *HoiIV* makes allusions to wargaming through its visuals and mechanics, the expanded range of player action delineates the game as an experience more comparable to digital strategy titles such as *Sid Meier's Civilization* (MicroProse, 1991) (*SMC*). The chapter will outline how *HoiIV* has evolved. With the release of new content, the game's perspective of epoch is significantly reimaged and reinterpreted. This section will outline how differing versions of *HoiIV* over a twenty-one-month period will be referenced. The chapter will situate the NFTs as a significant object of study. The NFT's utility within the simulation is contextualised as a functional game mechanic that inherits its form through technology trees found in both tabletop games and digital strategy games. Finally, the chapter will examine historical development as a foundational element of the NFTs. The thesis will argue that there is significant tension between abstract considerations of history as an undetermined phenomenon, and the argument proliferated within the NFTs that the passage of time through the 1930s can be formatted as a predetermined progression towards an inevitable conflict.

Introducing *Hearts of Iron IV*

HoiIV is a game about the Second World War. Its release date of 6 June 2016, the 72nd anniversary of the Allied D-Day landings in Normandy, reinforces this subject matter (Frank, 2016). The game is available through online storefronts for Apple, Linux, and Microsoft computer systems. The player's objective is to manage the military, political, diplomatic, and economic affairs of a nation between 1936 and 1948 to "control areas of a map interface" (Hailes, 2019). *HoiIV* has a global perspective, with a map of the world as its user interface. The player is encouraged

by the game's online advertisements to pursue victory (Steam, 2016). However, as has been opined on social media, surviving the epoch is considered an achievement (NicodemusV, 2018).

The player begins a campaign with the choice of two starting dates: 1 January 1936 and 14 August 1939. This choice provides two distinctive experiences. While the 1939 scenario locks the player into a historical war, with Germany preparing to invade Poland, the 1936 scenario allows players to prepare for a conflict that bears "only a passing resemblance to the one we know" (Goodfellow, 2016, p. 3) (Figure 2). This statement is significant, highlighting *HoIIV's* emphasis on simulating alternative histories (Grufstedt, 2020). In part, the game functions as a historical 'choose your own adventure'; an opportunity to experiment with 'what-if' scenarios through history (Chapman, 2016, pp. 231-232). However, this thesis does not examine expressions of counterfactual history. Instead, it explores how the *HoIIV's* curated historical interpretations of the origins of the Second World War are disseminated through the NFTs.



Figure 2: The world map menu on the 1936 start date, displaying political territories.

HoIV is published by Paradox Interactive, based in Sweden. The developer of the game is Paradox Development Studios (PDS), an in-house development team of Paradox Interactive. PDS primarily develop digital historical strategy games, such as *Crusader Kings II* (Paradox Development Studios, v. 1.02b, 2012) (*CKII*) and *Europa Universalis IV* (Paradox Development Studios, v. 1.1, 2013) (*EU*) (Baker, 2016; Brown, 2017; McCarthy, 2019). Due to the symbiotic relationship between developer and publisher, the research will consistently refer to PDS.

HoIV is the fourth iteration of the series. *Hearts of Iron* (Paradox Development Studios, v. 1.0, 2002) (*HoI*) was published on 24 November 2002, receiving mixed reviews that criticised its technical instability (GOG, 2015; Osborne, 2002). *Hearts of Iron II* (Paradox Development Studios, v. 1.1, 2005) (*HoII*) was released on 4 January 2005, while *Hearts of Iron III* (Paradox Development Studios, v. 1.1, 2009) (*HoIII*) followed on 7 August 2009; both titles were seen as mechanical improvements on previous iterations (Butts, 2005; McCormick, 2009; Todd, 2005; 2009). *HoIV* is a critically acclaimed financial success; in less than two weeks after release the game had sold over 200,000 copies, making it the “publisher’s fastest-selling historical strategy game” (Hafer, 2016; Hall, 2016; Plunkett, 2016; Zacny, 2016; Paradox Interactive, 2016a). By 2019, *HoIV* had sold over two million copies (Paradox Interactive, 2017; 2018; Valentine, 2018; ParadoxInteractive, 2019). PDS operate within a niche market (Dean, 2013). *HoIII* was the company’s first commercial success, selling over 80,000 copies in the United States (Aziz, 2014). However, recent titles such as *CKII* and *EUIV* have become more popular (Steam, 2019). Ylva Grufstedt (2020, p. 87) argues that PDS titles have become popular and accessible to a wider audience. This argument is reinforced by Johan Andersson, who identifies PDS games as “complex, but not complicated” (Hall, 2013). In *HoIV*’s first development diary – a public announcement detailing progression through development – the game’s creative director Dan Lind states that it will be “much more streamlined and easier to learn” (podcat, 2014). In these perspectives, the game’s historical interpretations are deliberately curated for an expanded range of players who may have little previous experience with digital strategy games.

***Hearts of Iron IV* by Genre**

Through online advertisements, *HoIIV* is described as a grand strategy wargame (Steam 2016; Solsys, 2019d). A similar claim is made within the 'Advanced Guide for Beginners' manual made by the developer-curators:

"Hearts of Iron has a much greater emphasis on military matters...You acquire new weapons through factories. Money is irrelevant. Trade is highly abstracted and focused on specific materials. Your population exists not to be taxed, but to be given a gun and a mission. Diplomacy is a blunt instrument to pull someone close to your side or push them into war. *Hearts of Iron's* focus on military matters, especially the act of war itself...makes it closer to a traditional wargame than a grand strategy game in many respects" (Goodfellow, 2016, p. 3).

This characterisation differentiates the game from cinematic experiences of Second World War, reinforcing it as a conceptual simulation of abstracted statistics (Chapman, 2016, p. 61, p. 70; Ramsay, 2015, pp. 94-95). Yet, the statement is also contradictory. *HoIIV* should not be solely understood as a wargame. NATO defines wargaming as a "simulation of military operation, by whatever means, using specific rules, data, methods and procedures" (Ministry of Defence, 2017, p. 5). However, Peter Perla's (1990, p. 274) conception of wargaming as a "model or simulation, using rules, data, and procedures, not involving actual military forces...in which the flow of events is affected by...players representing the opposing sides" is a significant contribution that will be utilised by the thesis. Therefore, while Troy Goodfellow (2016, p. 3) argues that *HoIIV* is "closer to a traditional wargame", his argument also alludes to a comprehensive suite of player action, such as controlling trade, politics, and diplomacy, that wholly distinguish the gameplay experience from a simple "warfare model or simulation" (Perla, 1990, p. 274).

However, *HoIIV* makes visual and mechanical references to professional and amateur tabletop wargaming. During a campaign the player can create battle plans, a significant component of preparing for combat that involves designating front

lines and co-ordinating defensive tactics (Figure 3). The results of in-game skirmishes, abstracted into a number differentiating how competing units clash in the same geographical area, are determined by a hidden equation combining chance, the quality and quantity of the engaging forces, and the terrain they are fighting on. This combat design intentionally invokes imagery of military generals enacting tabletop wargames, referring to the origins of professional wargaming in Prussia during the late eighteenth century (Dunnigan, 1992, p. 146; Kriz, 2017, p. 587; Orišek and Schwarz, 2016, p. 10; Peterson, 2016, p. 5). The Prussian armed forces codified a distinct form of strategic wargaming, reinforcing its usefulness for military planning across the nineteenth century (Askey, 2013, p. 4; Kostlbauer, 2013, p. 173; Liddell Hart, 1997, pp. 29-30; Perla, 1990, p. 26). By allowing the player to plan military operations across the map, *HoIIV* systemically illustrates a transient relationship with professional wargaming.



Figure 3: German Reich offensive and defensive lines against the Soviet Union. The three coloured arrows represent offensive lines for different divisions. The blue defensive line can be seen across the centre of the screen from top to bottom.

HoIIV also derives some influence from amateur commercial wargames. The metal border surrounding the in-game map is indicative of stylised tabletop game borders

(Figure 2). While H.G. Wells' (1915) *Little Wars* is seen as the genus of amateur wargaming, companies such as Avalon Hill facilitated the popularity of the pursuit during the twentieth century (De Groot, 2016, p. 311; Timpson, 2013; Deterding, 2010, p. 26). *HolIV* is directly inspired by foundational board games such as *Axis and Allies* (Harris, 1981), which also depict the Second World War on a global scale with a map interface (Pennington, 2018). Although *HolIV* does not fit neatly into an accepted definition of a wargame, it does express open influences from amateur tabletop wargaming.

Defining the title more firmly within genre, *HolIV* can be categorised as a historical digital grand strategy game (Abner, 2005, p. 11; Dor, 2018). There are definitional variations of 'grand strategy' (Brands, 2012, p. 1; Lissner, 2018, p. 54). Political scholars understand the concept through contemporary planning of national security (Posen, 2014, p. 1; Taylor, 2010a, p. 4). However, this thesis defines 'grand strategy' as the integration of interests, threats, resources, and policies in a conceptual framework that helps nations "determine where they want to go and how they ought to get there" (Brands, 2014, p. 3). This definition presents *HolIV* through the plurality of possible in-game actions that are performed during a campaign (Goodfellow, 2016, p. 3). This perspective is reinforced by Lind, arguing that players "run the whole country: diplomacy, production...research" (Pennington, 2018). This abstraction differentiates *HolIV* from strategy games such as *Total War: Rome II* (Creative Assembly, 2013) and *Company of Heroes 2* (Relic Entertainment, 2013). These games -enact 3D historical battles and allow the player to coordinate specific troop movement on a more intimate scale than *HolIV*'s global abstraction of war (Dor, 2018; Goodfellow, 2008; Senior, 2013; De Groot, 2016, pp. 154-155).

The *Hol* series has been described as the "the 'original' grand strategy PC game" (Renaud, 2016). This is a bold, but unfounded claim. *HolIV* has antecedents in digital Japanese titles released in the 1980s, such as *Romance of the Three Kingdoms* (Koei, 1985) (*RotTK*). Inspired by Luo Guanzhong's fourteenth century epic *Three Kingdoms*, in *RotTK* the player adopts a top-down view of China, controlling armies

to conquer the Central Plain (Brown, 2018; Kwon, 2013, p. 124). *RotTK* gives the player control over an abstraction of diplomatic, military, and political policy. *HolIV*'s concept of abstracted control is similar to the *SMC* series, where the player operates as the de-facto leader of a 'civilization' in prehistory and guides them through history to the future (Carr, 2007, p. 223-224; Chapman, 2013, pp. 313-314). This position of executive power is replicated in *HolIV*; the player controls the nation's industrial, political, economic, and diplomatic policy. This abstraction of leadership through the Second World War, controlling all policies and engaging in statistical logistical management to determine the nation's destiny, distinguishes *HolIV* as a 'grand strategy' digital game (Brands, 2014, p. 3).

Changes to *Hearts of Iron IV*

HolIV is an instable digital object that has constantly evolved since release. This instability is a dominant characteristic of the commercial model through which PDS titles are sold. The company's games are available through online digital distribution platforms, and this practice allows players to make purchases and install and download games instantly (Hall, 2013; Mereu et al, 2013, pp. 38-40). This process also allows the development and sale of supplemental downloadable content (DLC) that players can acquire after the initial purchase of a digital game. DLC commonly takes the form of expansions that cannot be used without original software (Hall and Novak, 2013, p. 85; Papworth, 2008, p. 18).

PDS is financially sustained through a programme of releasing supplemental DLC packs. Following the base game of *HolIV*, six DLC expansions have been released. The first expansion pack, *Together for Victory* (Paradox Development Studios, v. 1.3, 2016), was released on 15 December 2016 and focused on nations within the British Empire (Steam, 2016a). These nations were given unique NFTs comprising of historical and ahistorical focuses, so that players could "stay loyal to Great Britain, or forge a new, more independent destiny" (ibid). This DLC established the blueprint for new content. *Death or Dishonor* (Paradox Development Studio, v. 1.4, 2017) was released 14 June 2017, providing bespoke NFTs for Hungary, Romania,

and Yugoslavia (Steam, 2017). The third DLC pack, *Waking the Tiger* (Paradox Development Studios, v. 1.5, 2018), was released on 8 March 2018 and was advertised as an overhaul of Asian nations (Steam, 2018). China's position in the conflict was completely refurbished, with minor Chinese factions and Communist China given unique NFTs (AkatsukiEmpire, 2018; 2018a). The fourth and fifth expansions, *Man the Guns* (Paradox Development Studios, v. 1.6, 2019) and *La Résistance* (Paradox Development Studios, v. 1.9, 2020), were released on 28 February 2019 and 25 February 2020 respectively. *Man the Guns* provided two ahistorical branches for the United Kingdom and United States NFTs (Steam 2019a). In contrast, *La Résistance* added an espionage system game and overhauled France's NFT, adding the ability to continue a campaign as Free France or Vichy France (Steam, 2020). The sixth expansion, *Battle for the Bosphorus* (Paradox Development Studios, v. 1.10, 2020), was released on 15 October 2020 and created dedicated NFTs for Greece, Turkey, and Bulgaria (Steam, 2020a).

The DLC expansions are not the game's only changes. A number of patches and hotfixes, instances whereby developer-curators fix bugs and rebalance game mechanics, have been implemented across the title's lifespan. As of 15 October 2020, the game's patches are numbered from 1.0-1.10. The changes included within patches and updates constitute a fundamental shift in how the game functions. With every patch, *HolIV*'s historical content is permanently altered. Through this process, game mechanics that were once central to the original game are removed. For instance, the 'National Unity' modifier, a base game mechanic indicating the 'political unity' of a nation and representing a statistic computationally tied to how well troops can perform in combat, was replaced in the *Waking the Tiger* expansion by 'Stability', a statistic reflecting the population's support for the government (Zaubereleafant, 2020a). Over time, as *HolIV* has existed as a commercially available product, DLC expansions, hotfixes, and patches have greatly impacted on how the game mechanically disseminates curated perspectives of history.

This gradual release of content has significant consequences for how the thesis references *HoIIV*. Different iterations of the game include, or exclude, historical representations. The thesis explores *HoIIV* between its 2016 release until 2018's *Waking the Tiger* expansion, also known as version 1.5 (Dauth, 2018). While the game's different versions are identifiable by a long sequence of numbers – the original release of *HoIIV* is coded as version v1.0.0.19987 – the thesis will utilise condensed numbers, such as version 1.0 or version 1.5. In identifying a twenty-one-month timeframe, the research can examine the longevity of the NFT's curated historical claims. Furthermore, although the game is an elusive and instable digital object, across the first twenty-one months of its public existence, its core gameplay mechanics and historical intentions remain broadly similar. As a consequence, significant changes made to *HoIIV* in subsequent iterations will not be explored. The philosophical position of the thesis on not playing *HoIIV* as a primary methodological analysis is discussed in chapter 4. Yet, the identification of a fixed time period of studying *HoIIV* through specific versions that are no longer immediately available for public consumption alludes strongly to the complexities in how accessing a digital game does not necessarily mean that scholars are often engaged in discussing or analysing the same game (Newman, 2019). Future research could potentially explore the changing historical interpretations embedded into the NFTs in later instalments.

The thesis must also reference *HoIIV*'s different versions cohesively. There is no universally accepted approach for referencing digital games (Gualeni, Fassone and Linderoth, 2019; Stenros, 2017). Identifying a common reference system is complicated by practical issues over authorship. Digital games are often created by a large collection of people; some academic referencing omits the authors of a digital game, while other methods do not consider different versions (Whalen, 2012, p. 73). The thesis considers the impact of current referencing and citational practice in the 'Notes on the Bibliography' section. A persuasive approach to referencing digital games can be seen through the "dual canon" concept, which asks the scholar to make a subjective decision on the relevance of authorship of a

digital game (Gualeni, Fassone and Linderoth, 2019). If an author can be identified, scholars should reference digital games through the following method:

“RECOGNIZABLE AUTHORSHIP STYLE: Author. (Version, Year) [Year of original release if different]. Title [Platform]. Digital game developed by developer, published by publisher” (ibid).

For digital games that do not possess a distinct author, or games for which an author cannot be discerned, the reference should proceed as follows:

“DISTRIBUTED AUTHORSHIP STYLE: Developer. (Version, Year) [Year of original release if different]. Title [Platform]. Digital game directed by director, published by publisher.” (ibid).

This referencing style is highly functional and will be utilised in the thesis. It directly identifies personnel connected to a digital game, and also recognises the significance of different versions. However, if the thesis references a digital game for broad comparative or textual purposes, determining its specific version will not be necessary. Therefore, in these occasional cases, the thesis will reference the initial public release of the title.

Identifying the NFTs

The NFTs are a crucial component of *HolIV*'s projection of history. The NFTs are vertical digital diagrams (Figure 1) that model historical development through an “interlocking branching structure” consisting of individual chained historical events, known as focuses (Ghys, 2012). The NFTs' branching pathways are divided into thematic sections. For instance, certain branches model scientific progression by including focuses that increase industrial output and reduce research speeds for new technologies (Goodfellow, 2016, p. 19). In contrast, the NFTs' model of political and diplomatic history can be seen in linked focuses that “reform or redirect your domestic politics or foreign policy” or “hasten certain game events, moving history along a familiar (or alternate) path” (ibid). These statements illustrate how the NFTs abstract industrial, political, and diplomatic history into linked bundles of

interpretation. The NFTs are an identifiable site where *HoIIV* performs curated narratives of the origins of the Second World War. Historical and ahistorical outcomes are both openly programmed into the NFTs, encouraging the player to follow a historical trajectory or rewrite history. Exploring how ahistorical narratives are developed in *HoIIV* represents vital contemporary research (Grufstedt, 2020). In contrast, this thesis explores the NFT's overtly historical expressions of the epoch.

The NFTs are accessed by clicking on a bronze banner at the top of the political menu, found by clicking on an image of the nation's flag in the top left of the screen (Figure 4). Through a campaign, the player progresses towards one focus at a time, with each one costing 70 'Political Power' points, an abstracted in-game currency that "represents the amount of influence a country's leader has over domestic affairs" (ReAn, 2020). Each focus takes 70 in-game days to complete and produces benefits such as statistical improvements in army strength (unmerged(1823), 2015). Progress through the campaign is significantly impeded if players do not utilise the NFT (Goodfellow, 2016, p. 19). Online fan forum debates often centre on the most effective approach to completing or progressing through a nation's NFT (ILoveArchery, 2019; PrivateMajor, 2016; QuitBSing, 2019).



Figure 4: Screenshot of the Soviet Union campaign. The political menu is visible on the left side of the screen.

While every existing nation can access an NFT, not all nations possess a bespoke NFT consisting of unique historical or ahistorical events. In the game's initial release, seven nations labelled in-game as great powers, and Poland, had their own unique NFT: France, German Reich, Italy, Japan, Soviet Union, United Kingdom, United States (ReAn, 2020). However, between 2016 and the 2020 release of the *Battle for the Bosphorus* DLC, over twenty nations have been given unique NFTs (Steam, 2017; 2018; 2019; 2020; 2020a). The remaining nations are given a generic NFT with non-historical focuses that offer nominal statistical benefits. These changes reinforce the game's gradual evolution and also demonstrate how the portrayal of the epoch is deliberately curated. Through a selection of unique NFTs, histories of specific nations are more comprehensively represented in-game. This decision, made consciously by developer-curators, creates a history that is understood primarily through the perspective of 'significant' nations, such as the German Reich, Soviet Union, and United Kingdom. This significantly skews *HoIIV*'s representation of the epoch towards nations who hold a prominent position in the conflict through accepted historical understandings, relegating the importance of nations who do not possess their own NFT.

NFTs and the Legacy of Technology Trees

The NFTs are technology trees unique to *Holliv*, but they are not necessarily new. They are a distinct historical form of an established game mechanic. There is relatively little academic literature on technology trees (Ghys, 2012; Heinimaki, 2015; MacDougall, 2009; Owens, 2009). However, this small pool of research expresses similar definitional boundaries of technology trees as digital game structures that facilitate the progress and development from one technology to a better technology, enabling the player to create better facilities or more powerful units (Morris and Hartas, 2004, p. 141). Through this functional conception, the thesis understands the NFTs as evolutionary technology tree diagrams that simulate the progress of history (Heinimaki, 2015, p. 4).

Ghys (2012) determines that the origins of digital game technology trees can be situated in *Civilization* (Tresham, 1980), a 1980 tabletop strategy game designed by Francis Tresham. In the game, players develop ancient civilizations on a tabletop map of the Mediterranean and Anatolia (BoardGameGeek, 2001). Players improve their position by collecting sequential 'technology cards' that simulate a primitive form of technology tree, allowing players to advance between technologies from basic agriculture to metallurgy and roadbuilding (ibid, 2012). This form of technology tree system is indicative of the diverse ways in which they have been implemented into digital games. Across a variety of genres, different forms of technology tree offer players a chance to improve in-game statistics over time (Bates, 2004, p. 50). In the broadest sense, technology trees aid the development of a player through "skill trees, talent trees, perk trees, and other such structures" (Heinimaki, 2015, p. iii). For example, within 'The Journey', a single-player story campaign for *FIFA 17* (EA Vancouver, 2016), the player utilises skill points gained through training sessions to gradually improve their avatar's footballing ability.

Holliv's NFTs are a common iteration of a technology tree: a chained diagram of designed advancement that grants access to more sophisticated technology over time (Morris and Hartas, 2004, p. 141; MacDougal, 2009; Owens, 2009). The *SMC* series represents the most recognisable example of a digital game utilising a chained technology tree to simulate historical change. The series adapted Tresham's 'technology card' system into a digital context (Edwards, 2007; Heinimaki, 2015). For example, *Sid Meier's Civilization VI's* (Firaxis Games, 2016) (*SMCVI*) technology tree is a horizontal diagram of chained technologies, producing a particular fixed understanding of progress across history. *SMC's* technology tree has been characterised as both an algorithmic model of technological change, and an ideological interpretation of how technology has transformed and evolved across history (Chapman, 2013, p. 328; Galloway, 2006, pp. 102-103; Uricchio, 2005, p. 328). Through *SMCVI's* horizontal branches, chains of interpretation are produced in that directly link the development of bronze working to later innovations in iron working or currency to mathematics (Owens, 2009) (Figure 5). This chained design of technology is a persuasive argument created by *SMCVI's* developer-curators in order to disseminate their own perspectives of historical progression through game mechanics.

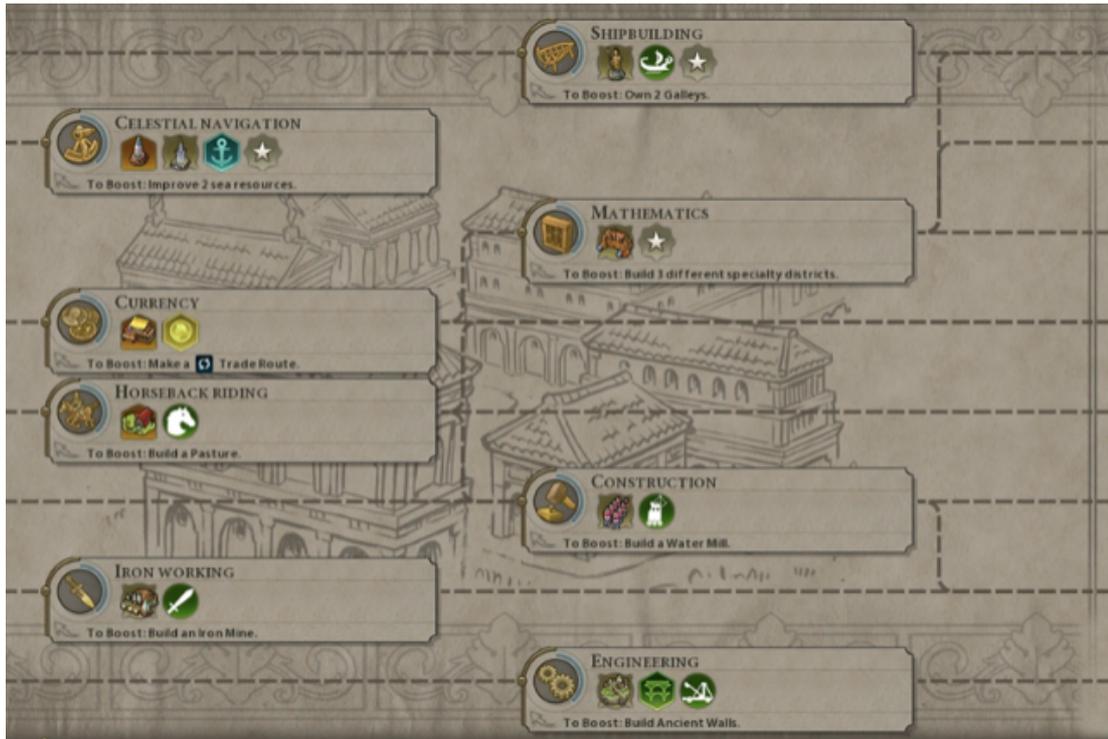


Figure 5: A portion of the technology tree in *Sid Meier's Civilization VI*.

Horizontal chained technology trees are also present within *HolIV's* systemic conception of military technology development. Clicking on the grey beaker symbol in the top left of the screen will open the 'Research' tab (Figure 4). This menu gives the player the option to research land, naval, and air technologies. Each category denotes a specific technology tree system; for example, the land category illustrates the development of infantry, artillery, and armoured vehicles (Figure 6). These systems model technological development, and although they do not strictly chart the progression of history through events and phenomena, they often intersect with *HolIV's* NFTs. By completing specific focuses on the NFT, the player is rewarded with a time-limited increase in the development speed of a specific weapon or military technology within a specific research technology tree.



Figure 6: A segment of the German Reich infantry technology tree.

The Historical Determinism of the NFTs

The NFTs are unique in-game structures that present a curated model of explicitly historical progression. They are ‘engines of causality’ that simultaneously enable player progression and visually determine set pathways through history. As a consequence, the NFTs are sites of tension between historical progression and game design conventions on the representations of the past. In this tension, historical determinism, partial judgements on how history has progressed, is produced, charting a definitive causal relationship between specific historical events (Waring, 2010, p. 283; Wells, 1958; p. 105). Expressions of historical determinism can be found throughout the wider simulation. For example, the seven major powers begin a campaign with a “historically appropriate level of technology” within their research technology trees (Zauberelefant, 2020). From the 1 January 1936 start date, the United Kingdom has the naval doctrine ‘Fleet in Being’ already researched, giving the nation an immediate advantage in naval warfare (AkatsukiEmpire, 2020). This decision is a curation of history by the game’s developer-curators that understands the United Kingdom as a powerful naval force;

an interpretation guided by recognised historical narratives that position the British as a maritime superpower during the period (Pryor, 2011, p. 6; Levy, 2012, p. 380; Boyd, 2017; Moretz, 2002; Sumida, 1992).

The NFTs significantly disseminate expressions of historical determinism. In part, the NFTs' association with determinist perspectives can be identified through the systems they replaced in previous iterations of the series. The NFTs were introduced in *HoIIIV* to replace *HoIIII*'s 'events' and 'war goals' systems (unmerged(1823), 2015). The 'war goal's system gave players in-game targets to pursue, such as creating Vichy France as a German puppet regime (Meneth, 2013). In contrast, the 'events' mechanic sent regular pop-up messages to the player informing them of landmark historical moments as a campaign progressed (ibid). These systems are openly criticised by the developer-curators as game mechanics that obfuscate the progression of history (unmerged(1823), 2015). In order to improve on these systems, the NFTs were introduced to more effectively model "visible progression" through the epoch (ibid). This phrasing reinforces the developer-curator's belief that the NFTs positively affect the statistical position of the player through a campaign.

The NFTs are 'engines of causality' that are predicated on establishing a persuasive systemic framework of historical change across the Second World War. Chapman (2016, p. 144) argues that technology trees are a framing device to create a gamified relationship between technologies, "there is a still a broad linearity to these trees...This makes particular claims about historical progression, creating a linear history of empowerment that is materialist and, more specifically, technologically determinist". Historical progression in the NFTs is modelled as linear and interlinked chains that proliferate determinist perspectives about how the Second World War occurred. Within this structure, technologies only improve; there is no room for technological stagnation or degradation, only a linear pathway of progress. *HoIIIV*'s NFTs are sites of ideological tension, with no individual focuses conveying significant technological inertia or historical decline. The player can only improve their position when progressing through the NFTs and rhetorically

progressing through the passage of time. This presents a distorted record of the past (Betts, 1980, p. 5). The way in which focuses are linked together also presents curated arguments that view landmark historical events as inevitably linked on a predetermined path. For example, the 'Triumph in Africa branch' on Italy's NFT is described as a chain of events "where you have lots of different choices on who to befriend and conquer" (SolSys, 2017). Yet, the player's progression through the history of Italy during the 1930s is directly predicated on the conclusion of a successful conflict against Ethiopia, embodied by the 'Triumph in Africa' focus at the top of the NFT (ibid). This predetermined pathway means that the player cannot invade Albania as Italy through the later 'Albanian Occupation' focus without first ensuring that the nation directly controls Ethiopia (Figure 7). As a consequence, the NFT attempts to make Italian "historical sequences intelligible" (Wells, 1958, p. 105). However, it also conveys a significantly curated interpretation to the player regarding historical causality during the 1930s: an Italian invasion of Albania was not possible without a military victory against Ethiopia.



Figure 7: Cropped screenshot of Italy's NFT, illustrating the historical chains between specific focuses.

This determinist model within the NFTs produces consistent visible expressions of authentic-lite rhetoric that position the Second World War as an inevitable conflict. The entire simulation of history is guided by this perspective. Despite the branching nature of the NFTs, even if “Germany goes after the Soviet Union first, and...Italy decides to go its own way in 1938”, a version of the Second World War will occur (Goodfellow, 2016, p. 3). The NFTs present a curated journey through the period which is directly formed by the developer-curators’ partial views of the epoch. Yet, history is not a linear progression from the start of an event to the finish (Waring, 2010, p. 283). It is also not preordained on an inevitable path (ibid). In its chained links of focuses, the NFTs partly reflect upon ‘historical contingency’, mapping out how unique historical events shape processes and have long-term consequences (Harms and Thornton, 2014, p. 203). Ultimately, a central historical tension within *HolIV* is witnessed in how the NFT’s linear and determinist vision of the epoch and the outbreak of the Second World War comes into direct conflict with broader understandings of historical progression as chaotic and undeterminable.

Chapter 3: Literature Review

Holliv's potential for conveying historical representation exists outside of Jonathan Frome and Paul Martin's (2019) canon of digital games that are imbued with significance in popular culture. Consequently, the NFTs are novel in-game digital documents which have been overlooked by current historical game studies scholarship. Despite this gap, there are multiple pools of relevant research that can be considered. In order to limit this literature, we should repurpose the philosophy of Richard Kuisel (1993, p. 7); if the mere mention of history and games in scholarship qualifies as significant then, "the net is so wide that we might catch an unexpected fish". In this case, we need a very specific net.

The review will first define historical game studies. While understanding its association to game studies, the thesis contends that William Uricchio's research (2005) can be situated as the origin point of historical game studies as a discipline with unique ambitions. The review will then situate the dominant literature of historical game studies, focusing on research that examines visual and systemic representations of history in digital games. The *Hol* series is overlooked in this scholarship. The chapter will then explore the historiography of the origins of the Second World War. This literature, located predominantly in the twentieth century, is catered towards a general audience, attempting to determine responsibility for the conflict's outbreak and judge its inevitability. Finally, the review will consider the foundational literature of authentic-lite rhetoric: authenticity lite (Kempshall, 2015, p. 7) and procedural rhetoric (Bogost, 2007). By understanding its interdisciplinary root literature, the research presents an innovative and robust concept which elucidates upon the curated historical interpretations within *Holliv*'s NFTs.

Defining Historical Game Studies

Many disciplines examine the past through popular culture objects (Pujol and Champion, 2012, p. 91; Williams, 2004, p. 257). For example, cinematic portrayals of history constitute a significant area of research within communication and media studies (Droysen, 1967; Elliot, 2010; Ferro, 1988; Richards, 2014; Rosenstone, 1995; 2006). However, this thesis is located within the emergent discipline of historical game studies, and it is useful to place this developing academic school within broader historical context. Historical game studies is a distinct discipline with its own characteristics. It is not primarily concerned with descriptive histories of digital games and the game industry, although there is a myriad of general work on this topic (Amos, 2018; Donovan, 2010; Kocurek, 2015; Kent, 2002; Leigh, 2018; McNeil, 2019; Mott, 2011; Stanton, 2018). The emergence of historical game studies is partly rooted in the development of game studies through the early twenty-first century (Aarseth, 2001). Before this period, research on digital games was scattered between individuals and disciplines (Bryce and Rutter, 2006b, p. 2; Hemnes, 1982). Game studies was formalised in 2001 with the publication of its first academic peer-reviewed journal (ibid; Bogost, 2015; Deterding, 2015; Juul, 2005; Wolf, 2002, p. 2). This early work argued that games were interconnected cybernetic systems which required fundamentally new approaches (Aarseth, 1997; Frasca, 2003, p. 223). Yet, despite its growth in recent decades, game studies has not fully embraced historical research. Historians who are interested in studying digital games have their routes into game studies obfuscated. In the founding editorial for *Game Studies*, sociology, narratology, semiotics, film studies, and media studies are branded “origin” fields which amalgamate into game studies (Aarseth, 2001). This exclusion of history has continued into recent memory, with the discipline being set as “an interdisciplinary field of research...a pedagogical focus...a design focus, it could be a social science focus, perhaps psychology is involved...” (Husfeldt, 2017). This statement suggests that although game studies fosters a plurality of research, it is not concerned with historical work.

The origins of historical game studies as a definable discipline can be situated in the work of Uricchio (2005), who presented history in digital games through multi-layered representations of authenticity. There is an abundance of current scholarship within game studies that approaches the notion of authenticity in videogames (Mochocki, 2021). Yet, in opposition to traditional perspectives within history that were wary of using the medium for concerns over their fallibilities in historical accuracy and representation, Uricchio cast digital games as a distinct form of history (Bryce and Rutter, 2006a, p. xiii; Chapman, Foka and Westin, 2017, p. 358; Elliot and Kapell, 2013a, p. 2; Fogu, 2009, p. 106; Kee and Graham, 2009, p. 307; Lowood and Guins, 2016, pp. xiv-xv). For instance, Uricchio argues that games such as *Oregon Trail* (MECC, 1985) illustrate a distinct sense of historical time and place:

“If you start in 1840, you can only start from Independence, Missouri...If you start in 1860, there are several starting points...and you have more destinations that are actually named...it is representative of the time...the 1846 itinerary contains only that information that was available in 1846” (Uricchio, 2005, p. 311).

Through technical changes within its simulation, *Oregon Trail* portrays developments in American urbanisation across the nineteenth century (ibid). Uricchio’s work positions historical game studies as an examination of the systemic and visual representations of history that are unique to digital games, forming a stable methodology for historians to negotiate the tensions between the technical artifact of a digital game and its representation of the past (Chapman, Foka and Westin, 2017, pp. 358-359).

However, historical game studies is still developing its own identity, encompassing an interdisciplinary remit that also includes heritage and memory studies (Champion, 2015; Begy, 2015). This identity development is evident in current discourses on definitional terms. In one sense, historical content within digital games is intrinsically connected to heritage, defined as “a version of the past received through objects and display, representations and engagements, spectacular locations and events, memories and commemorations, and the

preparation of places for cultural purposes and consumption” (Waterton and Watson, 2015, p. 1). The notion of heritage is also linked to the contested and varied concept of authenticity (Silverman, 2015, p. 70). For some heritage organisations, authenticity is defined by the existence and documentation of original materials (ibid, p. 73). In current game studies discourse, emphasis is placed on how the medium can represent and recreate famous and recognisable physical buildings and spaces (Mochocki, 2021). Similarly, in historical game studies focuses on how games convey and encourage “a sense of authenticity in the gameplay” (De Groot, 2016, p. 153). When discussing the representations of the Second World War found in the first-person shooter *Brothers in Arms: Road to Hill 30* (Gearbox Software, 2005), Jerome De Groot (2016, p. 154) identifies that the advertising claims of the game centre on ““unprecedented authenticity””, created from primary historical research into equipment and eyewitness accounts. In many cases, this quest for authenticity is projected through a digital game’s graphical capabilities, particularly from “realist” simulations (Chapman, 2016, pp. 59-89) such as the *Call of Duty* series. However, despite this definitional and literary expanse, it is useful to define historical game studies from Chapman, Foka and Westin’s (2017, p. 362) widened perspective as,

“the study of games that in some way represent the past or relate to discourses about it, the potential applications of such games to different domains of activity and knowledge, and the practices, motivations and interpretations of players of these games and other stakeholders involved in their production or consumption”.

This definition is expansive and positions historical game studies through its theory, content, and purposes (ibid, pp. 358-359). In this understanding, the discipline can examine how history is represented in-game, how digital game paratexts convey the past, and how videogame industry practices impact on the portrayal of history within games (ibid, p. 362).

Historical Game Studies and Representations of the Past

It is possible to outline two dominant strains of historical game studies scholarship: exploring how videogames are implemented in pedagogical environments, and examining how digital games represent the past. Wider discourses on using computer games in educational settings have their origins in the 1980s and 1990s, with educators arguing that knowledge could be harnessed through the medium (Barko and Sadler, 2013, p. 124; Dumbleton and Kirrimuir, 2006, p. 225; Nielsen et al, 2008, p. 211; Salter, 2016, p. 119; Funk, Hagen and Schimming, 1999; Turkle, 1984; Williams, 2003). Through the early twenty-first century, the expanding complexity of digital games supported the case for their implementation in classrooms (Aldrich, 2005; Huntemann, 2009, pp. 145-147; Linderoth and Sjöblom, 2019; Salen and Zimmerman, 2004, p. 297; Bean, Sinatra and Schrader, 2010; Bohannon, 2008; Jones et al, 2019).

Historical game studies also explores how digital games can be implemented in history classrooms (Gee, 2003; McCall, 2011; 2016; Williamson Shaffer et al, 2005; Williamson Shaffer, 2006; Watson, Mong and Harris, 2011; Squire, 2011; Steinkuehler, Squire and Barab, 2014). Discussions have focused on the effects of using strategy titles such as *Age of Empires II* (Ensemble Studios, 1999) and *Medieval II: Total War* (Creative Assembly, 2006) in undergraduate history courses (Holdenried and Trepanier, 2013, p. 107). *SMC* also features in this work, providing an opportunity to interrogate technical simulations of historical models (Chapman, 2013; Chapman, 2016, pp. 61-70; Squire, 2004; 2006; McCall, 2011, pp. 1-2). This literature also focuses on the educational benefits of studying counterfactual history (Brown, 2008, p. 118; McCall, 2011, p. 13). Squire (2006, p. 19) argues that it is “possible to construct, investigate, and interrogate hypothetical worlds” in the systems of *Sid Meier’s Civilization III* (Firaxis Games, 2001) (*SMCIII*). Chapman (2016, p. 232) provides a comprehensive conceptual examination of digital strategy games as counterfactual playgrounds that allow the player to rewrite history, “allowing counterfactual comparisons and narrative experiments to become broadly available”.

Away from a pedagogical focus, research on videogame representations of history is a bountiful area of enquiry within historical game studies (Chapman, 2016; Kempshall, 2015; Spring, 2015; Wills, 2008; Wright, 2017; 2018; 2019; von Lünen et al, 2019, p. xiii). Early historical game studies scholarship focused on justifying the study of digital games, attempting to determine the historical accuracy of the medium (Antley, 2012; Chapman, 2012; Clyde, Hopkins and Wilkinson, 2012; Munslow, 2007; Snow, 2010; Champion, 2011; Elliot and Kapell, 2013a; Gardner, 2007). Chris Kempshall (2015, p. 3) summarises these questions succinctly through the question, “Are computer games ‘History’?”. This work often focuses on the concept of remediation: how new media retains influences inherited by legacy media (Bolter and Grusin, 2000). A wealth of historical game studies literature explores how cinematic visions of history are evident in digital games (Chapman, 2016, p. 61; Wright, 2017; Kember and Zylinska, 2012, p. 8; Linderoth, 2015; Moberley, 2008, p. 287). The concept of remediation emphasises that videogames do not exist in a vacuum; their portrayal of the past is not wholly defined by what is shown to the player, but by popular culture and developer assumptions of an audience’s historical knowledge (Kempshall, 2015, p. 13). De Groot’s (2016, p. 154) research on the mass consumption of history in popular culture also refers to how historical perspectives are reinterpreted through games, asserting that the player is invited into a “living” history “presented in re-enactment”. This perspective understands how digital games embrace aspects of history while implicitly referring to its relationship with the present (Elliot and Kapell, 2013a, p. 3).

A substantive amount of historical game studies research explores representations of the Second World War within realist simulations (Chapman, 2016, p. 65; Cruz, 2007; Gish, 2010; Kempshall, 2019; 2020; Sterczewski, 2016; Ramsey, 2015; 2020). According to Kempshall (2015, p. 4), the Nazis cast “a very long shadow over historical computer games...dramatic portrayals of the war against Nazi Germany have long been a staple of modern entertainment”. This is an astute reflection, historical game studies literature identifies a link between digital games about the conflict and the lasting influence of film (Sterczewski, 2016; von Lünen et al, 2019,

p. xviii; Erll, 2008, p. 392). For instance, in *Enemy Front* (CI Games, 2014), the player is tasked with destroying a Norwegian heavy water production facility, calls upon imagery in war films such as *The Heroes of Telemark* (Sterczewski, 2016). Similarly, Chapman (2016, p. 65) argues that historical representations in *Brothers in Arms: Road to Hill 30* (Gearbox Software, 2005) focus on visual recreations of uniforms, weapons, and environments seen in film. These aspects of a realist simulation reinforce Western depictions of the conflict, projecting a recognisable narrative of a 'just' war (Kempshall, 2019, p. 255; 2020, pp. 1-2; von Lünen et al, 2019, p. xviii; Walzer, 2000, pp. 111-117). Realist simulations are heavily influenced by remediated western popular culture portrayals of the war. As a consequence, research often focuses on how these titles reinforce recognisable conceptions of the war as seen in other forms of popular culture.

However, digital strategy games are not realist simulations, and they engage with history through alternate means (Wolf and Perron, 2003, p. 14). Titles such as *HoIIV* are conceptual simulations that abstract the past through in-game systems and processes (Chapman, 2016, p. 70). Historical game studies scholarship has begun to explore the historical interpretations bound into these systems. For example, *Sid Meier's Colonization* (MircoProse, 1994) has been explored for its representation of indigenous peoples (Mir and Owens, 2013, pp. 91-106). Kempshall (2015, p. 49) analyses how a player-made modification for *Napoleon: Total War* (Creative Assembly, 2010) reconstructs representations of the First World War in a game system that portrays the nineteenth century. Kempshall (2015, p. 24) argues that the 'Great War Mod' creates a unique image of the First World War which can only be understood through technological limitations. For example, through the game's restrictions on customisation, the United States can only be represented in-game as reskinned British Troops in Canadian uniforms (ibid, p. 49). This form of research elucidates upon how digital strategy games require a methodological approach that accounts for historical arguments made within processes and systems. Within current historical game studies scholarship, PDS titles are explored for their historical and counterfactual representations of cultural and social phenomena (Apperley, 2013, p. 186; Spring, 2015, p. 211; Dumbleton and Kirriemuir, 2006, p.

232). *Europa Universalis III* (Paradox Development Studios, v. 1.1, 2007) is examined as a site of selective interpretations of religious history in the seventeenth and eighteenth century (McMichael, 2007; McCall, 2012). Similarly, Martin Wainwright (2014, p. 596) dissects the title's representation of colonial history, criticising its model of the trans-Atlantic slave trade as a small resource icon depicted "simply as chains". The game also produces a reductive system of colonialization, where 'Old World' crops such as coffee and sugar are depicted as already-refined resources waiting to be cultivated by European civilizations (ibid, p. 587).

HoIV is mostly overlooked from this scholarship. However, there are some sparse examples. Rhett Loban (2017) provides an analysis of *HoIV* through its distinct system of diplomatic and international relations. In contrast, Andrew Salvati (2019, p. 157) argues that 'Deus Vult', a user-created mod for the game, has evolved into a culturally problematic "far right meme" that gives players control over a reimaged crusade against "Muslim infidels". The mod was eventually removed as content which could be perceived as hate speech (ibid; Pfister, 2019, p. 275). Similar literature explores how the *Hol* series excludes the Holocaust. When discussing *HolIII*, Wainwright (2014, pp. 596-597) states that the game does not allow the player to commit atrocities against the civilian population for both commercial and playability reasons. Eugen Pfister (2019, p. 275) argues that an ideological disconnect exists between *HoIV*'s exclusion of the Holocaust, and its neutral depiction of the epoch:

"Those players choosing to play Germany in *Hearts of Iron IV* could micromanage the most minute details of the German Reich...but never had to think about the implications of their actions like an attack on Poland or the millions of civilians killed because of their 'race' or their political or sexual orientation...Here, Germany is just one faction among many others..."

This is a compelling argument. While arguing that "the construction of concentration camps" should be off limits in the game, Pfister finds it "hard to understand why there is no mention whatsoever of the Holocaust and the inhumane ideology" of the Nazi regime (ibid, p. 276). Yet, recent historical game

studies scholarship is beginning to address historical representations within *HoIIV*. Pieter Van Den Heede (2020, p. 619) presents a content analysis on marketing paratexts associated to the title, highlighting the game's claim for authenticity within its Steam listing. Grufstedt's (2020) ground-breaking contribution examines how *HoIIV* offers historical and game design insight through counterfactual opportunities as designed by developers. This research expounds on how the genre of grand strategy uniquely represents history as a conceptual simulation of abstracted digital systems (Chapman, 2016, p. 70). This work demonstrates the bountiful future potential for scholarship into curated representations of the Second World War in *HoIIV*.

As historical game studies has evolved across the last two decades, it has begun to identify methodological frameworks for studying representations of the past in digital games (Clyde, Hopkins and Wilkinson, 2012; Munslow, 1997; 2007a). This formal work is useful to the thesis. Chapman (2012; 2013; 2013a; 2016; 2017) offers a comprehensive approach for studying digital games, shifting debate away from judging a game's historical accuracy and focusing on creating conceptual frameworks. The historian highlights the need for an approach that looks beyond the content of individual commercial digital games (ibid, 2016, p. 7). Instead, historical game studies work must consider the limitations of the form, examining how a game's structure and its exterior relationships to the industry and the player relate to contemporary debates in historiography (ibid). Chapman provides significant methodological underpinnings to the thesis through an understanding of the "representation of history...in visual images...but also through rules and opportunities for action" (ibid, p. 22). This is a significant distinction; the systemic rules of a digital game constitute their own distinct representation of the past, as well as a title's visual components.

Chapman's (ibid, p. 15) creation of term "developer-historian" is also highly significant to the thesis. The concept describes videogame developers who arrange pieces of historical data into digital games to produce historical meaning (Chapman, 2013, p. 319). The term builds upon Rosenstone's (2006, p. 159) understandings of

film makers as historians. Tara Copplestone (2017, p. 420) argues that the notion of the developer-historian is useful for understanding how crafting a digital game's representation of cultural heritage relates to the processes in which history is crafted through academic research. The term developer-historian posits that videogame developers can be considered to be creating exhaustive histories that construct and represent the past with expertise. The thesis pushes Chapman's concept towards an alternative perspective, arguing that developer-historians are also developer-curators. History in *Holliv* is created through how the developer-curators balance their understandings of the past and their understandings of game development and audience expectation. Developer-curators manage and reinterpret historical narratives and events to fit into computational and textual structures and to entertain audiences. In this sense, digital games, as conceptual simulations, are a visual and systemic gallery where certain historical information is curated to the player. Through the inclusion or exclusion of historical data, developer-curators form a digital gallery with specific historical interpretations that are relevant to the 'exhibition' of history within a digital game. By actively deciding the forms of historical knowledge to include or exclude, developer-curators make partial, and often political, decisions about the visible representation of a playable history. Through these decisions, the interpretations of history in *Holliv* are on curated display to the public. The history that is ultimately conveyed to the player is always partial, always curated, and always editorialised by developer-curators. Similarly, Uricchio (2005, p. 331) argues that representations of history in digital games are "inherently partial, deforming, delimiting...No imaginable set of 'historical' representations can do justice to the fullness of 'history' as past". This is a significant perspective with digital games acknowledged to be incomplete and inaccurate (Elliot and Kapell, 2013, p. 358). *Holliv*'s depiction of the origins of the Second World War is curated through the particular historical knowledge of developer-curators, and their assumptions of the audience's knowledge of the past. By understanding digital games as partial creations of developer-curators, it is possible to acknowledge the limitations of a digital game's depiction of history, while still being able to discern the value of its historical interpretations. In total, the emergent and diverse library of historical game studies literature produces a

comprehensive sense of how to effectively negotiate the innate tensions between a historical digital game and its ahistorical representation of the past.

The Origins of the Second World War

The considerable body of western historical literature concerning the origins of the Second World War, created by both professional historians and unofficial actors writing for a large audience, creates a recognisable perspective of how the war began, who was responsible, and how events are understood to be related. They are also directly connected to the bundles of curated historical interpretation found within *HolIV*'s NFTs, as literature that disseminates representations of the past intended for mass consumption. By identifying this literature as produced by both non-academic and academic historians (Trask, 1985, p. 79; De Groot, 2016, pp. 13-15), the thesis intentionally moves away from strictly consulting academic-facing research that discusses "the subtleties, ambiguities and complexities of the time" (Adamthwaite, 2011, p. 522). Instead, the thesis consults accessible, well-researched and recognisable discussions on the origins of the war that focus on determining the inevitability of a global conflict. Therefore, while the thesis considers the research of authors who often write for a strictly academic audience, there is also significant attention paid to works of history that are marketed and written for a larger of non-specialists. These works offer a significant parallel link to *HolIV* as a contemporary work of popular history through the medium of digital games.

Discourses on the origins of the Second World War can be understood as a broad range of study considering "the events of diplomatic relations...the activities of ambassadors...the movement of ideas and the clash of ideologies" (Bell, 1986, p. 6). There is an abundance of research that reflects on global political conditions following the end of the First World War on 11 November 1918 (Sontag, 1963, p. 497). This research explores how the 28 July 1919 Versailles Treaty collapsed (Boemeke, Feldman and Glaser, 1998, pp. 1-3; Kennan, 1996, pp. 17-19). Historians

argue that changes to the settlement were inevitable, “The only question was whether the settlement would be revised, and Germany would become again the greatest Power in Europe, peacefully or by war” (Taylor, 1964, p. 79). However, these studies typically encompass the interwar period. For instance, Keith Eubank (1975, p. viii) argues that through his rise to power as the Chancellor of Germany in 1933, Hitler had “exploited the popular dissatisfaction stemming from the German defeat in World War I”. *HolIV*'s NFTs include textual expressions that consider the long-term geo-political effects of the First World War. Text for ‘The Munich Conference’ event, accessed by Germany, states: “the stubborn Czechs are refusing to surrender their territory...An invasion plan has been prepared that will wipe this vile experiment of Versailles off the face of the Earth!” (TalkingKittyCat, 2020). This description conveys deep-seated German resentment towards the political conditions of the Versailles treaty (Beevor, 2012, p. 4). However, the thesis is not concerned with this longer historical timeframe. Instead, it examines the NFT's curated interpretations of a shorter period of history which commences on 1 January 1936 and concludes on 1 September 1939. This timeframe aligns with the game's first campaign start date, positioned by *HolIV* as the decisive moment from which a European war could not be avoided (Goodfellow, 2016, p. 3). This significant rhetorical claim, that a war was inevitable by the mid-1930s, underpins the game's entire interpretation of the epoch and is supported by portions of the historiography (Kershaw, 2008, p. 5; Williams, 1956, p. 39).

Yet, even by limiting the scope of the research, historiography concerning the origins of the Second World War is expansive (Adamthwaite, 2011; Finney, 2010; Martel, 1987; McDonough, 2011). Competing perspectives stress the roles of different nations. For example, the impact of Italian dictator Benito Mussolini is split among historians; while some suggest that Il Duce pursued an ineffective foreign policy designed to generate positive political headlines (Baer, 1967, p. 35; Mack Smith, 1976; Puzzo, 1959, p. 232; Salvemini, 1927; 1953; 2006), revisionists argue that Mussolini maintained strategic long-term territorial ambitions in north Africa and the Middle East (Knox, 1982, p. 109; Reynolds, 2006, p. 38). The wide

range of historiography also projects global perspectives (Iriye, 1992, p. 1; Kershaw, 2008, p. 4); Wang Gungwu (2007, p. 4) argues that:

“World War II, of course, is understood quite differently...for most people, World War II represented the war that was fought largely in Europe...and then enlarged to cover the rest of the world. For our region, it is a little bit less clear.”

A significant volume of literature surrounds the origins of the war in Asia (Bayly and Harper, 2005; Barnhart, 1996; Iriye, 1981; 1992; Sheftall, 2011; Shillony, 1988). Historians argue that the conflict can be identified by the Japanese invasion of Chinese Manchuria on 18 September 1931 (Frost, Vickers and Schumacher, 2019, p. 1; Sheftall, 2011, p. 50). Many western histories overlook this aspect of the conflict and how it merged into the European conflict through a complex web of geopolitical interests (Adamthwaite, 2011, p. 520; Beevor, 2012, p. 2; Banhart, 1996; Gungwu, 2007, p. 4).

HolIV purports to offer a global simulation of the epoch (Steam, 2016). However, the title conforms to western historical interpretations of the epoch, particularly stressing the importance of Europe. Upon its release, of the game's nominated seven major powers, five are European nations (Lillebror, 2016c). *HolIV*'s focus on Europe is reflected in the sheer scale of scholarship on Germany during this period (Kershaw, 2008; 2010; 2015; Martel, 1992; Overy, 1982; 1988; 1995; Tooze, 2007). This literature is theoretically split into structuralist or intentionalist arguments that both attempt to answer whether the Second World War was caused by Hitler (Adamthwaite, 2011, p. 515). Richard Overy (1988, p. 1) characterises this debate as those who see Hitler's wars of aggression as intentional plans based on the ideas of racial struggle, and those who emphasise structural causes such as staving off German domestic unrest and economic crisis.

Through structuralist accounts, Hitler's role as the instigator of the Second World War is reduced. This literature is dominated by A.J.P. Taylor's (1964) *The Origins of the Second World War*. Upon its release, the book was hailed as a masterpiece,

arguing that Hitler had not planned the war, but entered a conflict through a position of geopolitical opportunism that was indistinguishable from the policies of conventional statesmen (Haffner, 1961; Marquand, 1972; Taylor, 1952, p. 25; Kennedy, 1987, p. 141). Taylor (1964, p. 335) argued that Hitler acted rationally in global diplomatic talks, with the eventual outbreak of war caused by the Allies foolhardy attempts to defend Danzig. As George Martel (1987, p. 12) summarises,

“This simple revisionist perspective enabled Taylor to go far beyond a condemnation of Hitler and Nazism. If Hitler had a simple “blueprint for aggression” it ought to have been the task of Western statesmen...to divine and wreck it...But if Hitler had no plan, just vague wishes and daydreams, it meant that the range of responsibility extended far beyond a few individuals...And responsibility was different than guilt”.

Taylor (1964, p. 27) condemned Hitler with “wickedness without parallel in civilized history”. However, in foreign policy, he was aligned with moderate political figures (ibid). Taylor’s argument was vehemently challenged as misguided and negligent (Martel, 1987, p. 2; Goda, 2001, p. 100; Burk 2000, p. 288). Historians criticised his refusal to make moral judgements, and his implication that German hegemony in Europe was natural (Kennedy, 1987, pp. 142-143; Robertson, 1971).

Taylor’s interpretation is significant because it challenged accepted orthodoxy, questioning fundamentally accepted intentionalist interpretations of the causes of the Second World War (Martel, 1987, p. 2). Intentionalist arguments understand that Hitler was planning a war of conquest (Adamthwaite, 2011, p. 507). Hitler held a fanatical will for aggressive expansion and a “manic vanity” toward achieving his goal of European domination during a single lifetime (Trevor-Roper, 1978; Heilbrunn, 2011, p. 91; McDonough, 2019, p. 10). Gerhard Weinberg (1970, pp. 1-8; Eubank, 1975a, p. 17) argues that Hitler’s will to recover territory lost in the Treaty of Versailles made a European conflict unavoidable. In Ian Kershaw’s (2008, p. xii) view, Hitler conducted an “assault on the roots of civilization” and “was the epicentre of that assault”. This literature also highlights Hitler’s ambition for *Lebensraum*, a racial living space, as a key objective and motivator for a potential conflict (Beevor, 2012, p. 2; McDonough, 2019, p. 16; Rich, 1992, p. 5). The majority

of English-language histories on the origins of the Second World War focus on the intentions of Hitler, examining how a “Wicked Great Man whom a malevolent Destiny could have wished on any society” instigated a global war (Bosworth, 1996, p. 501).

Anthony Adamthwaite (2011, p. 515) argues that “we have what are likely to be definitive works on the economy, Hitler and the workings of the state”. Historians have also examined broader perspective of the origins of the Second World War. For instance, the role of Joseph Stalin is also a major thread of scholarship (Nove, 1964; 1989; Roberts, 2002; Uldricks, 2009, p. 61). Significant portions of this historiography focus on the 1939 Soviet-German Non-Aggression Pact (Neimanis, 1997, p. 53; Roberts, 1995, pp. 62-91). Roy Medvedev (1989, pp. 727-728) argues that the pact was made in the face of a complex set of instable political alliances. Orthodox interpretations view the policy of collective security as a sincere attempt to construct an anti-German alliance with Britain and France (Haslam, 1984; Carley, 1999; Gorodetsky, 1990; Watson, 2000). In contrast, revisionist accounts see collective security as nothing more than a bluff made by Stalin in an effort to persuade Hitler to ally with the Soviet Union (Tucker, 1990; Weinberg, 1981; Raack, 1995).

The United Kingdom’s role in the origins of the Second World War also represents a significant area of literature. Chamberlain’s policy of appeasement is a significant source of research (McDonough, 1998, 2011). Appeasement, a British foreign policy during the 1930s consisting of a series of concessions in the face of aggressive military movements, was seen as a national moral weakness that was eventually overturned through the charismatic figure of Winston Churchill (Bosworth, 1996, p. 504; Dutton, 2006; Martel, 1987, p. 1; Gilbert, 1966; Gilbert and Gott, 1963; Robbins, 1968). Chamberlain is often held as primarily responsible for British failures to prevent Hitler from launching into a new European war (Gorodetsky, 2000; Uldricks, 2009, p. 67). *Guilty Men*, a polemic written by journalists Michael Foot, Peter Howard, and Frank Owen under the pseudonym Cato and published in July 1940, criticised the political actions of fifteen individuals including Chamberlain

(Dutton, 2006). The work called on these figures to retire “and so make an essential contribution to the victory upon which all are implacably resolved” (Cato, 2010, p. 123). This criticism impacted on Chamberlain’s reduced public standing and his legacy within popular historiography (Dutton, 2001, pp. 71-72; Macklin, 2006, p. 98; Addison, 2011, p. 136). However, revisionist accounts have challenged this view, arguing that appeasement was a necessity which “unwittingly contributed to the outbreak of the Second World War” (Kennedy, 1987, p. 143; Overy, 1988, p. 2). Chamberlain acted on sound political instincts and developed significant reservations about the integrity of Hitler’s motives by 1938 (Cowling, 1975, p. 271; Fuchser, 1982; Watt, 1983). Yet, modern revisions also critically suggest that Chamberlain neglected alternative options to appeasement, such as accelerating rearmament or seeking the support of the Soviet Union at an earlier date (Parker, 1993; McDonough, 1998; 2011). Instead, through appeasement, the British “rejected effective deterrence” and hastened a new global war against Germany (Henig, 2001, p. 91).

The origins of the Second World War are a contested historiographical minefield. Adamthwaite (2011, p. 513) argues that “Hitler’s victory in the battle of the books is undeniable”, with the majority of the literature remaining created in the twentieth century and exploring arguments through intentionalist or structuralist perspectives. However, the significant roles of other nations in the outbreak of the war has also witnessed a sharply increasing historiography. Overy (1988, p. vii) argues that historical discourse on the origins of the Second World War have undergone a transformation through the twentieth century. This thesis understands the significance of this literature as the foundation of popular historical assumptions and perspectives that are adopted by both developer-curators and players.

Origins of Authentic-Lite Rhetoric

The interpretations of history in *HolIV*'s NFTs are underpinned by a groundswell of popular historical literature on the origins of the Second World War. By creating digital structures of computational processes and textual information that are influenced by these arguments, the game's developer-curators produce unique expressions of authentic-lite rhetoric. In order to understand the historical perspectives bundled into this concept, it is crucial to establish its foundational literature. Scholarship in historical game studies has considered the relationship between a digital game's mechanics and systems and its narrative and text (Chapman, 2016; Spring 2015), this thesis offers an analysis through the formally 'named' scope of authentic-lite rhetoric. The thesis alights on the amalgamate and interdisciplinary concept of authentic-lite rhetoric from the research of Kempshall (2015) and Ian Bogost (2006; 2007; 2008).

Kempshall's (2015, p. 7) concept of "authenticity lite", a phrase expressing players' historical expectations for digital games about the First World War, is integral to authentic-lite rhetoric. By considering the practicalities of commercial videogame development, Kempshall argues that historical representation is affected by compromises between the desire of developers to implement historical information, and the overall creation of an entertaining experience for players:

"Neither computer game designers, nor indeed, those who want to play them want authenticity from historical games. They want *authenticity lite* [emphasis author's own]...A game that sought to accurately recreate the world wars would be simultaneously incredibly dull...because it is constructed it can therefore be analysed to see what elements are recurring" (ibid).

Kempshall understands digital game historical content as accessible and editorialised in order to provide a sense of an authentic experience; conveying a difficult-to-define sense that the player is engaged with a playable historical past that bears at least some authentic semblance to an actual past . In proposing authenticity lite, Kempshall provides a phrase which explores the historical content

of digital games while accounting for ahistorical perspectives created by game design processes. By acknowledging that the creation of digital games are influenced by external business considerations and player-engagement, Kempshall imbues significance to the notion of authenticity lite. All videogames are developed in dialogue with external commercial considerations. Authenticity lite balances in-game historical representations with an acceptance of exterior factors that determine what a game can do or should be. This understanding is highly useful, allowing discourses on videogame historical accuracy to shift onto exploring which historical information is included or excluded in the final product, and what historical interpretations are disseminated to the player as a consequence of this curation.

Kempshall's work is indicative of Andrew Salvati and Jonathan Bullinger's (2013) concept of "selective authenticity", a term employed to examine the historical content of realist simulations of the Second World War. The historians understand selective authenticity as a "form of narrative license" that blends historical representations with audience expectation. By complying to cinematic conventions, digital games about the conflict foster a remediated and selective sense of authenticity (Salvati and Bullinger, 2013, p. 154). Critically, Salvati and Bullinger's work is predominantly concerned with cinematic portrayals of the conflict and how they feed into their novel notion of 'BrandWW2' (Salvati and Bullinger, 2011; Saber and Webber, 2016). This perspective makes the term unsuitable for the thesis's consideration of a conceptual simulation (Chapman, 2016, pp. 59-89) that does not possess an intricate and cinematic narrative. In contrast, Kempshall's phrase is more open for application in interpretations that consider the unique systemic approaches to history as seen in conceptual simulations. Yet, while Kempshall (2015, p. 7) introduces authenticity lite, it is not mentioned again in his work. Kempshall's abandonment of the term overlooks a functional potential approach for examining videogame representations of history more comprehensively as both sites of representation and sites of commercial considerations.

The thesis develops authenticity lite by melding it to an established game studies theory: Bogost's (2007, p. 3) notion of "procedural rhetoric". Bogost (2006, p. 186) argues that "games create complex relations between the player...that simultaneously embed material, functional, and discursive modes of representation". Procedural rhetoric is an evolution of this concept, described as "the art of persuasion through rule-based representations and interactions" (Bogost, 2007, p. ix). The direct interaction between the player and a digital game system produces a meaningful message; for example, Nintendo's animal lifestyle simulator *Animal Crossing: Wild World* (Nintendo EAD, 2005) conveys an argument for the potency of a capitalist system:

"In real life, when we pay our mortgage bill we don't see where that money ends up. But in *Animal Crossing*, the player experiences the way his debt makes bankers wealthy. After a player makes a major payment to his mortgage, Tom Nook closes his shop and upgrades it; the game starts with Nook's Cranny, a wooden shack general store, and ends with Nookington's a two-story department store" (Bogost, 2008, p. 118).

Through taking out loans in order to pay for virtual home renovations, Bogost argues that the player can tangibly see the benefits of a pseudo-capitalist anthropomorphic system (ibid). Procedural rhetoric works as a hidden computation through textual and visual components that conveys meaning to the player. Digital game procedures and processes "define the way things work...from mechanical systems...to conceptual systems like religious faith" (Bogost, 2007, p. 2). The computational power of digital games to enact many processes simultaneously allows a greater range of expression (Bogost, 2008, p. 123). By specifying the persuasiveness of computation, Bogost's (2007, p. 4) theory is confined to the ways in which simulations are consciously created. This distinction separates computer games from other media (ibid). Through the notion of procedural rhetoric, the NFTs in *Holliv* are artefacts that potentially hold persuasive meaning through the visual outcomes of their computational processes.

Procedural rhetoric is a popular concept in game studies (Anable, 2018; Brathwaite and Sharp, 2010; Harper, 2011; Šisler, 2016). Christopher Paul (2012, p. 4) argues

that studying rhetoric is a useful approach for studying unique digital games processes. Similarly, Mary Flanagan (2009, p. 249) argues that procedural rhetoric can present moral values, exploring how ethical perspectives are reflected in digital games as frameworks that model the complexity of global issues and make them easier for players to comprehend. Aubrey Anable's (2018, p. xii) work on affect theory in digital games also calls upon Bogost's ideas, arguing that, "video games are affective systems" that project cultural meaning. Conceiving of digital games as affective systems is a logical step from the notion of procedural rhetoric; Anable states that "Video games compel us to act...through the procedures of their algorithmic structures" (ibid, p. 52). Anable's analysis on affect theory is highly influenced by procedural rhetoric; digital games are media objects and systemic structures of feeling which elucidate upon collective desires, fears and ideas of everyday life (ibid, p. 132).

However, procedural rhetoric has faced criticism. Gonzalo Frasca (2007, p. 87) argues that the concept is too narrow in scope and does not account for the significance of symbols and player performance. In contrast, Miguel Sicart (2011) states that procedurality diminishes the importance of player agency and inordinately exalts the content of a digital game as designed by developers (ibid). This is a useful contribution, yet the notion of the deliberate curation of a digital game's representation of history is fundamental to the thesis. Designed game systems are crucial emitters of partial and curated interpretations of history. Procedural rhetoric understands the significance of projecting meaningful messages to the player through a distinctly designed system.

Procedural rhetoric is useful for understanding how computational systems make persuasive societal and cultural claims. However, Bogost's work is weak on historical rhetoric. The scholar briefly discusses the term "procedural history" (Bogost, 2007, pp. 252-256), reductively arguing that procedural rhetoric in digital games allows players to understand "why the history of the world unfolded". He highlights Jared Diamond's (2005) assessment of why the Aztecs did not conquer the Spaniards, defining historical rhetoric as a procedural system in which "political

and social outcomes result from configurations of constrained material conditions” (Bogost, 2007, p. 253). In a digital strategy game context, Bogost suggests that *SMC* offers an abstraction of history through “a limited window onto the actual events of lived history” (ibid). Although graphical changes accompany the game’s depiction of each different civilization, the player is limited to interacting with the same system of historical progression for each nation on the game’s universal technology tree (ibid, pp. 254-255). However, Bogost does not offer any critical exploration of the content of the game’s historical interpretations. History in digital games is understood in the broadest sense. Within this broadness, there is a significant gap in current game studies literature concerning detailed examinations of historical representations in digital games through the role of procedural rhetoric.

Standing alone, Kempshall’s (2015) and Bogost’s (2007) ideas cannot fully account for historical arguments concerning of the origins of the Second World War that emerge in *HoIIV*’s NFTs. However, taken together, through the novel concept of authentic-lite rhetoric, these ideas can be deployed to elucidate uniquely upon historical representations in digital strategy games. Kempshall’s (2015, p. 7) underutilised concept of authenticity lite is highly useful to mould to the notion of procedural rhetoric (Bogost, 2007, p. 3). Authentic-lite rhetoric emphasises practical perspectives on the commercial and audience considerations of incorporating historical interpretations in digital games. Authentic-lite rhetoric can determine how in-game public-facing historical, and ahistorical, interpretations are produced by both the collision or combination of computation and text. The NFTs in *HoIIV* serve as a highly useful site where this collision and combination takes place. Authentic-lite rhetoric accounts for both the direct content of historical rhetoric produced by a digital game and the exterior circumstances surrounding contemporary historical game production.

Conclusion

Kevin Kee and Shawn Graham (2014, p. 275) state persuasively that “code determines the rules of the game...And if the rules promote a particular way of looking at the world...then we need to understand which rules, which games, best embody the historical”. The thesis determines that the rules bound into *HoIIV*'s NFTs produce partial and curated historical representations of the origins of the Second World War that can be defined as authentic-lite rhetoric.

This review has grounded the thesis within relevant scholarship across history and game studies. The emergent discipline of historical game studies is a fruitful area of enquiry. While some research examines the implementation of digital games in educational environments, there is a significant trend that explores the medium as its own form of history (Uricchio, 2005). The focus of this work argues that digital games offer unique interpretations of history. The study of this representation forges unique formal frameworks for analysing historical digital games (Chapman, 2016). In this literature, the concept of developer-curators embodying a multi-faceted role of historian, curator, and game designer, is a core component of the thesis's theoretical contribution. The review has also considered literature surrounding the origins of the Second World War. Popular history literature, proliferated to a mass audience in the twentieth century, emphasises the pivotal role of nations, individuals, and landmark events in the lead-up to an inevitable conflict. Finally, the review demonstrates how Kempshall's authenticity lite (2015) and Bogost's (2007) procedural rhetoric are crucial concepts that are appropriated to form authentic lite rhetoric. This innovative concept is understood as partial and curated expressions of history created by both a digital game system and its visual components. The interdisciplinary study of the NFTs in *HoIIV* is founded on the establishment of new historical knowledge born from historical game studies and game studies research. Through this research, authentic-lite rhetoric offers a unique interpretation of history on an underrepresented aspect of an underrepresented digital strategy game.

Chapter 4: Methodology

Digital games are composite products constructed of code, data, and visual and textual elements (Aarseth and Calleja, 2015; Arjoranta, 2014; Kingsepp, 2006, p. 60). However, digital games also exist within paratextual cultures; discourses that represent the object outside of the game space (Stuckey, 2017, p. 43). Paratextual sources convey the historical interpretations of a digital game system in divergent ways, allowing the thesis to consider alternative approaches. This chapter outlines the thesis's interdisciplinary methodology, consulting digital game data and paratextual material in a textual and systemic analysis of *HolIIV*'s NFTs. The approach is partly directed by historical game studies literature on technology trees, causality, and historical description. The methodology also approaches paratexts. The online website HOI4 Wiki is the dominant paratextual source in this research. Maintained by both developer-curators and players, HOI4 Wiki provides an accessible archival footprint of the entire contents of *HolIIV*. Through a textual analysis, the thesis illustrates how HOI4 Wiki allows anyone to examine the NFTs' multi-layered expressions of textual and computational interpretation. Alternative paratexts, such as online forums, oral history contributions, and developer-curator made walkthroughs, are considered as supplementary materials that convey curated interpretations within the NFTs. In order to synthesise this methodology, the chapter illustrates how the thesis will access the NFTs without play as a component of a thesis-wide analytical thought experiment. The research will gain nominal in-game access. However, by exploring the NFTs through HOI4 Wiki, the thesis does not adopt play as a methodology, acknowledging game preservation discourses on our diminishing access to digital games.

Causality, Determinism, and Description, in the NFTs

The thesis examines the textual and computational components of the German Reich, Soviet Union, and United Kingdom NFTs. This narrow sample size is offset by the significant depth of these NFTs, among the most extensive within *HolIIV*. Their

depth reflects the developer-curator's perspective of the nations' historical importance as faction leaders (DeadHeat16, 2020). The progression of history from the perspective of these three nations is deliberately curated into complex branching and interlocking structures. The content and construction of the NFTs should be considered as significant expressors of partial and curated historical interpretations, made by developer-curators, that disseminate popular historical narratives about the origins of the Second World War.

There is a wealth of scholarship on the historical implications of technology trees as systems of linear and universal technological representation (Apperley, 2013, p. 187; Chapman, 2013a, p. 66; Galloway, 2006; Squire, 2004; Urrichio, 2005, p. 328). This work, approaching the visual, textual, and systemic components of technology trees, partly informs the thesis's analysis of the NFTs. Historical arguments are created not only by the NFT's visual and textual interpretation of the past, but also by its algorithm. For instance, Chapman (2013, p. 328) calls *SMCIII*'s algorithm a "valid tool for expressing the meaning of the evidence of the past". This statement represents a significant methodological perspective where a dual conception of the NFTs can be made. Alongside historical claims regarding the structure of the past through image or text, the NFTs also possess computational processes which actively make persuasive interpretations about how history progressed. This view reinforces the NFTs as 'engines of causality': simultaneously a platform for interpretations on historical progression over a limited timeframe, and a set of game mechanics that only function to improve the player's in-game position. The NFTs decisively propel the player through history and through the game towards an inevitable conflict. In this tension between game mechanic and historical representation, expressions of authentic-lite rhetoric are disseminated. The interpretations made by *HoIV*'s computational processes and its textual data are dynamically historical and ahistorical and are definitively constructed by developer-curators who implement recognisable historical narratives with pragmatic considerations for game design, commercial practices, and audience participation.

Historical game studies scholarship on technology trees intersects significantly with research on technological determinism and historical causality. These are two distinct, but related concepts that also offer important methodological approaches. By its design as a technology tree structure, the NFTs partly represent the history of the Second World War through increasing technological capacity. This narrative of consistent progress expresses the concept of technological determinism (Dafoe, 2015, p. 1047; Kline, 2001, p. 15495; Winner, 1977), historically attributed to nineteenth century 'whig' history which stressed the growth of liberty, parliamentary rule and religious tolerance (Butterfield, 1965, p. 3; Pritchard, 2010, p. 91; Sullivan, 2009; Wilson and Ashplant, 1998). As a game mechanic of player progression, the NFTs adhere to the view that technological innovation can be determined and mapped (Wyatt, 2008). Simultaneously, they argue that technology can only improve over time. This perspective of history as constant progress has been heavily criticised (Waring, 2010, p. 283). Similarly, Edward Hallett Carr's (2001, p. 81) conception of history as "a study of causes" is a useful perspective. The NFT's multiple divergent branches that tie events in a determinable sequence illustrate that, when considering the causes of a historical event, a historian – or a developer-curator – "deals in a multiplicity of causes" (ibid, p. 83). This view is useful when considering how the developer-curators parse the notion of historical contingency and create a linked structure of events. Through exploring how the NFTs present multiple interrelated historical interpretations on the causes of the conflict, the thesis follows Hayden White's (2000, p. 402) conception of historical research as "the political and ethical implications of different modes of interpreting history". The developer-curators present a subjective and curated summation of how the conflict occurred, not conforming rigidly to "a standard of objectivity and impartiality" (ibid). Instead, the NFTs convey an editorialised snapshot of the epoch. By considering determinism and historical causality as related concepts, the thesis can more effectively understand *Holliv's* systemic and textual claims that the 1930s was destined towards an inevitable conflict.

The thesis also explores historical description within the NFTs. Textual descriptions, taking the form of small contextualising paragraphs, accompany individual focuses

when clicked on by the player (Figure 8). This text is highly functional, instructing the player on the historical context of a given event. Christopher McCullagh (1984, p. ix) states that “although historical descriptions can never be proved true...it is nevertheless often reasonable to believe that they correctly describe what has actually happened”. Historical descriptions can be defined as short expressions of history (Neely, 1988, p. 689), that are “true in a correspondence sense” but are not empirical statements (McCullagh, 1984, p. 8). This conception of historical description frames the NFT’s textual descriptions as digestible encapsulations of historical events for a mass audience. This is useful when considering that the NFT’s expressions of authentic-lite rhetoric are built on recognisable narratives constructed by general historical literature produced since 1945. The NFT’s historical descriptions are bitesize portions of authentic-lite rhetoric. By giving explicit textual context to each focus, the system’s hidden computational processes are also linked to curated narratives that are disseminated to the player.



Figure 8: Illustration of the multiple textual layers of the United Kingdom NFT.

HOI4 Wiki and the NFTs

Paratexts hold a multiplicity of meaning (Consalvo, 2007, p. 9). Gerard Genette (1997, p. 2) defines paratexts as an “undefined zone” between the inside and the outside of literature. This is a useful concept, but it is limited to literary theory.

Within popular culture studies, Jonathan Gray (2008; 2010) examines the role of merchandising, trailers, and podcasts in the production of meaning for a film or television series. In historical game studies, Esther Wright (2017; 2019) persuasively explores how digital game companies such as Rockstar Games construct their external identities through paratexts that borrow imagery from American cinema. Through this work, paratexts are pragmatically understood as supplementary material that project a specific image of a popular culture object to audiences (Barker, 2017). Yet, paratexts are a wide range of communications and artefacts pertaining to digital games derived from official and unofficial sources (Apperley, 2013, p. 191). The thesis ultimately defines paratexts as “official and unofficial supplementary materials that elucidate upon a digital game and its contents while existing outside of the game”. This definition highlights the divide between official and unofficial materials and understands the often-ephemeral nature of paratexts.

The thesis contends that paratexts can be categorised as ‘fan-made’, ‘developer-made’, or a hybrid involving fan and developer participation. This distinction has important methodological consequences surrounding perspectives on how paratexts are created, who they are created for, who they are created by, and why they are created. These queries represent important fissures within participatory culture between content creators and consumers (Jenkins, 2008; 2013, p. xxi). These questions are also considered within game preservation perspectives, with scholars identifying a matrix for understanding a range of fan-made and developer-made paratexts associated to digital games, such as downloadable content, patch notes, marketing materials, gameplay video, walkthroughs, interviews, and wikis (Smith, McConnachie and Burnside, 2020). This matrix illustrates the divided authorship within paratextual material and highlights the depth of sources that can be consulted when researching digital representations of history. The visual content of a digital game is just one component of many potential expressions of historical interpretation. The matrix also highlights the wealth of materials that elucidate upon a digital game that can be consulted if play is not a possibility, due to practical or legal issues of access (Newman, 2012). This is an important consideration for the

thesis's experimental methodology of non-play that is discussed later in this chapter.

The thesis utilises the website HOI4 Wiki as the dominant archival source of textual and systemic information for *HoIIV* and its NFTs. The fundamental usefulness of the HOI4 Wiki is its archival footprint of in-game content. As a “repository” for in-game information, almost all of the game's previous and current content is archived and freely accessible in the wiki (SolSys, 2019d). As a consequence, the entire in-game textual and systemic contents of the NFTs are available to anyone. In terms of time-management and practicality, the openness of HOI4 Wiki produces an immediate and expedient source, especially when compared to accessing *HoIIV* directly. Therefore, instead of utilising the game directly to examine the NFTs, as illustrated by Figure 8, the thesis uses HOI4 Wiki as a primary source, while *HoIIV* offers supplementary support. This perspective does not diminish the game's capacity to demonstrate how its computational systems and text interpret the origins of the Second World War. It is an affirmation that HOI4 Wiki is a functional source that provides an alternate perspective on ‘seeing’ the game, illuminating how the NFTs presents a curated textual and systemic image of history.

Online wikis are an integral component of a contemporary gaming culture which favours the constant exchange of content, but also prioritises storages of information about digital games (Deeming and Murphy, 2017, p. 79; Navarro-Remesal, 2017, p. 129). This perspective is alluded to on the homepage of HOI4 Wiki, where it is described as “a repository of *Hearts of Iron 4* related knowledge” (SolSys, 2019d). Deploying the term ‘repository’ implies that participants on the wiki understand the historical significance of documenting and preserving the contents of the game and its changes over time. Traditionally, online wikis have been the preserve of fans, operating as user-friendly and unofficial technologies to document gaming history or trivia (Deeming and Murphy, 2017, p. 79; Navarro-Remesal, 2017, p. 129). For example, on the *Fandom* website, there are hundreds of thousands of online fan-made wikis for digital games, television shows, and films (Fandom, 2020). On this site, the *Hol* series has one small, incomplete wiki serving

the entire series (Akamichi, 2015). In contrast, HOI4 Wiki is a distinct hybrid paratext involving the input of both fans and developer-curators. Notably, there are reliability considerations to be made for a source that anyone can contribute to (SolSys, 2019d). This open and democratic mantra to disseminating information about the game is a continuation of Wikipedia's proliferation of a global online encyclopedia that can be maintained by anyone with internet access (Bruns, 2008, p. 103; Jenkins, 2008, p. 265). However, unlike fan-only online wikis, PDS own, moderate and contribute to the content of independent wikis for each of their titles, including HOI4 Wiki. Although authenticated users outside of PDS are permitted to make edits to the page, as well as anonymous users whose edits are categorised by IP address, they are all moderated and maintained by developer-curators. This moderation differentiates HOI4 Wiki as a reliable and distinct online wiki source that is maintained by the personnel involved in creating the game specifically as an archive.

Through a textual analysis of HOI4 Wiki, the thesis can understand how the NFT's text and system processes project curations of accepted narratives associated to the origins of the Second World War and produce expressions of authentic-lite rhetoric. HOI4 Wiki will be read and understood through a close reading, where the text is "torn to pieces and reconstituted by a reader who is...a demolisher and a constructor" (Van Looy and Baetens, 2003, pp. 9-10). Yet, it is useful to contextualise how HOI4 Wiki can be navigated. The wiki is an accessible online portal where *HoIIV's* contents are displayed. HOI4 Wiki is a uniquely structured document, however each individual page bares similarity to a textual Wikipedia article that includes images. Within each article, hyperlinks connect out to other pages within the wiki. There is a search bar at the top of HOI4 Wiki that allows a user to input text to navigate to a different page. As illustrated in Figure 9, HOI4 Wiki contains a side bar on the left of the screen where specific links can be accessed. The 'Page Information' link is particularly significant, outlining individual changes made to specific pages within the wiki, and also logging these changes to the page's internal data. This page allows researchers to exactly determine when a change was made to the wiki, who authored the change, and what the change

consisted of. Furthermore, the ‘Recent Changes’ tab, located on the left-side menu, enables users to examine a log of edits to topics and pages (Figure 9). Most of the entries to an article’s ‘Page Information’ reflect changes to the website’s format. However, the changes made to HOI4 Wiki that are directly associated to in-game content are available to researchers, allowing pages to be referenced on the exact day that they were edited. Consequently, as *HoiIV* evolves over time, the HOI4 Wiki is updated to reflect the game’s changes. The content of the game’s previous iterations and game states are available through HOI4 Wiki’s extensive public archive (Deeming and Murphy, 2017, p. 79). This allows researchers to explore the origins of its present contents and track edits to the wiki across multiple years. Understanding the functionality of HOI4 Wiki is critical to understanding how the thesis utilises and adopts the wiki as a highly significant component of its methodology.

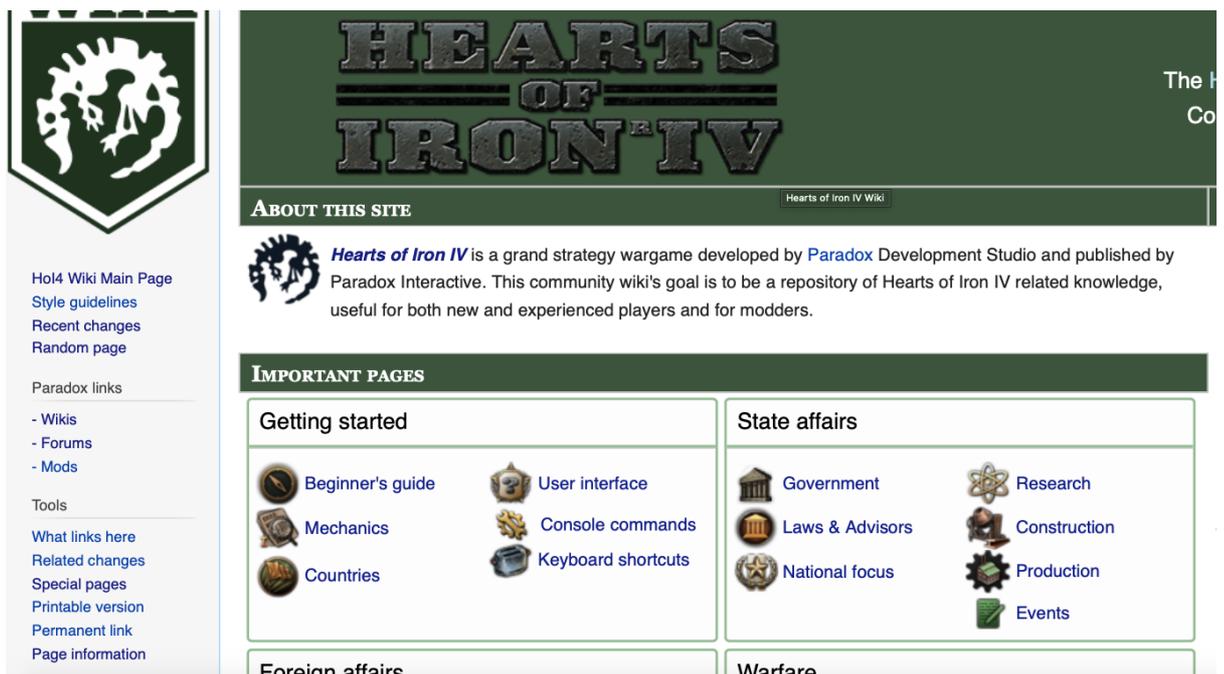


Figure 9: The homepage for HOI4 Wiki.

HOI4 Wiki simplifies accessing the textual and systemic data of the NFTs. By accessing the contents of *HoiIV* directly, researchers would need to navigate and read the NFTs in-game. This approach is complicated by the multi-layered construction of the NFTs. As illustrated in Figure 8, when clicking on a specific focus,

further information is laid out to the player in a pop-up tooltip box. The title of the focus is shown at top of this tooltip. Beneath the title, a small box contains the focus' 'Completion Time' out of seventy days. Underneath this box, there is text stating any systemic prerequisites needed for the focus to be completed. A contextual and historical description for the focus is provided beneath. The final line of text in the tooltip states the subsequent system effects of completing the focus. When examining the NFTs curated interpretations of the outbreak of the Second World War, the latter three lines of text are highly significant. The stated prerequisites for accessing the focus, and the specified effects of completing the focus, illustrate how the developer-curators link external and hidden computations to historical landmark events. Through the contextualising text, the tooltip provides the player with a personal sense that their in-game actions are impacting upon the epoch.

However, all information that can be found in the NFTs is also accessible in HOI4 Wiki. The textual and systemic content of each unique NFT is listed on its own page (AkatsukiEmpire, 2019a; 2020a; Deadheat, 2016a). The NFTs are presented in four columns in HOI4 Wiki: the title of the focus, its prerequisites, the systemic effects of completion, and a historical description (Figure 10). HOI4 Wiki simplifies the multi-layered content of the NFTs, making the historical text and computational impact of each focus immediately readable. This transforms the approach of the thesis. Far from needing to access the game directly and navigate through a multi-layered interface, HOI4 Wiki allows instant access to the computational and textual properties associated with each focus.

Focus	Prerequisites	Effects	Description
	<p>United Kingdom:</p> <ul style="list-style-type: none"> Is at war with  Germany  Poland: is not in faction with  Germany [Expand] <p>The following will bypass the focus: [Expand]</p>	<p>United Kingdom:</p> <ul style="list-style-type: none"> If DLC  La Résistance is not enabled: <ul style="list-style-type: none"> 3x 100% research bonus for: Decryption methods and Computing technology. Otherwise: <ul style="list-style-type: none"> We will gain +10 Decryption Speed 	<p>The Poles have been developing a brilliant machine they call the 'Cryptologic Bomb' which can break the German Enigma ciphers. We have the resources to develop it further at our Bletchley Park facility.</p>
	<p>None</p> <p>The following will bypass the focus: [Expand]</p>	<p>United Kingdom:</p> <ul style="list-style-type: none"> Random owned controlled cored state: <ul style="list-style-type: none"> Add 2  Building Slots Add 2  Civilian factory Random owned controlled cored state: <ul style="list-style-type: none"> Add 2  Building Slots Add 2  Civilian factory 	<p>The recent stirrings from Germany and other Fascist powers around the world suggest that we may not enjoy peace in our time. In preparation, we should begin to set the pieces in motion for our own rearmament if the situation gets any worse.</p>
	<p>United Kingdom:</p> <ul style="list-style-type: none"> Requires the following: <ul style="list-style-type: none">  Limited Rearmament One of the following must be true: <ul style="list-style-type: none"> More than 5%  World Tension At War Current Ruling Party is not  Democratic If DLC  Man the Guns is enabled: <ul style="list-style-type: none"> Has the national spirit  No Further Appeasement. <p>The following will bypass the focus: [Expand]</p>	<p>United Kingdom:</p> <ul style="list-style-type: none">  Air experience: +25 Add maximum  Anti-air in East Anglia (123), Sussex (125) and Cornwall (127). <ul style="list-style-type: none"> If there are no free building slots, They will be placed in a random owned controlled state with priority in the British Isles. 	<p>There is no question of where the enemy will be coming from; we must protect the coast with extensive anti-air batteries.</p>

Figure 10: HOI4 Wiki's layout, illustrating a selection of focuses on the United Kingdom's NFT.

Alongside the archival of *HoiIV*'s current and legacy content, HOI4 Wiki also contains the game's patch notes. This pool of sources offer a crucial insight into how the game has changed over time, and how these changes are reflected to the audience. Patch notes represent an important form of paratext (Carter, 2014; Consalvo, 2007). Also known as changelogs or hotfixes, patch notes are technical documents detailing changes to the game system (Svelch, 2016, p. 307). In the context of *HoiIV*, there is little difference between patches and hotfixes; while patches "fix bugs and/or implement balance tweaks", hotfixes "are very small updates to the game that usually fix only a few bugs and may contain a few changes to the game as well" (Simon 9732495, 2020). Recent game studies scholarship has focused on the rhetorical and persuasive aspects of patch notes (Paul, 2010; Sherlock, 2014, p. 166). This understanding has importance for the thesis. Details of patch notes and hotfixes illustrate how the simulation drastically changes its modelling of historical events within the NFTs across its lifespan. For the purposes of the thesis, HOI4 Wiki operates as the definitive archive of *HoiIV*'s patch notes, significantly conveying alterations made to the game over time. Through the patch notes, the thesis is able to examine when changes were made to the curated interpretations inside the NFTs, and their impact on the simulation of history.

HOI4 Wiki also operates as a hub for accessing developer diaries from PDS. Written by members of the PDS development team and posted onto online forums, developer diaries are an extremely valuable source. The first *HoiIV* development diary was published on 7 February 2014 and announced work on the upcoming title (podcat, 2014). Developer diaries are an antithesis to patch notes, operating as public declarations of what future historical content will be, rather than a documentation of current content. Developer diaries discuss the design decisions made by PDS, providing a resource that examines the game over a long period of time during its development as an unfinished product. For instance, in a developer diary entry from 16 January 2015, Lind announced a system for the game called 'National Goals' (podcat, 2015). The national goal was:

“a promise or mission to the nation. Picking one will cost you political power, but you’ll usually get it back...It might be a specific historical goal...or something more loose, like a campaign of improving the nations roads” (ibid).

This statement illustrates how the national goals system, as a structure of ‘historical’ goals, was an early mechanical precursor to the NFTs. In a screenshot of *HoIIV* taken from the developer diary, the German Reich’s national goals are listed in a side menu (Figure 13). *HoIIV*’s developer diaries are valuable documents that perform two functions. Firstly, they illustrate insight into the development process; by talking publicly to the forums, developer-curators are able to gauge how the audience digests proposed gameplay additions. Secondly, they function as an archive of previous iterations of the game that do not make it to public consumption. Through HOI4 Wiki, the developer diaries are an accessible archive of insightful design material of *HoIIV* in pre-development and post-development. The significant quantity of developer diaries archived through HOI4 Wiki allows the thesis to call upon an accessible base of digital game interpretation and design directly from the development team. This demonstrates the utility of HOI4 Wiki as a significant site of information on the development and content of *HoIIV*.



Figure 11: Early in-game designs of the scrapped ‘national goals’ system.

Alternative Paratexts

The thesis also consults alternative fan-made and developer-made paratexts which are not directly connected to HOI4 Wiki. There is a wealth of fan-made paratextual content that is predominantly proliferated through the internet on online forums and video-sharing websites such as YouTube. This work embodies Jenkins's (2013, p. 152) conception of fans "scribbling in the margins", producing content made outside of the game's internal development (Jones, 2008, p. 47). Fan-created paratexts elucidate on how videogame culture persists as a phenomenon and positions fans as engaged parties in game history (Jenkins, 2013, p. 28; Paul, 2010; 2012; Stuckey, 2017; Swalwell, Stuckey and Ndaliansi, 2017). YouTube videos visibly illustrate how the NFTs of different nation's function and operate during a campaign (Alex the Rambler, 2017; 2017a; 2017b; 2019; 2020; quill18, 2020; 20201). These videos convey how these digital documents are approached, understood, and played, without personal access to the game. PDS occasionally upload their own videos that explore the NFTs (Paradox Grand Strategy, 2017; 2018; 2020). However, this content is predominantly made by fans. Victor Navarro-Remesal (2017, p. 129) argues that digital game culture favours an exchange of information through social media, with fans documenting gaming history and managing their heritage through creating video walkthroughs. This analysis is persuasive; fans create an archive of social and cultural history by uploading their own footage of playing digital games, "preserving portraits of the game as a designed experience" (ibid, p. 331). Examining public gameplay videos uploaded to the internet enables historians to consider an ever-changing archive of digital games (Monnens et al, 2009, p. 145). Even when *HoIIV* becomes totally unplayable, fan-made video content serves as an archive to explore the content of the game without the function of play.

Similarly, online fan forums provide a constant barometer of fan interaction within a digital game. Conversations in the PDS-moderated *HoIIV* forums frequently centre

on the game's portrayal of historical verisimilitude, expressing their agreement with, or distaste for, changes that impact on the historical authenticity of the simulation (Apperley, 2013, pp. 193-194; currylambchop, 2019; GeneralVikus, 2019; SirL, 2019). Forums outside of PDS's direct control, such as those found on Reddit, offer more critical and uncensored comments on the game (ToonCrazy44, 2019; KaiserVitu, 2020; Tugboat_Blu, 2020). Despite this casual and less formal environment, the impact of the game's interpretations of the Second World War are still discussed (A740, 2017; EV4gamer, 2020). Fan forums are a useful supplementary source base which help to reflect the wider impact of popular culture on audiences (Caine, 2010, p. 87). Within online communities, fan forums simultaneously reconfirm and oppose how the curated historical interpretations of *HoIIV*'s NFTs are interpreted by the players.

In contrast to the abundance of fan-generated paratextual material, developer-generated paratexts provide a smaller pool of consistent and reliable sources which are more closely associated to the construction of *HoIIV*. This consistency is partly created by the professional demands of content-generation, as opposed to unfiltered expressions of free speech presented through unmoderated online forums. As PDS is situated in Stockholm, Sweden, it is difficult to access an archive in-person. Consequently, interacting remotely with the developer-curators represents a useful, albeit limited, original paratextual source that bypasses this issue. Oral history research is a useful approach that allows researchers to investigate how people view their own lives and their relationship within history (Portelli, 1981, pp. 99-100; Abrams, 2010; Berger and Niven, 2014; Tumblety, 2013). The use of oral testimony in this thesis adds context to the deliberate design of curated historical interpretation within the NFTs. Two members of PDS, Dan Lind and Drikus Kuiper, were interviewed for this thesis (Appendix 1; Appendix 2; Appendix 3). The interviews were conducted remotely over email questionnaires. In total, twelve questions were formulated and proof-read by the author. Each question was open-ended, enabling participants to volunteer their own detailed qualitative responses. The email questionnaires were sent back to the interviewees for final checking, with no redactions made by the participants. Consent for the

questionnaires was sought and received during the whole process. Incorporating an oral history component allowed the thesis to gain insight into the practicalities of historical game development, and how the developer-curators personally conceived of how *HoIV* portrays the epoch.

HoIV does not give explicit in-game description of how developer-curator team understand the history of the mid-to-late 1930s. However, digital game manuals offer a significant paratextual source exploring how a game can – or should – be played. In previous decades, digital games would include a physical manual, giving the player an overview of a control scheme, and occasionally containing short contextualising descriptions of the game world (Totilo, 2017). From 2010, physical and digital game manuals were gradually phased out by videogame companies to be replaced by digital-only documents that were cheaper to produce (ibid). There is no game manual for *HoIV*. However, the *Hearts of Iron IV: Advanced Guide for Beginners* (Goodfellow, 2016) performs a similar function; a digital guide created by members of PDS that discusses beginner strategies for playing the game, such as highlighting effecting methods for military planning and detailing game mechanics (ibid, pp. 44-45). The guide’s text is also useful for elucidating upon how the developer-curators understand the historical context of the epoch. Critically, while the *Advanced Guide* does not perform this function directly, contextual historical text is present in the digital game manual for *HoIII* (Hanks, 2009, pp. 7-10). As both games consider the same period, this earlier manual adequately frames the history of the period. The first sentence of *HoIII*’s manual positions the Second World War as an inevitability: “The odour of war was in the air throughout Europe and East Asia in the mid-1930s” (ibid, p. 7). This line strongly demonstrates that *HoIV* was created within a historically recognisable notion of an inevitable war, and there is a clear similarity between this rhetoric, and statements within *HoIV*’s advanced guide (Goodfellow, 2016). These digital guides serve as sources that connect to the developer-curators’ own perspectives of the game’s historical content and the ideological arguments they ultimately present to the player.

Access, Play, and *Hearts of Iron IV*

Through a methodology that utilises HOI4 Wiki as a primary paratextual archival source related to *HoIIV*'s NFTs, the thesis is not bound by issues of accessibility. However, considerations must be made regarding an experimental approach to exploring the game without direct access. As such, the thesis presents the methodology as an analytical experiment that supposes that our ability to play the game is significantly restricted. This is a vital perspective of academic game preservation work (Newman and Simons, 2020). While *HoIIV* is still available to play as of writing the thesis, it does not mean that we should not ignore contemporary contexts that have seen digital games being made unplayable through the games industry's relationship with technological obsolescence (Newman, 2012; GDC 2016). Although the game can be nominally accessed, for purposes such as taking in-game screenshots, there is no explicit requirement for the research to conduct repeated structured or unstructured playthroughs. When necessary, the thesis used a personal copy of *HoIIV* for reference. The game was purchased for £34.99, and a personal Microsoft computer system was used to access its contents. Discussing the relationship between the minimum specifications of PC systems needed to access of the game and the tangible effect this has on how history is portrayed is not within the scope of the research. However, it is useful to identify that the title is not hardware-intensive; by consulting *HoIIV*'s listing on online storefronts, modern PCs can run the game competently (Steam, 2016). This thesis is not concerned with exploring the technical differences of the game between Apple, Linux, and Microsoft operating systems, though forum discourses do broach the subject (GPounda, 2019; Grzybek, 2019). Distinct differences in *HoIIV*'s performance would only be necessary in a broader study that explores the game's visual representations of the Second World War. Some historical game studies scholarship has conducted this work, focusing on the visual inaccuracies of military uniforms or paraphernalia found in digital games (Kingsepp, 2006, p. 71; Payne, 2010, p. 124). Whilst these differences are outside of the scope of the work, they do allude to the innate instability of digital games as a medium. The same digital game that could be released on a Microsoft Windows system would be totally unplayable on an Apple

system. These differences are crucial to a wider understanding that our access to digital games is determined numerous tangible and significant factors that, taken together, form a complex picture for methodological consideration.

If the thesis was to approach the NFTs directly as a primary methodology, an assumption could be made that in order to understand the curated historical interpretations embedded into the NFTs, we must play the game. Through utilising HOI4 Wiki as a dominant archive of information on the systemic and textual properties of the NFTs, the thesis offers an approach that diverges from this assumption. Play is not necessary. In contrast, to Chapman's (2017) conception of "playing history", and wider notions of playing the past as a form of analysis (McCall, 2011; 2016), the thesis demonstrates that play is not a prerequisite analysis in understanding how digital games represent history. The thesis offers an experimental methodology that places play as ancillary, rather than a dominant approach.

The thesis's methodological position on play is intentionally contentious, representing a contrast to accepted methodologies within game studies. Veli-Matti Karhulahti and Rainse Koskimaa (2019) identify a matrix of twentieth century literature that illustrates how play theory forms the basis of contemporary game studies scholarship. This work, historically situated outside the realms of digital game study, is crucial to how game studies research identifies itself as a discipline. For Johan Huizinga (1955, p. 211), play was a primary expression of culture, central to human life and at the core of human experience (Rodriguez, 2006). Roger Caillois (2001, pp. 9-10) identified six distinct characteristics of play (Eskelinen, 2001). Bernard Suits (2005, p. 176) understood play as the fundamental tenet of utopia; an ideal existence solely devoted to play (Cooper, 1982, p. 409). Brian Sutton-Smith (Sutton-Smith and Avedon, 1971, p. 6) argues that play is "an exercise of voluntary control systems", emphasising that play was "like language: a system of communication and expression" (Sutton-Smith, 1997, pp. 218-219). These texts form the foundational concepts of the contemporary discipline of game studies (Castronova, 2004; Dormans, 2006; Klabbers, 2009; Lehdonvirta, 2010; Salen and

Zimmerman, 2004, p. 30; Thornham, 2011; p. 30; Zagal and Burckman, 2008; Wright, Boria and Breidenbach, 2002; Deterding, 2015; Ensslin, 2014, p. 23; McBride, 1979, p. 59; Shea, 2013). Play is still set as a primary methodology of contemporary game studies. Aarseth (2003, p. 7) argues that “playing is essential”, stating that game scholars should “excel” in the games they analyse with “an obligation to understand gameplay”. Mia Consalvo and Nathan Dutton (2006) identify a “preliminary template” for critical textual game analysis through play. Similarly, Anable (2018, p. 3) contends that researchers should become lost and disorientated in digital games in order to reach deeper critical insights. Anable calls this methodology “spelunking”, the process by which a scholar becomes intimately connected to the content of a game by digging into its content (ibid, p. 3). The study of digital games is founded on a unique understanding of enacting play as the discipline’s core methodology (Frasca, 2003, p. 221).

Historical game studies scholarship also advocates for play. Alexander von Lünen (2019, p. viii) privileges the study of representations of history in digital games through play. Yet, von Lünen also argues that “play could be (re)established as a category in historical scholarship” (ibid, p. xviii). Far from needing reestablishment, play is already an established methodology in scholarship exploring the representations of history in digital games. For instance, Rachael Hutchinson (2019) illustrates that historians can gain an understanding of Japan’s cultural history through material objects, such as household and religious items and popular art, which are visually presented within Japanese digital games (Hutchinson, 2019, p. 2 and pp. 21-47). Similarly, Diane Carr (2007, p. 225) posits that a digital game’s representations of the past emerge decisively through play. Chapman (2013, p. 315) states that the most effective approach to studying history through digital games is tied up in a combination of play and historical analysis. The overriding message of this scholarship suggests that the highest form of research is “essentially play” (Scarfe, 1962, p. 120).

The thesis is built upon a contrasting notion. Play is not a central methodology. This work is a thought experiment conducted through methodology and does not

relegate play as an unimportant analytical endeavour. Instead, the thesis approaches *Holliv* through an understanding that the consequences of ‘not playing’ digital games are highly relevant within game preservation studies and contemporary game industry contexts. This mode of scholarship finds effective methods to approach digital games without play (Aravani, 2016; GDC, 2016; 2019; McDonough et al, 2010; Monnens et al, 2009; Swalwell, 2017). In part, game preservation studies argues that digital games are not simply playable entities; they can be understood as fragments of data and code and physical objects which are reinterpreted in unexpected ways by collectors, players, and fans (Simons and Newman, 2018, pp. 13-14). James Newman’s work on game preservation (2012; 2013a; 2018; 2019) is highly useful when considering how a digital game can be understood without play. One of the author’s most valuable claims surrounds the mass disappearance of digital games, plainly stating that all games will eventually become unplayable (ibid, p. 1 and pp. 16-17). Unplayability is baked into the medium. Physical games media is subject to degradation. For example, the plastics used to create consoles discolour and disintegrate over time (Simons and Newman, 2018, pp. 12-13). Conversely, the digital aspects of the medium are at risk, especially with contention surrounding the use of emulation as a legitimate, and legal, form of preservation (Newman and Simons, 2020). Furthermore, digital game publishers often make their older titles unavailable to the public. In 2019, *Lego: The Lord of the Rings* (Traveller’s Tales, 2012) and *Lego: The Hobbit* (Traveller’s Tales, 2014), were removed from all digital storefronts without warning (Phillips, 2019). Previous iterations of a digital game can also be lost in the development process if not fully preserved. The development of the *Spyro Reignited Trilogy* (Toys for Bob, 2018), a reimagining of the three *Spyro the Dragon* games original released on the PlayStation, was initially delayed due to the loss of original design documents and code (Garst, 2018).

As a consequence of planned and unplanned obsolescence in the digital games industry (Newman, 2012), historians and game studies researchers need to find new ways to explore digital games without play. By utilising a paratexts such as HOI4 Wiki, the thesis demonstrates an alternate method for understanding *Holliv*’s

historical interpretations without access. The thesis promotes a divergent approach for other scholars to understanding a digital game through a unique form of paratextual source. This approach also bypasses a potentially laborious process of directly accessing previous versions of *Holliv*. Before 1 October 2018, those who wished to access older versions of PDS titles needed to utilise a cumbersome workaround concerning file management within their computer system (GMMan_BZflag, 2017). This protocol for accessing an older iteration of *Holliv* was a significant hurdle for research. However, from 2018, PDS have made it easier for players to access previous public versions of their titles through an opt-in system on online storefronts (Pennington, 2018a). This change coincides with the development and implementation of the General Data Protection Regulation (GDPR) in the United Kingdom on 25 May 2018. In order to comply with new GDPR regulations, on 1 October 2018, previous versions of PDS games were made available through online digital distribution services. These versions are protected through a password verification system where players are given specific codes allowing them to redownload older versions of *Holliv*. This approach of accessing different iterations of the game is also employed by the developer-curators. According to Lind (Pennington, 2018a), the developer-curators remain in dialogue with previous iterations of the game through a 'version control' system; software that manages different iterations of the game across development (Loeliger and McCullough, 2012, p. 1). This allows PDS to trace every change made within *Holliv* and preserve it (Magana and Muli, 2018, p. ii). Lind states that they "keep logs of every single change [to the game] since the first line of code was written", tagging "releases and important milestones" (Pennington, 2018a). As virtual assets become at increasing risk of becoming inaccessible (Winget and Murray, 2009, p. 2), it is useful for companies to retain older versions of their titles, storing all development information digitally (Andersen, 2012). Away from commercial perspectives, Lind believes that it is important to retain public archives of the previous versions of *Holliv* for preservation purposes (Pennington, 2018a). This approach helpfully preserves older versions of the title in an accessible archive. This work is not typically made by game development studios, therefore PDS have produced additional curation of the game by allowing players some access to these older

iterations of the game. Ultimately, by utilising HOI4 Wiki as a comprehensive archive of different versions of in-game information between version 1.0 and 1.5 of *HoIIV*, the thesis avoids these methodological hurdles and places significance on an innovative and experimental approach for understanding how a digital game's visible text and computation produces curated interpretations of history when access to digital games has never been more instable or contested.

Conclusion

This chapter has illustrated the varied, but focused, range of approaches to explore the curated historical interpretations within *HoIIV*'s NFTs. The thesis adopts a composite and interdisciplinary methodology through game studies and historical perspectives. Through technological determinism, and historical causality and description, the thesis understands the NFTs simultaneously as a complex expression of history on a set path, and as a twenty-first century game mechanic. The NFTs, as designed structures that systemically and textually make persuasive arguments, present the history of the period as an inevitable conflict with chartable improvements in technological and historical development.

Notably, the thesis distinguishes its methodology through a focus on paratextual sources. HOI4 Wiki, a source created and maintained by both fans and developer-curators, is a hub of almost all information on *HoIIV*. By navigating through HOI4 Wiki, researchers can easily view how the textual and systemic properties of the NFTs reflect curated expressions of the origins of the Second World War from the perspectives of the German Reich, the Soviet Union, and United Kingdom, ultimately producing unique expressions of authentic-lite rhetoric.

From a position that considers the mass disappearance of games (Newman, 2013, p. 1), paratexts such as HOI4 Wiki, forums and guides, and oral histories, are transformed into significant sources that expound upon the game even after our access is restricted. Through these paratexts, the thesis can explore the developer-

curator's intent for the NFTs and illustrate how *HoIIV*'s historical representations of the period are received by the audience. However, through exploring the NFTs of *HoIIV* predominantly through HOI4 Wiki, preservation is set as a central methodological consideration. Game studies scholarship is dedicated to play as a methodology. While acknowledging this important perspective, this research argues that play is not a necessity for analysing how the NFTs disseminate curated historical interpretations about the origins of the Second World War. By excluding play, reading the NFTs predominantly through HOI4 Wiki, and consulting a curated range of paratextual sources, the thesis produces a distinctive analysis of *HoIIV*'s NFTs.

Chapter 5: Curated History through Landmark Events: The NFTs and German Aggressive Expansion

The NFTs are game mechanics that attempt to model the “complex story lines and long-term options” of history (Bratyn, 2017). Grufstedt (2020) argues that the NFTs offer a plurality of ahistorical options for progression through the epoch. This thesis identifies that the NFTs project a path towards the Second World War through a historical scope. Through these digital diagrams, developer-curators link landmark historical events together, creating causal relationships between events and offering partial interpretations that certain historical phenomena could only occur if another event had taken place. The NFTs visibly and systemically operate as ‘engines of causality’. This evaluation of history is deliberately selective, producing unique expressions of authentic-lite rhetoric.

The NFTs are an integral component of experiencing the developer-curator’s editorialised historical narrative of the origins of the Second World War. De Groot’s (2016, p. 154) offers a valuable analysis that usefully contextualises this perspective:

“The consumption of history is both academic and fictional. The experience of the game is narrative and simulation, part of a fixed set of signifiers and simultaneously part of the sweep of history...The games expect a complicity of understanding and response from their players, and the ability to inhabit multiple identities and experiences”.

This understanding is useful for identifying *Holliv*’s NFTs as a “sweep of history” of landmark events across the epoch (ibid). Each focus within the NFTs constitutes “a fixed set of signifiers” recalling accepted historical narratives (ibid). De Groot’s statement is also relevant to the notion of authentic-lite rhetoric; a concept predicated on the duality of representing popular historical arguments and considering the pragmatic processes of creating digital strategy games as entertainment products. The NFTs echo this duality through a curated mix of fictional and historical references. Players consume history through the NFTs with

an open understanding of alternative-history and historical pathways as visible branching routes. Furthermore, restarting a campaign does not alter the historical content of the focuses; neither does it change the order in which they reside. Through their fixed construction, the player re-enacts the same curated historical or ahistorical events of an epoch (ibid; Rejack, 2007). While different events may happen across the course of a campaign, there is a limited number of programmed outcomes. The player is knowingly constrained by the historical events that are narratively curated by the developer-curators. The NFTs serve as a conduit through which partial historical interpretations about the relationship between landmark events across the epoch are made playable: a convergence point where the game's understandings about the origins of the Second World War are conveyed to the player.

This chapter examines how the NFTs, through system processes and textual information, disseminate authentic-lite rhetoric and display curated historical narratives about the origins of the Second World War. The NFTs reconfirm popular history understandings about the outbreak of the conflict. Predominantly, this chapter elucidates upon how Germany's aggressive territorial reclamation and expansion between 1936 and 1938 is depicted within the NFTs. The structure of the German Reich NFT is punctuated by three significant geopolitical and diplomatic events: the remilitarisation of the Rhineland on 7 March 1936; the Anschluss of Austria on 12 March 1938; the annexation of the Czechoslovakian Sudetenland on 30 September 1938.

The chapter will first explore the remilitarisation of the Rhineland. *Holliv* characterises the event as fundamental to the outbreak of the Second World War. Textually, the event is understood as an opportunity for the nation to break free from the historical legacy of the 1919 Versailles Treaty. In contrast, differing systems suggest that remilitarisation was the first decisive event which led to a global conflict instigated by an emboldened German Reich. Following this discussion, the thesis will examine how the Anschluss of Austria is depicted. The event is portrayed through recognisable historical narratives of a potential union

between the nations. The direct annexation is understood as a peaceful transfer of territory. The chapter also explores how the German annexation of the Sudetenland is illustrated through the German Reich NFT. The chapter also considers the system's historical perspective on the United Kingdom and Czechoslovakia through the policy of appeasement. Events within the NFTs illustrate an argument that the German Reich undertook an aggressive expansionist foreign policy against its European neighbours. The NFT restates popular narratives that Germany was purposefully travelling towards a major European conflict through significant acts of territorial gain. The German Reich NFT significantly concurs with accepted arguments that characterise the geopolitical changes forcibly enacted by Germany as a narrative of "the humiliated power of the Versailles Treaty" evolving into "the potentially glorious Third Reich" (Roberts, 2009, p. 3).

The Remilitarisation of the Rhineland

Economic historian Adam Tooze (2007, p. 1) argues that:

"Germany was chiefly responsible for unleashing the first shattering World War of the twentieth century. It was solely responsible for the second...Hitler and his regime extended the boundaries of war...unrivalled in its intensity, scope and deliberateness".

This perspective positions the German Reich as the catalyst for the outbreak of the Second World War. While this view is challenged by scholars of the war in Asia (Banhart, 1996; Gungwu, 2007; Iriye, 1992, p. 1), a broad and popular twentieth century foundation of historical literature concurs with Tooze's argument, placing Nazi Germany in a central role in the outbreak a European conflict (Eubank, 1975, pp. vii-xiv; Rich, 1992, pp. 3-10; Toynbee, 1975, pp. 3-16; Hobsbawm, 1995, p. 36). The German Reich NFT in *HoIV* presents systemic and textual interpretations that the nation was directly responsible for the Second World War, reproducing recognisable narratives that chronicle sequential aggressive territorial actions

against neighbouring nations between 1936 and 1938, actions that are understood by *HoIIV* as instigators for the inevitable Second World War.

The German Reich NFT models this historical narrative through the 'Rhineland Branch' (Figure 12). This chained segment of the NFT is the explicitly 'historical' model of the nation's history from 1936. According to HOI4 Wiki, the branch allows the German Reich to enact aggressive diplomatic annexation and war against other nations, including direct war with the Soviet Union (AkatsukiEmpire, 2020a). By descending through the 'Rhineland Branch', the player is able to access the 'Anschluss Sub-branch', led by the 'Anschluss' focus (ibid). This sub-branch allows Germany "to annex several states and ally with or declare war on several countries" (ibid). This text conveys an authentic-lite rhetoric that originates within popular history narratives. Hobsbawm (1995, p. 37) sets out an overarching timeline of aggressive militaristic moves by the three Axis nations, Germany, Italy and Japan, during the 1930s:

"The milestones on the road to war were the Japanese invasion of Manchuria in 1931; the Italian invasion of Ethiopia in 1935; the German and Italian intervention in the Spanish Civil War of 1936-39; the German invasion of Austria in early 1938; the German crippling of Czechoslovakia later in the same year; the German occupation of what remained of Czechoslovakia in March 1939 (follows by the Italian occupation of Albania); and the German demands on Poland which actually led to the outbreak of war".

Hobsbawm provides a chronological series of landmark geopolitical events that produced the Second World War. In *HoIIV*, the German Reich's NFT firmly reflects Hobsbawm's narrative. On the 'Rhineland Branch', the player can enact a series of linked focuses to permit the invasion of Austria and Czechoslovakia. Through this visible relationship between chained individual focuses, the NFT projects an argument of direct causality between events. Furthermore, through its composition, structure, and textual description, the 'Rhineland Branch' and 'Anschluss-Sub branch' simulate the period through a curation of popular historical narratives of German military and territorial aggression (AkatsukiEmpire, 2020a). These branches proliferate a widely accepted interpretation that the origins of war

were decisively set by Germany’s aggressive diplomatic expansion in central and eastern Europe. This curated interpretation reflects definitive expressions of authentic-lite rhetoric: the German Reich, as opposed to any other nations or actors, was centrally responsible for the outbreak of the Second World War.



Figure 12: Cropped screenshot of the ‘Rhineland Branch’ of the German Reich NFT.

Yet, in his estimation of the origins of the Second World War, Hobsbawm (1995, p. 37) significantly omits the remilitarisation of the Rhineland on 7 March 1936. In contrast, *HolIV* interprets this historical event as fundamental to the outbreak of war. The individual ‘Rhineland’ national focus represents this historical event on the NFT (AkatsukiEmpire, 2020a). The remilitarization of the Rhineland is one of the first decisions that the player can take. The position of the focus at the top of the diagram, also reflects the systemic relationship between the NFTs and *HolIV*’s starting date of 1 January 1936, suggesting that the developer-curators assign fundamental importance to the year in the history of the German Reich. By existing as the first available focus on the NFT, the game reaffirms historical claims that the German remilitarisation of the Rhineland was “the first capitulation” on the road to

war (Parker, 1956). *HoIV*'s initial history of the epoch is curated to focus on Germany addressing the demilitarised Rhineland zone. The native structure of the NFT presents the argument that remilitarisation was a primary ambition; by remilitarising the territory, Germany could move onto other geopolitical matters. Demonstrating this point structurally, the 'Rhineland' focus is the origin and root point for four branching paths that model Germany's expansion into eastern and central Europe (Figure 12). Through the NFT's visible and systemic composition, the remilitarisation of the Rhineland is an event that has a direct impact on the nation's future political, diplomatic, and military expansion. The authentic-lite rhetoric of the NFT's structure and systemic positioning of the 'Rhineland' focus argues that the remilitarisation of the territory "profoundly altered the balance of international relations in Europe" (Evans, 2005, p. 638).

Historical Significance of the Rhineland in the Nineteenth Century

The primacy of the 'Rhineland' focus at the top of the NFT also symbolically encapsulates the strategic and political importance of the territory. The Rhineland is a historically significant geographical area of the nation; research understands the territory as vital to maintaining a strong German industrial base and operating as a strategic faultline between different European nations. Before 1790, the territory was considered part of the Holy Roman Empire (Rowe, 2006, p. 616). It was a fragmented region where the smallest territories were "no more than glorified villages", yet it also included the ecclesiastical states of Cologne, Mainz, and Trier (*ibid*). James Hawes (2017, p. 92) argues that the political significance of the area dates back to the Napoleonic period. During the French Revolutionary Wars of 1792 and 1802, the territory was under French control; the Rhineland was partially subsumed by the country on 5 April 1795 as a result of the Treaty of Basel with Prussia (Forrest, 1989, p. 119). From 1806 until 1813, the region was considered a component of the Confederation of the Rhine, a collection of client states within Napoleon Bonaparte's First French Empire (Schmitt, 1983). However, the French maintained direct control of the Rhineland territory until 1814,

substantially developing and reconstructing the region (Rowe, 1999, p. 672). The Rhineland was “a secure source of supplies” for four French Revolutionary governments (Hayworth, 2019, p. 214).

Through the turn of the nineteenth century, the territory gained political and industrial significance. As a result of the 1814 Treaty of Paris, the Rhineland was given to the Prussians by the French (Hawes, 2017, p. 92). Hawes argues that the area was highly valuable to the economic and military successes of Prussia:

“what Prussia at first saw as a consolidation prize was perhaps the most advanced commercial and industrial area of the world outside Britain itself...and in Krupps’ new rifled-steel, breach-loading artillery (forged in the lands so fatefully given to Prussia by Britain in 1815), the Prussians possessed a step-change in military technology” (ibid, p. 92 and 100).

The Rhineland’s large industrial capacity was crucial in aiding Prussian developments in manufacturing and military technologies. Andrina Stiles (1989, p. 7) suggests that the Rhineland was an invaluable territory with enough industrial and political influence to cause significant financial and domestic unrest. In 1818, manufacturers based in the Rhineland complained to the King of Prussia, Frederick William II, threatening to strike over a perceived financial burden on home industry by duty tax increases and improved competition from foreign imports (ibid, p. 17). *Holliv* systemically reflects this historical perspective; the German state of Moselland, located within the demilitarised Rhineland territory, contains the nation’s largest reserves of steel and aluminium (Mister Analyst, 2019a). This curatorial decision to programme the territory possessing vital raw materials illustrates how the game system reaffirms historical arguments of the industrial capacity and development of the region during the nineteenth century. As a result, the developer-curators convey the area’s significance in the twentieth century as an established industrial base for the nation.

Remilitarising the Rhineland: Overturning Versailles

HoIIV is a game about the Second World War (Goodfellow, 2016, p. 3). However, the political outcomes of the First World War permeate throughout focuses within the German Reich's NFT. Catherine Cline (1988, p. 43) makes a convincing long-term causation argument that "Hitler's rearmament of the Fatherland, the remilitarisation of the Rhineland, the Anschluss with Austria, and the occupation of the Sudetenland were all significant attacks on the Versailles system". The historical description for the 'Rhineland' focus projects German public sentiments concerning the significance of the territory during the 1920s and 1930s, stating that: "The Rhineland has been demilitarized since the end of the Great War, but this insult shall stand no longer! Germany is a sovereign nation and is free to move troops anywhere within her borders" (AkatsukiEmpire, 2020a). This text is loaded with a strong rhetoric that positions the conditions of the 1919 Versailles Treaty as a humiliation or an "insult" for the German people (ibid). This perspective is shaped by popular historical narratives. One of the conditions of the treaty was the establishment of a demilitarisation Rhineland territory bordering Belgium, France, and the Netherlands. The territory had been designated in Article 180 of the Versailles Treaty as a demilitarised zone (Evans, 2009, p. 4). German forces were not permitted to be garrisoned within the area (Hawes, 2017, p. 174). Alan Sharp (2011, p. 16) argues that, through conditions such as the demilitarisation of the Rhineland, the 1919 Versailles settlement was viewed as a vindictive and unworkable political settlement. Similarly, Jay Winter and Blaine Baggett (1996, p. 338) declare that: "The Peace Conference...was more about punishment than peace...ensuring the instability and ultimate collapse of the accorded signed in the Hall of Mirrors at Versailles". As Chancellor, Hitler made frequent public addresses that denounced the punitive terms of the treaty (Graebner and Bennett, 2011, p. 126). The textual rhetoric of the historical description for the 'Rhineland' focus (AkatsukiEmpire, 2020a) distinctly imitates Hitler's public denunciations of the Versailles Treaty. *HoIIV* understands that Hitler's political and territorial ambitions began with the removal of Versailles (McDonough, 2019, p. 72).

The game's descriptive text also produces expressions of authentic-lite rhetoric that alludes to national sentiments against demilitarisation. Shelley Baranowski (2011) argues that the demilitarisation of the Rhineland was seen as "a catastrophe for most Germans". The occupation of the territory by French and American forces was the cause of national rage amongst the German population and remained a significant target of Nazi propaganda; the party pledged to remilitarise the area in election materials (Collar, 2012, p. 1; Franck, 1920; pp. 25-26; Mallia-Milanes, 1987, p. 1). Attempting to redefine the terms of the Versailles treaty, Hitler re-established universal military conscription in March 1935 (Marcuse, 2013, p. 505), increasing the German army to 36 divisions, amounting to 550,000 troops (Graebner and Bennett, 2011, p. 126). Through this perspective, Hitler's foreign policy ambitions were made publicly clear: Germany must be freed from every shackle imposed by the Treaty (Singleton Argus, 1936, p. 1). To significant portions of the general German public, Hitler was rejuvenating a nation that had not been defeated by the Allied powers during the First World War but had been betrayed by treacherous Berlin politicians who had stabbed the nation in the back (Boyd, 2018, p. 16). This is a historical narrative demonstrated within the textual description for the 'Rhineland' focus, reaffirming arguments that the German public opinion overwhelmingly felt that the conditions of the Versailles Treaty were unfair. Hitler's attempts to remilitarise the Rhineland are understood by this text as rectifying the misfortunes of the nation from the end of the First World War. Through visible textual expressions, public anger to the punitive terms of the treaty, and public support for Hitler's aggressive actions in Europe, represent an underlying cause behind the 'Rhineland' focus as understood by the developer-curators (AkatsukiEmpire, 2020a). As Stephen Shucker (1986, p. 299) persuasively argues, the 1936 remilitarisation of the Rhineland was the "last remaining symbol of inequality visited upon Germany by the Versailles treaty and transformed the strategic balance on the European continent".

System Benefits of Remilitarising the Rhineland

HoIIV's system processes make persuasive historical claims about the importance of remilitarising the Rhineland to the origins of the Second World War. The in-game statistical effects of enacting the 'Rhineland' focus are significant. They simultaneously improve the material position of the player and suggest that the historical conflict has become a closer reality. Firstly, the successful passing of the 'Rhineland' focus increases the 'World Tension' statistic by 2% (ReAn, 2020a). This game mechanic represents the "overall level of fear and anxiety that exists among the nations" (ibid). It is visually depicted as a small icon of Earth in the top-right of the screen that becomes gradually engulfed in flames as World Tension grows. From the game's initial release, a successful remilitarisation of the Rhineland would raise World Tension by 2%. However, according to the patchnotes from version 1.5, the World Tension increase of remilitarising the Rhineland was more than doubled to 5% (Dauth, 2018). This is an important change; there are significant consequences when the simulation operates with higher World Tension, such as increasing the amount of aggressive diplomatic moves that can be made. This is particularly useful for fascist or communist regimes. For example, the German Reich and the Soviet Union are given the option to change in-game conscription laws with a low World Tension percentage (Dauth, 2019b). This presents authentic-lite rhetoric about competing ideologies during the epoch, arguing that authoritarian nations were more effective in making aggressive military changes than democratic countries. The thesis will discuss how the NFTs textually and systemically represent political ideology in chapter 7. However, the remilitarisation of the Rhineland is characterised by the game's processes related to World Tension as a significant event precipitating a global conflict.

The game simulation bestows more immediate benefits upon enacting the 'Rhineland' focus than just raising World Tension. For example, the player is granted the ability to move and station troops into the Moselland and Rhineland states on Germany's western frontier, bordering Belgium, France and the Netherlands. Before the 'Rhineland' focus is completed, the player is unable to

situate any troops within the territories and is subjected to a no-go zone marker around the area clearly demarcated on the world map (Figure 13). The lifting of military restrictions significantly reinforces the perspective that remilitarisation was a decisive step towards a European war, as the player can position and their troops on the border between the German Reich and France. From this more advanced and aggressive position, the player can organise their military strategy based on a future conflict between the two nations. Through plotting various battle plans (Lillebror, 2016a), the player can design extensive military advances directly against the French. Through *HoIV*'s system, the remilitarisation of the Rhineland affords the player a greater opportunity to imminently attack France without a geographical buffer zone between the nations. Through this computational change, the game makes the curated historical argument that the Rhineland is a crucial strategic territory for potential German military offensives into France.



Figure 13: The red demilitarized zone of the Rhineland on the world map.

By completing the 'Rhineland' focus, the player is also given in-game material benefits to utilise within the simulation. Successfully enacting the 'Rhineland' focus gives the player 120 Political Power points, a specific in-game currency. The player can purchase or hire political advisors with Political Power points from a pool of historical individuals who have statistical attributes assigned to them (Dauth, 2019a). For example, the United Kingdom can recruit Clement Attlee, the Labour Prime Minister between 1945 and 1951 and Leader of the Opposition between 1935 and 1955, to the government. Attlee is categorised in-game as 'Democratic Reformer'; when he is actively employed, public support for democratic ideology is increased (ibid). However, political advisors can also hold attributes that increase the speed of industrial programs, or the rate of weapons or equipment manufacture. The German Reich has access to Walther Funk, a 'War Industrialist'

who possesses bonuses to the construction speed of military factory or dockyard buildings (ibid). This is an authentic-lite rhetoric expression of Funk's role within the German government. Funk was not in control of large industrial concerns but was the Minister for Economic Affairs and leader of the Reichsbank during the Second World War (James, 2018, p. 237; Pringle, 2012, p. 40). The description of Funk in-game as a 'War Industrialist' portrays him in relation to industry. However, it does not offer more in-depth historical context. This is a curated portrayal of Funk that is a distinct component of authentic-lite rhetoric; *HoIIV* only gives the player enough historical information necessary to broadly situate Funk lightly to German economics. The German Reich has over twelve unique political advisors that the player can recruit (Dauth, 2019a). Through giving the player 120 Political Power points for the remilitarisation of the Rhineland, the event is characterised by the simulation as an important opportunity for the nation to internally strengthen before a conflict. The bestowing of a substantial surplus of in-game currency allows the German Reich to increase their domestic industrial or political output, putting them in a stronger system position. Through changes in World Tension, Political Power points, and access to territory, the computations of *HoIIV* proliferate curated historical claims that the remilitarisation of the Rhineland was a highly useful political act of territorial reclamation.

British and French Reactions to the Remilitarisation of the Rhineland

When analysing the game's systemic and textual interpretations of the remilitarisation of the Rhineland, the German Reich are not the only nation to consider. Richard Evans (2005, p. 633) argues that a variety of diplomatic and political factors convinced Hitler that the United Kingdom and France would not intervene:

“Hitler had got away with quitting the League of Nations. He had got away with announcing German rearmament. And the domestic situation in Germany was so bad in the spring of 1936, with food shortages, worsening conflict with the Catholic Church and general grumbling and discontents, that a diplomatic coup was badly needed to cheer people up”.

Evans's narrative manifests itself within the 'Rhineland' focus on the German Reich NFT. The game system processes related to the focus interact significantly with the United Kingdom and France, suggesting that the Allied powers were reticent to challenge Hitler's territorial reclamation. By choosing to complete the event as the German Reich, the player is not simply just given the land; there is a specific sequence of processes that *HoIV* must follow. After the initial completion, hidden computations react between France and the United Kingdom. The outcome of these processes determines whether the German Reich can remilitarise the territory or be dragged into a premature conflict. In the case of France, the nation is given a text tooltip containing two options (TalkingKittyCat, 2020). The first option is to ahistorically confront the remilitarisation. If the German Reich concedes to this request, the nation cannot remilitarise the territory and the focus is sealed off for the remainder of the campaign. In contrast, if the German Reich does not back down after a French diplomatic confrontation, war can occur as early as March 1936. France can also pursue the historical option of lodging a diplomatic objection (ibid). This option invokes the narrative of the French Foreign Minister Pierre-Étienne Flandin placing a formal diplomatic complaint to the League of Nations (Shucker, 1986, p. 315). While the player operates as the German Reich, these processes are not hidden. In a pop-up tooltip that opens as the player hovers their cursor over the 'Rhineland' focus, red text under the description warns the player that "France and other nations may respond with hostility to this course of action". However, until the French make a decision, the German Reich will not know the systemic outcome until a confirmation message is relayed to them.

Both France and the United Kingdom receive an event titled 'The Remilitarization of the Rhineland' (TalkingKittyCat, 2020) where an ahistorical or historical decision can be made. In the British case, a textbox only appears after the French have decided on whether to pursue a conflict or issue a diplomatic objection (ibid). The systemic interplay between France, the United Kingdom, and the German Reich over the Rhineland focus is an expression of authentic-lite rhetoric that illustrates both the territory's unique strategic and military importance and the complex relationship

between the democratic nations. Hawes (2017, p. 174) argues that the remilitarisation was a magnificent coup for Hitler, when the “slightest Franco-British military opposition would have stopped him dead”. Similarly, Esmonde Robertson (1963, pp. 79-81) suggests that, while it is difficult to determine a causal relationship between stopping Hitler by an early French intervention, “if Hitler could have been stopped, he should have been stopped in March 1936” (ibid). In contrast, Frank McDonough (2019, p. 177) identifies that the French military had ruled out offensive military action against Germany from 1930. Instead, France adopted a ‘long-war strategy’ where the French would occupy the newly built underground trenches along the Maginot Line (ibid). As a consequence, German troops were able to march into the Rhineland unopposed, and “Hitler’s popularity in Germany reached new heights” (Hawes, 2017, p. 174). On 29 March 1936, the remilitarization was endorsed by over 44 million voters in a plebiscite, reaffirming Hitler’s position of power domestically and internationally (McDonough, 2019, p. 182).

HolIV’s systemic modelling of the ‘Rhineland’ focus conveys a popular interpretation that the Allied nations capitulated to the German Reich (Parker, 1956). Within discourses surrounding the origins of the Second World War, historians have questioned why the French did not rebuff German forces at this juncture (Shucker, 1986, p. 302). Specific game mechanics within *HolIV* attempt to depict France’s turbulent internal political situation as a contributing factor to their inaction against remilitarisation. For example, France begins a campaign in 1936 in a precarious domestic political position. The nation starts with a ‘National Spirit’ modifier titled, “Disjointed Government” (AkatsukiEmpire, 2020b). The modifier attempts to account for the impact of historical and political legacies within each nation through describing the “unique advantages or disadvantages of countries” (AkatsukiEmpire, 2020c). These modifiers are visually represented as symbols in the political menu and can be accessed by the player by clicking on the nation’s flag in the top-left corner of the screen. The description for the ‘Disjointed Government’ national spirit modifier states that: “The state of French politics is far from stable. While reforms are needed and welcome, the nation is divided and getting drawn

into a conflict would put it at great risk” (AkatsukiEmpire, 2020b). The modifier handicaps France with a divided civilian population on the issue of European conflict which directly impacts upon the country’s ability to wage war effectively. *HoIIV*’s game system reinforces France’s internal instability through a -50% ‘Surrender Limit’ modifier, allowing an opponent to only occupy half of the nation’s required territory before capitulation (CommanderFlo44, 2020). The only method to removing this restrictive modifier for France is through player progression in the French NFT. Between version 1.3 and 1.5 of *HoIIV*, France could remove the modifier through enacting the ‘Defensive Stratagems’ focus on the historical branch (Lillebror, 2017). This focus emphasises the perception that France’s military ambitions were focused on defensive tactics; a view epitomised by the densely fortified Maginot Line border between France and Germany which is highlighted in accessible literature (Buell et al, 2002, pp. 34-36; McDonough, 2019, p. 177).

The authentic-lite rhetoric tied to the systemic properties of the ‘Disjointed Government’ modifier suggests that the French public had little popular appetite for global conflict while the nation’s domestic politics was significantly divided. In May 1936, Leon Blum’s Popular Front was elected to government, with communist support (Bambery, 2014, p. 23). France faced waves of internal disruption, such as industrial factory strike waves and rifts between the ruling class and the working class (ibid). Against this turbulent background, and the spectre of the First World War, the French lacked a collective appetite for war (Young, 1996, p. 151). Considering French attitudes towards a potential European conflict, Robert Young (ibid, pp. 4-5) argues that the nation was internally conflicted:

“Did the French anticipate another war? Yes. Did they wish it to come? No. Did they do anything to instigate it? No. Were they prepared to do anything in their power to prevent it? No. Did they wish to settle things once and for all with Germany? Yes. Did they fear war? Yes. Did they anticipate victory? Yes. Could they imagine defeat? Yes. Did they all think the same way, share the same fears and same promises? No, and no again.”

The historian presents a complex national picture. France was divided in how best to respond to Germany’s aggressive diplomatic action. This particular narrative is

on display through *HolIV*'s processes related to the 'Rhineland' focus. French inaction on German remilitarisation is rooted in-game as an avoidance of conflict while the nation could resolve its the domestic situation.

By February 1936, the French government ultimately decided that no military action could be taken unless they could guarantee British support (Adamthwaite, 1977, p. 38; McDonough, 2019, p. 178). However, the British were also mindful of Prime Minister Stanley Baldwin's argument of "letting loose another great war in Europe" (Middlemas and Barnes, 1969, p. 918). Both nations are characterised in accepted historical narratives, and in *HolIV*, as reluctant to proceed with another European war against Germany. Between 1930 and 1934 the total French military budget fell by 17% (Schuker, 1986, p. 319). This diminishing figure illustrates that the French army was not in an adequate position to embark upon an early war (McDonough, 2019, p. 177-178). As a consequence, the remilitarisation of the Rhineland was not interpreted as a signal for an invasion by either democratic nation; it was simply considered as the entry of German troops into a region of unquestioned German sovereignty (Young, 1996, p. 25; Adamthwaite, 1977, p. 39). In 1936, the deferral of a future war was a majority opinion within British ruling circles and British public opinion (Bambery, 2014, p. 2). *HolIV* alludes to the British public's stance textually through the German pop-up event 'The Remilitarization of the Rhineland', including descriptive text stating that "public opinion in Britain is firmly against the war" (TalkingKittyCat, 2020). Conversely, a 'world news' pop-up concerning a successful German remilitarisation states that "It is no more than the Germans walking into their own backyard", a political commentator in Britain observed" (SolSys, 2016). This text invokes Philip Henry Kerr's remarks that remilitarisation was no more than the Germans walking into "their own back garden" (Butler, 1960, p. 213; Hughes, 1988, p. 862). *HolIV*'s text reflects a curated understanding of British political commentary in the mid-1930s. Similarly, the game system also conveys that anti-war opinion was prevalent in France through the 'Disjointed Government' modifier (AkatsukiEmpire, 2020b). Through system processes and textual elements, the game's simultaneous conformation to existing historical narratives and expressions of authentic-lite rhetoric in the NFTs

understand multiple domestic and diplomatic factors contributing to the British and French reluctance to enter an early European conflict over the remilitarisation of the Rhineland.

Primacy of the Remilitarising the Rhineland within *Hearts of Iron IV*

Paratextual material reinforces the game's argument concerning the significance of remilitarising the Rhineland. On Paradox Plaza, an online fan forum for PDS titles, posters regularly comment on the A.I. behaviour of the German Reich, noticing that the 'Rhineland' focus is almost always successfully completed. For instance, NFZed (2019) states that, "Whenever I play as Hungary, Germany always goes Rhineland, to be precise I have never seen AI controlled Germany doing anything else than going Rhineland". This account elucidates upon how the game system prioritises passing the 'Rhineland' focus in most campaigns. Furthermore, the repeated processes allowing the German Reich to always remilitarise the Rhineland demonstrate that the event is given historical importance by the simulation. Public YouTube playthroughs also illustrate how embarking upon the 'Rhineland' focus initiates a series of hidden and visible equations and system activity. YouTuber Alex the Rambler (2017b) undertakes a "Rhineland challenge" playthrough of *HoIIV* as France. In this video, the sequence of game processes that occur once the player decides to oppose the German remilitarisation are made clear (ibid). *HoIIV's* A.I. computational systems start from a default historical position that the Rhineland will be remilitarised; the German Reich can be seen to be proceeding through systemically reproducing accepted historical narratives before being confronted by the player's ahistorical decision to contest the remilitarisation (ibid). This interaction between the historical A.I. and the ahistorical intention of the player encapsulates the game's perspective on the importance of remilitarising the Rhineland as a historical event that precedes an inevitable global war.

In *HoIIV's* changelogs associated to the 'Rhineland' focus, it is clear that the developer-curators are attempting to simulate the diplomatic impotence of the

Allies during the mid-1930s. In version 1.7 of the game, released on 4 June 2018, one changelog entry reads: “France will now never fight remilitarization of the Rhineland” (Dauth, 2019). Although this changelog date is outside of the scope of the thesis, it is still significant to understand the historical implications. *HoIIV* is hardcoded, within not only the visible simulation but also hidden computational code which underpins the entire system, to always allow the German Reich to remilitarise the Rhineland. This is a highly significant illustration of authentic-lite rhetoric. The game system computes historical data and determines that every playthrough on the default setting for a campaign is characterised by this event occurring historically. This creates a curated interpretation from the NFTs that the remilitarisation of the Rhineland territory is an inevitable landmark historical political event on the road to an inevitable European conflict.

The Remilitarisation of the Rhineland and Historical Causality

The primary significance of the ‘Rhineland’ focus is its position in relation to other historical events of German aggressive expansion. Without successfully completing the ‘Rhineland’ focus, the player cannot enact subsequent landmark historical events. This demonstrates the NFT attempting to model a specific narrative of historical causality across the origins of the Second World War. Recognisable narratives of German aggressive territorial expansion in the late-1930s, characterised by the Anschluss of Austria and annexation of the Czechoslovakian Sudetenland, are locked behind the successful implementation of remilitarising the Rhineland (Figure 12). Without remilitarisation, the player cannot progress with this historical sequence. This is a curated reading of history through the NFT that positions the remilitarisation of the Rhineland as a historical event which is directly responsible for the Anschluss and Sudetenland annexation. This rhetoric is confirmed by the developer-curators through the game’s content; the secondary 14 August 1939 campaign start date has certain focuses and events already completed in order to simulate the war historically (Goodfellow, 2016, p. 6). In these scenarios, the ‘Rhineland’ focus is always successfully completed (Figure 14). This perspective conforms to narratives on the origins of the Second World War as understood

through an accepted sequence of significant geopolitical historical events in Europe caused by the aggressiveness of the German Reich.

Jarman (1955, p. 217) argues that the “move into the Rhineland was, indeed, a major victory for Germany. It marked the last occasion on which France and Britain could have checked Germany without war”. Or, as Baranowski (2011, p. 203) summarises, “Hitler’s daring gamble in March 1936 to remilitarize the Rhineland...removed a crucial Versailles restriction on Germany’s offensive military capability”. Before the remilitarisation of the Rhineland, the French were in a dominant political position, potentially able to militarily enforce Germany’s obligations to the Treaty of Versailles by marching across the Rhine and occupying the country’s biggest industry region. Yet, from the 7 March 1936, with a remilitarised and decidedly German-led territory, “they were no longer able to do so. The French position from 1936 was a purely defensive one. It left the Third Reich a free hand in moving against the small countries of Eastern Europe” (Evans, 2005, p. 638). The German Reich NFT in 1939 models this perspective, creating an expression of authentic-lite rhetoric which sees the remilitarisation of the Rhineland as an inevitable event that allowed the German Reich to continually aggressively expand into central and eastern Europe. The ‘Rhineland’ focus is positioned as a point of no return for peace in Europe; the first event in a series of significant expansions that made war more likely by whetting Hitler’s appetite for aggression (Ripsman and Levy, 2008, p. 148). Significantly, this point of no return is encountered immediately as the player examines the German NFT, reinforcing the game’s overarching perspective that the Second World War was an inevitability.

However, the German Reich NFT has significantly altered between *HolIV*’s 1.0 release and the introduction of version 1.5. These changes affect the entire structure of the ‘Rhineland’ branch, and subsequent sections of the German NFT (AkatsukiEmpire, 2020a). From version 1.5, with the release of the *Waking the Tiger* expansion, the position of the ‘Rhineland’ focus has been altered (Steam, 2018). However, its historical importance has not been diminished by the system; instead, it has been reinforced. From previously offering the player one choice of remilitarising the Rhineland, the German Reich’s NFT provides the player a mutually exclusive decision between the ‘Rhineland’ focus or the ahistorical ‘Oppose Hitler’

focus (Figure 14). This version of *HolIV* allows the player to immediately pursue either an ahistorical or historical path through the NFT (Paradox Grand Strategy, 2017). In alternative-history terms, the contextualising text for the ‘Oppose Hitler’ event states that, “Hitler's reign must come to an end. He means to provoke the Western powers by remilitarizing the Rhineland but doing so will give us the excuse we need to seize power with the help of loyal elements in the Wehrmacht” (AkatsukiEmpire, 2020a). Even though this is an ahistorical focus, the descriptive text of this event suggests that the remilitarisation of the Rhineland is still necessary ambition. This is highly significant; even *HolIV*’s ahistorical outcomes are based on recognisable historical events occurring in alternate ways. The creation of the ‘Oppose Hitler’ event, and its description in-game, convey a curated historical interpretation which presumes that the Rhineland will always need to be remilitarised, even in alternative-history. Ultimately, *HolIV*’s system and text determine that the remilitarisation of the territory is an almost unstoppable occurrence. The ‘Rhineland’ focus is a significant example that the developer-curators cannot not envisage a successful historical or ahistorical playthrough of the German Reich without this event being enacted. This decision strongly conveys the developer-curator’s curation of that past, that in both accepted historical narratives and fictional histories, the Rhineland will be remilitarised by Germany, and the Second World War will draw closer.

Anschluss of Austria

The German annexation of Austria on 12 March 1938 is a significant milestone on the road to the Second World War. In a 1997 BBC documentary film series, *The Nazis: A Warning from History*, a television adaptation of Laurence Rees’s (2012) research, the Anschluss is framed as Hitler realising his dream of uniting German-speaking peoples (Russel Tarr, 2010). Hitler was able to capitalise on Austria’s internal political instability, and the Anschluss is set as an event that signified a reborn nation, “now united with Germany, they were a power once again” (ibid).

Similarly, Antony Beevor (2012, p. 6) highlights the unification of Austria as an explicit political ambition of the Nazi regime:

“Hitler’s programme to make Germany the dominant power in Europe had been made quite clear...First, he would unite Germany and Austria, then he would bring Germans outside the borders of the Reich back under its control...Only when this had been achieved would the German people have the ‘moral right’ to ‘acquire foreign territory.

In this assessment, Beevor neglects the remilitarisation of the Rhineland. However, his overall argument identifies that the integration of Austria was a crucial diplomatic and political target for Germany.

Even before Hitler’s ascension to power, integration was as a long-term ambition. This historical argument goes against Taylor’s (1964) conception that Hitler pursued an opportunistic foreign policy. Yet, when remarking upon the Anschluss, Taylor concedes that Hitler “certainly meant to establish control over Austria” (ibid, p. 146). The potential annexation of Austria is targeted by the regime as an outcome that would restore the nation’s power and pride (Beevor, 2012, p. 6). There is significant documentary evidence that reinforces a perspective that unification was planned. In Hitler’s 1925 manifesto *Mein Kampf*, considerations for unification were made in the first paragraph:

“German-Austria must return to the great German mother country, and not because of any economic considerations. No, and again no: even if such a union were unimportant from an economic point of view; yes, even if it were harmful, it must nevertheless take place” (Hitler, n.d.).

In early 1933, Hitler told a visiting group of American businessmen that he wanted to annex not only Austria, the Polish corridor and Alsace-Lorraine, but also the German-speaking parts of Denmark, Italy, Czechoslovakia, Yugoslavia and Romania” (Evans, 2005, p. 615; Weinberg, 1970, p. 163). These perspectives reinforce how the incorporation of Austria was a primary concern to facilitate later territorial acquisitions in central Europe. Furthermore, this view illustrates that every

aggressive diplomatic expansion action of the German Reich was premeditated. From February 1938, Hitler began making public speeches at the Reichstag which signalled his agenda to submerge neighbouring nations (Jarman, 1955, p. 226). An incorporation of Austria into the German Reich fitted well into the ideological concept of *Mitteleuropa*, a German-led economic sphere in Central Europe (Evans, 2005, p. 646). Popular historical work presents the narrative that, far from an opportunist attempt to incorporate the nation into the German Reich, Austria was a long-term prime target on the nation's aggressive expansion agenda. The visible inclusion of the 'Anschluss' focus on the German Reich NFT is acknowledgment of Hitler's long-term ambition to unite the nations.

Historical Precedents of Austrian and German Integration

Popular historical narratives argue that Hitler was determined for the two nations to be united. The German Reich's NFT conveys this sentiment; Austrian integration is set as a crucial ambition of the regime. The historical description for the 'Anschluss' focus reads:

“The Anschluss, or union with Austria, is a long-held goal of the German people. Although forbidden by the Treaty of Versailles, the time has finally come to bring it about. Let us offer the Austrians a chance at sharing our glorious destiny.” (AkatsukiEmpire, 2020a).

The first sentence of the description does not just interpret the union as a long-term ambition of the Nazi leadership, but also a logical consolidation of related populaces (Boyd, 2018, p. 323). This text alludes to historical debates surrounding the union of Germany and Austria. Yet, through these discourses, the roles of the nations were reversed; Austria was historically considered the senior power of any potential union. Through the eighteenth and nineteenth centuries, Prussia and Austria were political rivals (Hawes, 2017, p. 82). Among the thirty-nine nations which formed central and eastern Europe, Austria and Prussia were known as the Dual Powers, accounting for their larger size and economic power (Stiles, 1989, p. 6). In the mid-eighteenth century, the nations were at war over the province of

Silesia. On 16 December 1740, Frederick II, the King of Prussia, took direct control of the province from Austria (Hawes, 2017, p. 82). This conflict resulted in two further Prussian-Austrian conflicts between 1744-1745 and 1756-1763 (Schui, 2013, p. 101). In a European context, these wars were local components of two larger wars: The War of Austrian Succession between 1740-1748; and The Seven Years War between 1756-1763 (ibid). The War of Austrian Succession was, although a complex conflict of competing political narratives, a conflict primarily concerning Maria Theresa's preservation of "territories she had inherited...now seen as the Habsburg hereditary possession" (Anderson, 2014, p. 2). This long period of conflict descended into stalemate with little decisive results (ibid, p. 210).

The nineteenth century continued to be characterised by struggles between Austria and Prussia for mastery of central and eastern Europe (Stiles, 1989, p. 4). During this period, the two nations also considered a potential union. However, Austria maintained a position of pre-eminence and power (ibid, p. 7). The Viennese Revolution of 1848 raised questions of a merger between the German states and Austrian Empire (Rath, 2013). Debates in the Frankfurt Parliament were divided between the members who wanted a 'Great Germany' that would include the German-speaking provinces of the Austrian Empire, and those who favoured a 'Little Germany' that would exclude Austria but include Prussia (Stiles, 1989, pp. 30-31). In 1849, the Prussian politician Joseph von Radowitz proposed a Prussian Union scheme which would also exclude Austria; although the nation would not be a member, there would be a special relationship in the form of a permanent union between the Reich and the Habsburg Empire (ibid, p. 42). These debates did not produce any formal proposals of a union.

In May 1851, the German Confederation of 1815 was formally re-established and an alliance between Austria and Prussia signalled a policy of close co-operation (ibid, p. 43). The establishment of the German Confederation was intended to create an image of Germany that was a loose collection of states under Austrian control (Kitson, 2001, p. 14). The Confederation had one executive body, the Bundestag, which met at Frankfurt and was presided over by Austrian

representatives (Stiles, 1989, p. 8). The organisation was a supra-national entity, intended for co-operation between states (Steinberg, 2014, p. 178). However, the outbreak of the Austro-Prussian War in 1866 illustrates the fundamental fissures in the relationship between the nations during this period. The Prussian leadership, led by Otto von Bismarck and William I, was torn over a military takeover upon victory and no Austrian territory was ever occupied or taken by Prussia (Stiles, 1989, pp. 57-58). At the conclusion of the war, the German Empire emerged as a federal nation reduced to twenty-five states by the loss of Austria, and Prussia's annexations (ibid, p. 86). Considering the historical relationship between Germany and Austria during the eighteenth and nineteenth century, the German Reich's historical description of the 'Anschluss' focus strongly alludes to historical debates concerning the unification of German-speaking territory. The description produces an authentic-lite rhetoric which suggests that the unification between the nations was an almost inevitable outcome based on these historical debates.

Holliv's visual depiction of Austrian territory is also a curated expression of the aftermath of the First World War. The 1919 Treaty of Saint-Germain left Austria as a "truncated state with no access to the sea and in a precarious economic and financial position" (Steiner, 2007, p. 92). By 1936, Austria was displaced into a territory a quarter of the size of the historic Austrian lands of the Hapsburg Empire, and contained a cumbersome civil service and a depleted agricultural and industrial base (Burleigh, 2000, p. 270). The version of Austria at the beginning of *Holliv* is an abstraction of its historical borders from the end of the First World War. Far from the senior German-speaking European power as it was conceived in the eighteenth and nineteenth century, Austria is a shrunken state. During the interwar period, this change in the nation's geopolitical importance produced uncertainty among the public; their country was "considered too small to live but too large to die" (Steiner, 2007, p. 93). Consequently, during the 1920s, both the Austrian National Assembly and the German Weimar Republic expressed desires for a merger, arguing to the European Allied powers that the annexation of Austria would legitimise the new Weimar Republic by rooting it in Germany's pre-1871 past (Gerwarth, 2005, p. 35). In 1931, the German politician Franz von Papen proposed a customs union to

prepare the ground for a subsequent annexation (Baranowski, 2011, p. 160). However, French concerns that an enlarged Germany would re-threaten its existence led to the merger only being a theoretical debate (ibid). While the leadership of both regimes lobbied internationally and domestically for a union, the majority of the two populations were also supportive (Suppan, 2019, p. 345). In 1920 and 1921, Anschluss-supporting movements appeared in Tyrol and Salzburg, organised by the Christian Socials, Social Democrats, and Pan-Germans (ibid). Formal plebiscites in these areas also voted for the Anschluss (ibid). As a result of the peace treaties of the First World War, Austria was a rump state without any significant power. *Holliv* simulates this history through its visual portrayal of the nation's borders, and programming a substantially weakened nation that was willing to accept annexation.

System Processes of Austrian Self-Determination

Computations associated to the 'Anschluss' focus reconfirm popular narratives that Austria was willing to be submerged into the German Reich. Timothy Snyder (2010, p. 9) argues that the annexation of Austria was a plausible event, instigated by national sentiments of self-determination:

“ten million speakers of the German language...remained beyond Germany's borders...Almost the entire population of Austria, resting between Czechoslovakia and Germany, were German speakers. Austria was nevertheless required by the Treaty of St. Germain to exist as a separate state, although much of its population would have preferred accession to Germany”.

While there is evidence to suggest that many Austrians welcomed a political union with Germany, this is still a reductive perspective that does not take into account dissenting voices against the merger (Boyd, 2018, pp. 323-336). The Anschluss is seen in popular narratives as an event solely caused by a groundswell of public self-determination. The German Reich NFT also makes this claim. When Germany completes the 'Anschluss' focus, a textbox appears stating that “Repeated uprisings

in Austria clearly show that the people there long to be united with our Reich. It is now time to take action and allow the will of the people to be made manifest” (TalkingKittyCat, 2020). Simultaneously, Austria is given a unique event which they must respond to. The description for the event reads: “Civil unrest and acts of violence have broken out as protesters voice their desire for Austria to join Germany in a union of German peoples. Berlin is pressing hard for an Anschluss, which would see Austria annexed into their nation” (ibid). These two descriptions are substantially framed along the historical narrative that the Austrian population were overwhelmingly in favour of a union with Germany.

These descriptions allude to the annexation of Austria as the product of a violent and militant merger. Although typically following the narrative that the Anschluss was the logical and desired integration of two German-speaking nations, history narratives portray the Anschluss as a complex political event. In the 1930s, Austria was a severely weakened nation that was diplomatically bullied by the Nazi regime (Burleigh, 2000, p. 270). During the decade, Nazi acts of terrorism in Austria increased; explosions, tear-gas bombs and street demonstrations were instigated by the Austrian Nazi Party in order to force the Austrian police to restore order (Jarman, 1955, p. 227). These acts afforded Germany an excuse to protest to Austria against the persecution of dissenting political voices (ibid). Therefore, although textual descriptions invoke a history of political violence in Austria this internal disruption is not modelled within *HolIV*.

In 1919, the Allies declared that nations had the right to live as united peoples; Hitler called upon these arguments when arguing the case for unification with Austria (Hawes, 2017, p. 175). In July 1936, an agreement between the two countries was met; Germany publicly recognised the sovereignty of Austria and relaxed certain restrictions on travel and cultural activities; in response, Austria was to grant amnesty to Nazi political prisoners and allow members of the Austrian Nazis into the government (ibid). In the face of increased acts of political violence by Austrian Nazis and pressure from Hitler, the Austrian Chancellor Kurt von Schuschnigg mandated a nationwide plebiscite to be held on 13 March 1938

(Kershaw, 2016, p. 197). The announcement for the referendum was made on 9 March, giving a short preparation period of four days, and restricting votes to anyone over 24 years old (McDonough, 2019, p. 275). These conditions were intended to demonstrate strong public support for Austrian independence (ibid; Jarman, 1955, p. 227). However, von Schuschnigg's plans were prevented by a pre-emptive German invasion of Austria on 12 March (Kershaw, 2016, p. 197). Following the invasion, and resignation of von Schuschnigg, the newly installed Nazi regime called for another referendum in April 1938. Evans (2005, p. 111) argues that the Nazis had perfected techniques of electoral terror and manipulation to the extent that it achieved a 'yes' vote of more than 99%. Frank McDonough (2019, p. 279) argues that Hitler was greeted by euphoric crowds of Austrians as he travelled through Linz and Vienna.

There was no international opposition to the Anschluss (Hawes, 2017, p. 175). However, *The Times* (1938, p. 14) summarised the Anschluss as "The Rape of Austria", and the *Manchester Guardian* (1938, p. 12) stated that "This is an invasion of an independent state as brutal as that of Japan's into China...This, then, is Hitler's policy, this is the naked fist". Despite this opinion, the Allied powers recognised the Anschluss in law at the end of 1938, regarding the annexation as a long-expected union which was almost inevitable for reasons of culture and politics (Keyserlingk, 1990, p. 186). Therefore, despite popular sentiment for a unification, the Austrian people were not overwhelmingly in favour of unification. A more complex set of circumstances characterise the event, with Nazi intimidation tactics being significantly effective at exploiting an already politically and socially vulnerable nation.

In contrast to this complex historical and political narrative, *HolIV* performs the Anschluss bluntly. The German Reich's NFT models the Anschluss as a bloodless and immediate takeover of the country (Figure 15). There is no reference to the acts of political violence caused by Austrian Nazis. Furthermore, the complex circumstances surrounding von Schuschnigg's proposed 13 March plebiscite are not discussed or illustrated. The player is given little historical context about the event.

In a 'News event' pop-up that appears once the 'Anschluss' focus is completed states:

"Since the close allied cooperation of Austria and the German Reich began, pro-unification sentiment has risen dramatically in Austria. A plebiscite held yesterday saw the Austrian people vote overwhelmingly in favor of unification with their northern neighbours. Integration of the Austrian state has been pushed forward immediately, and the old state was abolished this morning." (Dauth, 2018a).

This description of the event reductively describes one perspective of the main historical narratives of the Anschluss, narratively conforming to other historical descriptions of the event within the game (TalkingKittyCat, 2020). Interestingly, this news pop-up was only added to *HolIV* in version 1.5, suggesting that the developer-curators wanted to add further historical context to the event that was not present in the initial release of the game. However, *HolIV*'s expression of the history surrounding the Anschluss is reductive and does not account for Nazi acts of political violence or dissenting public voices against German integration.



Figure 15: World event pop-up description for successfully completing the 'Anschluss' focus.

Importance of the Anschluss to *Hearts of Iron IV's* Second World War

HoIIV's computations highlight the significance of the Anschluss to the origins of the Second World War in Europe. By enacting the 'Anschluss' focus as the German Reich, the player is given the entire country immediately and the nation forms a large landmass in central Europe. Forum conversations between players reaffirm that, in most play circumstances, Austria will cede their territory immediately on the completion of the focus (Awfulcopter, 2016). Furthermore, within the title's changelog for Patch 1.5, it states that "Unaligned and Democratic Germanies now also have a chance of integrating Austria, under certain conditions" (Dauth, 2018). This is significant, illustrating that the developer-curators understand the annexation of Austria as a geopolitical event that was inevitable in historical or

even counterfactual scenarios. The game's immediacy in enforcing the annexation also projects an authentic-lite rhetoric which reinforces an argument that there was a collective public will for the nations to merge. Furthermore, this change echoes the speed in which the nation was incorporated into the German Reich. Austrian autonomy ceased to exist within two years. By the end of 1938, the nation was simply considered a province of Germany (Jarman, 1995, p. 233). Within two days of the official German takeover of Austria in January 1940, the postal service, railways and banking had all be subsumed into the German bureaucratic and financial system (Evans, 2005, p. 655). Mechanically, the game system portrays the Anschluss in a similarly swift fashion. Upon completion of the focus, the nation is immediately wiped from the map to be replaced as a south-eastern extension of the German Reich.

However, the 'Anschluss' event holds more systemic significance than just the direct control of a large section of central Europe. On completing the focus, the player is bestowed 10 points of 'Army Experience' points (AkatsukiEmpire, 2020a). This is an in-game currency used to modify army divisions by changing their equipment, their combat width, or creating new variants of land units (Zauberelefant, 2020). By acquiring Army Experience points, the player is given the opportunity to improve the composition of their army units. This gives the player a definitive military advantage over other nations. This is a curation of the impact of the Anschluss which, through systemic processes, argues that the incorporation of Austria strengthened the German military. Numerically, there is evidence to support this claim; almost a million Austrians actively served in the German military throughout the Second World War (Cymet, 2011, pp. 113-114). After completing the 'Anschluss' focus, the German Reich is also given a 10% increase in the 'War Support' (AkatsukiEmpire, 2020a). This statistic "represents the willingness of the population to endure the privations of war" (Zauberelefant, 2020a). World Tension is also increased by 10% (AkatsukiEmpire, 2020a). Through these two specific changes to the game system, *HolIV's* NFTs actively produce an authentic-lite rhetoric that suggests that the Anschluss significantly hastened the onset of a global conflict. Compared to the 5% World Tension increase for enacting the 'Rhineland'

focus (ReAn, 2020a), the game system's 10% increase in World Tension and War Support offers a curated historical interpretation that the Anschluss was significantly responsible for raising the spectre of a renewed European war. Therefore, *HoIIV*'s primary expression of the historical significance of the Anschluss can be seen in how the focus intersects with other aspects of the game system to produce interpretations regarding the inevitability of the Second World War. Computational changes in the World Tension and War Support statistics add a distinctly military benefit to completing the focus. By giving the player a significant increase in statistics and military potential, the 'Anschluss' focus is positioned in-game as a necessary act in order to achieve German military supremacy in Europe.

The innate structure of the 'Anschluss' focus on the German Reich NFT also produces a strong expression of authentic-lite rhetoric. The 'Anschluss' event, much like the 'Rhineland' focus, is a root focus of a sub-branch of the German Reich NFT (AkatsukiEmpire 2020a). Many historical or ahistorical events modelled on the NFT can only be completed if Austria is successfully annexed. These events continue to perpetuate a distinct causal relationship between Germany's individual acts of aggressive expansion across central and eastern Europe. Therefore, the game system of *HoIIV* visually and systemically depicts the Anschluss as a pivotal event. Its completion is central to German plans for European war. The rewards for completion, alongside raising statistics which make war more likely, also include allowing the player to move onto future possibilities for aggressive expansion on other neighbouring countries (ibid). The authentic-lite rhetoric message of the 'Anschluss' focus is clear. It is conceived by the developer-curators as a pivotal landmark introducing a distinctive "pre-war" period (Taylor, 1964, p. 131). From the moment that the Anschluss is completed in *HoIIV*, war is not just likely: it is inevitable.

The German Annexation of the Sudetenland

Between 1936 to 1938, there is a distinct pattern of aggressive diplomatic expansion by Germany. Popular narratives characterise Hitler's decisions as a

premeditated plan to claim and reclaim territory for the nation (Kaiser, 1980, p. 59; Bracher, 1970, p. 128; McDonough, 2019). *HolIV* attempts to model this specific historical narrative by chaining events concerning German expansion together on the nation's NFT. The systemic and textual components of the NFT illustrate a curated thread of historical narrative: that the remilitarisation of the Rhineland, and the Anschluss of Austria, are linked to the notion of aggressive diplomatic expansionism.

The transfer of the Czechoslovakian Sudetenland to the German Reich in October 1938 is another geopolitical landmark event seen through this context. The Sudetenland was understood as western sections of the country that were predominantly inhabited by German speakers (Boyd, 2018, p. 333). The 'Demand Sudetenland' focus is the NFT's model of the Czechoslovakian crisis of September and October 1938. On the NFT, it is placed immediately as the next focus following the 'Anschluss' event (Figure 14). This structural decision illustrates that *HolIV* conveys the prevalent argument in popular history that German foreign policy swiftly moved between annexing Austria and then annexing the Sudetenland. Robert Keyserlingk (1990, p. 185) argues that Hitler's previous actions set a precedent for the Czechoslovakian crisis, "The 1938 Anschluss of Austria with Germany alerted the world to the exposed position of the small country sharing frontiers, history, and culture with its larger Germanic neighbour to the northwest". Similarly, Baranowski (2011, p. 220) argues that Hitler's successful annexation of Austria emboldened him to seek the destruction of Czechoslovakia. By plotting the 'Rhineland', 'Anschluss' focus and the 'Demand Sudetenland' focus together the German NFT projects a distinct curation of a determinist history which contends that German annexation of the Sudetenland would not have been possible without a successful Anschluss. This chain creates a cascading historical narrative which is wholly characterised by repeated German expansions in central and eastern Europe preceding an inevitable war caused directly by this aggression.

German Peoples within Czechoslovakia

However, this particular expression of the origins of the Second World War is a reductive and determinist overview of a series of complex historical and geopolitical issues. In order to understand how the system and textual elements of the German Reich NFT produce curated historical expressions, it is also necessary to understand long-term historical phenomena related to Czechoslovakia. In part, the Sudetenland crisis can be understood through the history of democratic and liberal revolutions of 1848 across Europe. The Czechoslovak Republic that existed in the 1930s was formally created in the last days of the First World War; on 28 October 1918, a cross-party national council took control and proclaimed independence from Austria-Hungary in Prague (Caquet, 2018, p. 4). The nation's creation was historically rooted in Czech independence movements in the mid-nineteenth century. At the height of the political upheavals of 1848, the German nation-states called a German National Assembly in Frankfurt am Main in order to form one new nation (Prohaska, 2020). In contrast, the Czech National Movement, led by František Palacký, was determined to form an independent and democratic nation and rejected this offer (ibid). In June 1848, the Austrian-backed Hapsburg military responded with repression and artillery bombardments; commander Alfred Prince Windischgrätz took control of the city under a state of siege and ended the efforts in Prague to win constitutional reform (Cohen, 2004). The provincial government dissolved the National Committee and halted plans to elect a new Czech Diet (ibid). The independent Czechoslovakian Republic of 1918 was fundamentally built on those hopeful historical roots in the nineteenth century.

Through its almost twenty-year existence in the twentieth century, modern Czechoslovakia had come to rely on a network of alliances for national security. France committed to supporting the nation in the event of a German attack; and in 1935 the Soviet Union signed a defence agreement, on the condition that France had to honour its own obligations before the Soviets became bound to intervene (Caquet, 2018, p. 4). However, significant territorial and political tensions remained with Germany. Czechoslovakia contained a sizeable German minority located in the

Sudetenland. While this minority had previously been subjects of the Austrian Empire, they had never been the subjects of the German Reich (Jarman, 1955, p. 234). Popular narrative accounts of the period argue that after Hitler had successfully annexed Austria, his attention immediately turned to gaining the Sudetenland territory (Roberts, 2009, p. 7; Bell, 1986, p. 5). As a consequence, this small geographical area of central Europe has since been popularly characterised as helping “plunge Europe into war” (Geographics, 2019).

Czechoslovakia was a divided multinational nation (Koll, 2010, p. 273). While Prague and the nation’s Western areas were urbanised, Slovakia was a predominantly rural area; its eastern reaches were a patchwork of linguistic and national identities (Caquet, 2018, p. 9). Many ethnic minorities were contained within the region, aiding a perception that the nation was potentially politically unstable (Bell, 1986, pp. 24-26). This fundamental fissure between different ethnicities and identities within Czechoslovakia was exploited by the Nazi regime. Historian Andrew Roberts (2009, p. 6) argues that Hitler planned to overthrow the Czechoslovakian Republic. When Hitler seized the German Chancellorship in 1933, the relationship between the nations deteriorated. In order to destabilize the Czechoslovakian Republic, the Nazi regime fostered secessionist movements of the German-speaking population in Czechoslovakia (Koll, 2010, p. 274). In 1933, the Nazi-leaning politician Konrad Henlein founded a political party to represent for the Sudeten Germans, and nationalist views guided discussions about the fate of German-speaking areas of Europe (ibid, pp. 273-274). Between 1933 and 1938, the Nazi regime attempted to use aggressive covert actions to agitate the Sudeten German population and to return the territory to Germany. These guerrilla intimidation tactics were similar to the ones employed in Austria before the Anschluss (Jarman, 1955, p. 227). Critically, *HolIV* does not attempt to model clandestine attempts to internally disrupt the political landscape of Czechoslovakia during the mid-1930s.

However, from 1935, the Nazi leadership also began to study a military offensive against Czechoslovakia (Lukes, 1996, p. 209). Hitler reaffirmed his commitment to

an expansionist foreign policy on 5 November 1937, after a meeting between the Nazi leadership often referred to as the Hossbach conference, named after colonel Fredrich Hossbach, who took notes (Kaiser, 1980, p. 166; Wistrich, 2002, p. 126). At this conference, Hitler proposed the military conquests of Austria and Czechoslovakia as a method to produce “living space” for the German nation (Kaiser, 1980, p. 168). In November 1937, the Sudeten Nazis in the Czech parliament staged a walk-out following a ban on political meetings; Hitler stoked the crisis throughout 1938, mobilizing the Wehrmacht in August and demanding the annexation of the Sudeten areas to Germany the following month (Roberts, 2009, p. 8). On 22 April, 28 and 30 May 1938, Hitler announced to commanding officers and staff officers of the army, navy, and air force of his ambition to fight Czechoslovakia militarily (Hoffman, 1980, p. 115). On 18 August the Sudeten Germans, led by Heinlein, rejected the Czech Government’s plan for a measure of autonomy (Phillips, 1938, p. 35). Members of the Sudeten German political party began protests and provoked violence from the Czech police with Hitler erroneously claiming that 300 Sudeten Germans had been killed (Moorhouse, 2003, p. 200). Hitler used these claims as an excuse to place German troops along the Czech border (ibid). According to Jarman (1955, p. 233) Hitler enclosed the Czechs as if in the iron jaws of a vice.

HoIV makes little attempt to demonstrate this historical chronicle of events. The Hossbach conference does not exist within the game, or the NFT, as an individual focus. Instead, the German Reich NFT projects an authentic-lite rhetoric that aggressive expansion was planned through the innate structure’s chained construction. If the player does wish to follow the historical record, they can place troops along the German-Czechoslovakian border, representing a manual approach to re-enacting the period before the annexation of the Sudetenland. The historical narrative proliferated through popular history suggests that the German decision to demand the Sudetenland from Czechoslovakia was not simply forced into being in 1938. It has significant antecedents from the moment that Hitler took power in Germany on 30 January 1933. Conversely, the German Reich’s NFT does not make any of this complex historical information available, presenting an authentic-lite

rhetoric that expresses certain historical events are insignificant to the annexation of the Sudetenland. Searching through the HOI4 Wiki, there is no reference to either Heinlein or the Hossbach meeting. This exclusion of significant figures and events in the origins of the Second World War illustrates the limits of the game system in conveying the historical epoch authentically.

However, the wider historical argument that Hitler was planning to invade smaller European nations bordering Germany, is reconfirmed by *HoIIV* through how aggressive expansion events are chained together from 1936 on the German Reich NFT. The game argues that without the remilitarisation of the Rhineland, and the Anschluss, the German Reich cannot attempt to diplomatically annex the Sudetenland. Textually, the historical description of the 'Demand Sudetenland' focus conveys a similar rhetoric: "The fate of the Sudet-Germans was one of the worst injustices inflicted by the Treaty of Versailles. They must be brought under our protection, regardless of Czech objections" (AkatsukiEmpire, 2020a). As Hobsbawm (1995, p. 37) recognises, the Second World War in Europe was concretely instigated by "malcontent powers". Germany's desire for expansionism was partly a process of restoring the nation to its pre-First World War lustre. The 'Demand Sudetenland' focus description also conveys this sentiment, illustrating that the adverse effects of the First World War are intrinsically connected to the origins of the Second World War. Through detailing "Czech objections" (AkatsukiEmpire, 2020a), this historical description projects the popular historical argument that Czechoslovakia was initially prepared to militarily oppose any German invasion (Boyd, 2018, p. 333).

Czechoslovakian National Industry

The material benefits for successfully enacting the 'Demand Sudetenland' focus are systemically made clear to the player upon completion. The German Reich immediately assumes total control of the border territory in the same process that the game system undertakes after completing the 'Anschluss' focus. In a historical

context, the annexation of the Sudetenland allowed more German-speaking peoples to be united under one nation (ibid). However, the 'Demand Sudetenland' focus also offers a curated interpretation of its historical importance through its modelling of the area's industrial concerns. Chapter 6 explicitly discusses *HolIV*'s partial and curated historical interpretations of the economic and industrial histories of the epoch. However, in this context, it is necessary to determine the strategic importance of the Sudetenland within *HolIV*.

By annexing the Sudetenland, the German Reich gains access to a range of important raw materials used to construct military units, allowing the player to wage war more effectively. Popular history conveys an argument that Czechoslovakia was industrially capable. During the 1930s, the republic was industrialized, well-armed, and formed an obstacle to Hitler's expansionist plans in Europe (Caquet, 2018, p. 7). The republic of Czechoslovakia was also one of Europe's few remaining democracies (ibid, pp. 5-6; Evans, 2005, p. 665). *HolIV* systemically models this historical information; from the game's 1936 start, Czechoslovakia is a nation possessing an abundance of military resources. Most significantly, the nation holds 42 units of steel and 4 units of oil and chromium (AkatsukiEmpire, 2019). The game's allocation of vital raw resources demonstrates the military importance of controlling the territory for the German Reich, and for Czechoslovakia. Through the 'Demand Sudetenland' focus on the German Reich NFT, the player has the opportunity to both expand the nation's internal borders and add significantly to their industrial capacity by gaining steel and land; two of the most important resources within the simulation (Figure 16).



Figure 16: Screenshot of a German Reich campaign with an annexed Sudetenland. The resource map mode illustrates levels of natural resources available across eastern Germany, German Austria, Czechoslovakia, and Hungary.

Through the unique Czechoslovakian NFT, the game system makes alternative attempts to model the nation's strong industrial component. The country's bespoke NFT was introduced in the *Death or Dishonor* expansion pack in version 1.4 (Steam, 2017). The dominant focus of the expansion was to expand on how players could experience the conflict, "giving players all-new ways to experience – and change – the course of history" (ibid). Many of these focuses are ahistorical. However, through the 'Industrial Legacy' branch of the Czechoslovakian NFT, which provides "additional factories and industrial bonuses", both the game system and textual information provide expressions of authentic-lite rhetoric (Volphied, 2019). The focuses on the Czechoslovakian NFT reaffirm the historical realities of the high industrial capacity of the nation during the 1930s. For instance, the root focus of this branch is titled 'Industrial Legacy' and reads:

"Skoda Works was the largest arms manufacturer in Austria-Hungary, and since our independence they have branched out to become a leader in

many fields of industry. Having such a high concentration of both expertise and heavy industry greatly aids all industrial endeavours” (ibid).

This text projects a view that the nation held a high industrial capacity. The system also conveys this view; by successfully completing the focus, Czechoslovakia is given a national spirit called ‘Industrial Legacy’ (ibid). The effects of this national spirit modifier give the nation a 5% increase in the construction speed of civilian factories and a 10% reduction in the time it takes for civilian factories to be converted into military factories (ibid). These bonuses are useful to the player. Simultaneously, they also produce a perspective which understands the large industrial capacity of Czechoslovakia during the epoch. The reduction in the factory conversion statistic is a significant computation based on the historical roots of Skoda’s armaments manufacturing. In the nineteenth century, the Skoda Works produced arms for Austria-Hungary (Kaufmann and Kaufmann, 2014, p. 174). During the First World War they produced 305mm and 420mm artillery pieces (ibid). By 1934, the first Czech tanks were made in the Skoda factories and were superior in quality to the German-made Panzer I which formed most of the Nazi armoured force (ibid). The historical impact of Czechoslovakian industry is clearly shown within the systemic and textual components of *HolIV*, producing an authentic-lite rhetoric that the nation’s economic and industrial base was highly valuable to military endeavours.

Controlling the Czechoslovakian arms industry was crucial to Hitler’s overall plans for European conquest. Although the territory was not as large as Austria, the issue of the transfer of the Sudetenland to the German Reich was a highly significant in solidifying the nation’s position as a European power. By taking over the land, Germany had access to the Skoda Works factory at Pilsen, the one Europe’s major arms suppliers (ibid, p. 174). The economic benefits of expanding the German Reich’s borders into Austria and Czechoslovakia were stark. Between 1936 and 1942, 50% of total German industrial investment was invested into the nation’s economic and industrial planning, which continued into the conflict and employed forced labour (Biesinger, 2006, p. 381). The unemployed populations of Austria, the Sudetenland, and Bohemia were rapidly absorbed into the German industrial effort

(Overy, 1995, p. 196). In 1939, Austria became the site of a new expansive steel and armaments complex near Linz, and the industries of Bohemia were integrated into industrial programmes (ibid, p. 197). The Skoda Works produced new artillery range of howitzers for the German army (Bishop, 2002, p. 124). The industrial developments in Germany's newly acquired territories highlight the intrinsic relationship between industry and the German Reich's aggressive expansion into Europe. The NFTs of the German Reich and Czechoslovakia reinforce this perspective systemically and textually, demonstrating the rich industrial capacity of the Czechoslovakian Republic in the 1930s. While the German Reich NFT does not allude to their neighbour's industrial expertise, the Czechoslovakian NFT is characterised by industrial focuses and by giving the nation a significant access to raw materials used to produce military units (AkatsukiEmpire, 2019; Volphied, 2019). Through system processes and visible textual information, *HolIV* produces an important expression of authentic-lite rhetoric that conveys the military, economic and industrial importance of the Czechoslovakian Sudetenland within Hitler's expansion in Europe. The event is posed within the game as an opportunity to gain industrial capacity, negating the social and cultural considerations of the Sudetenland as a territory of German-speaking peoples (Boyd, 2018, p. 333). This perspective is reconfirmed by members of the developer-curator team. When discussing the ambitions of the title, Kuiper highlights that the game wanted to adequately convey the urgent economic and political situation of the Axis powers (Pennington, 2018b). The need for raw resources from neighbouring countries, such as Austria and Czechoslovakia, was the overriding factor in why the country "experienced the need to conquer" (ibid). *HolIV* views the annexation of the Sudetenland predominantly through economic and industrial considerations, significantly excluding social and cultural factors.

However, the game system reflects upon the historical significance of the Anschluss and the Sudetenland dissonantly. After the end of the First World War, Czechoslovakia was a bigger, wealthier and more powerful country than Austria, with a major armament industry, including the Skoda works, one of Europe's leading arms manufacturers (Evans, 2005, p. 665). This economic disparity between

the significance of the two nations is illustrated through their respective NFTs. Czechoslovakia was given a unique NFT denoting the industrial importance of the nation (Steam, 2017). Yet, Austria remains with a generic NFT with no unique historical focuses. This disparity demonstrates a crucial expression of authentic-lite rhetoric that reinforces the industrial and economic importance of the Czechoslovakian territory to German expansionism and diminishes Austria to a nation of little historical importance.

Appeasement and the Sudetenland

Germany's demand of the Sudetenland is an historical event intimately connected to the Allies foreign policy of appeasement, and the Munich Agreement of 29 September 1938 (Yale Law School Staff, 2009). According to the United Kingdom and France, Hitler's aggressive territorial policy against Czechoslovakia was bringing Europe to the very edge of conflict (Hawes, 2017, p. 175; McDonough, 2011, p. 186). However, appeasement to Hitler was jointly adopted by both the United Kingdom and France as an approach intended to avoid war. Militarily, before September 1939, France would not act independently of Britain, and both nations were determined to avoid another conflict, guided by the thought that war would bring about the utter destruction of cities, mass loss of human life and social revolution (Carley, 2004, p. 1086; Evans, 2005, p. 617; Dilks, 1997; Kaiser, 1980, p. 193). The Sudetenland annexation is seen as the most notorious example of appeasement policy. In the face of a potential war between Czechoslovakia and Germany the Munich Agreement seemed

“sensible to many who fancied themselves sane, sober, and Christian...Because the Sudetens wanted to become a part of Germany, they seemed a poor excuse for bloodshed...another world war was unthinkable. If appeasing Hitler with the Sudetenland avoided a world war, peace was preferred. There seemed to be no way to prevent German armies from overrunning Czechoslovakia” (Eubank, 1963, pp. 278-279).

This perspective is reaffirmed by historian Johannes Koll (2010, p. 273) who argues that the annexation of the Sudetenland was welcomed by the majority of German-speaking peoples, “interpreted as the re-establishment of a historical state which had its roots in Imperial times”. Similarly, the Munich Agreement was seen domestically as an overdue correction of the peace treaties of Saint-Germain and Versailles; a “sweet revenge for the humiliations of 1918” (Mazower, 2008, p. 55). These perspectives reinforce the view that the results of the First World War had a lasting impact on the origins of a second global conflict.

In France, appeasement appeared to be a practical solution in reaction to popular sentiments. On 26 September 1938, the secretary general of the union, along with a representative of the post office, appealed to the nation that “we don’t want war” (Bell, 1986, p. 92). Georges Bonnet, the French foreign minister, adamantly opposed intervention, discouraging the Czech government from counting on French support (Campbell, 1938, p. 194). On 29 September 1938, Hitler, Mussolini, Chamberlain, and French Prime Minister Edouard Daladier offered the Czechoslovakian Sudetenland to Germany to save peace; the nation was made to give up the Sudetenland without a fight and no Czechoslovakian representatives were present at the talks (Hawes, 2017, p. 175). According to the Munich Agreement, the evacuation of Czechoslovakian troops would commence on the 1 October, and the “final determination of the frontiers will be carried out by the international commission” (Yale Law School Staff, 2009). Taylor (1964, pp. 234-235) ironically defined the Munich treaty as “a triumph for all that was best and most enlightened in British life...a triumph for those who had preached equal justice between peoples”. In a public statement on the 30 September, Chamberlain said,

“We, the German Führer and Chancellor, and the British Prime Minister, have had a further meeting today and are agreed in recognizing that the question of Anglo-German relations is of the first importance for our two countries and for Europe. We regard the agreement signed last night and the Anglo-German Naval Agreement as symbolic of the desire of our two peoples never to go to war with one another again. We are resolved that the method of consultation shall be the method adopted to deal with any

other questions that may concern our two countries...to contribute to assure the peace of Europe.” (Hacken, 2018).

In the immediate aftermath of the Munich Agreement, the appeasement contributed to stopping a renewed European war occurring in 1938. On 1 October 1938, German troops marched across the border into Czechoslovakia, and the well-equipped and well-trained Czech army withdrew from their strong positions in the mountains to allow the German-speaking area of the country to be incorporated into the German Reich (Evans, 2005, p. 678). The final advance of German troops into the territory was made before 15 October (Phillips, 1938, p. 35). Writing in 1938, James Phillips argued poignantly that “Czechoslovakia then has to meet the immediate bill for Munich, but the real liability will fall *in futuro*, and it will have to be settled by Great Britain (ibid, p. 36).

HoIIV makes some attempts to systemically model the creation of the Munich agreement. For instance, there is a large number of specific system processes that must be completed by other nations, and the player, in order for the Sudetenland territory to be given to the German Reich. The ‘Demand Sudetenland’ focus can only be met if certain system prerequisites are met. Firstly, and most evidently, Germany must have completed the ‘Anschluss’ focus (AkatsukiEmpire, 2020a). This authentic-lite rhetoric bound into the system of *HoIIV* reemphasises the premediated plan of Hitler to sequentially and aggressively expand the borders of the German Reich during the mid-1930s in preparation for war. The NFT repeatedly encourages the historical perspective that Hitler was planning for total German domination over Europe (Hauer, 1978). Secondly, in order to complete the ‘Demand Sudetenland’ focus, Germany must have over 750,000 ‘Manpower’ actively deployed. This in-game statistic encompasses both the number of people serving in the different branches of the military, and the total number of people available for active service (Lillebror, 2016b). Through this large number of required of deployed troops, *HoIIV*’s prerequisites convey an argument that the nation was consistently rearming, training, and increasing their armed forces to wage a European conflict of aggression and expansion.

When the 'Demand Sudetenland' focus is successfully enacted, the game's processes involve multiple nations such as the United Kingdom, France, and the Netherlands (AkatsukiEmpire, 2020a). However, this system process is complicated by the game's subsequent expansions packs and changes since its release. For example, if Hungary owns Czechoslovakia at the time of the 'Demand Sudetenland' focus being enacted, they are given the opportunity to systemically react to the event (AkatsukiEmpire, 2020a). In another example of the game's diverse system processes, if the Netherlands finds itself as the leader of the Allies faction, it gets given a unique event for the 'Munich Conference' (ibid). These different processes for ahistorical considerations of the event still produce authentic-lite rhetoric which argues that the Sudetenland annexation is an inevitability in the build-up to a conflict. The German Reich will always attempt to proceed with annexation no matter which nation owns the territory. This partial historical interpretation is reinforced in the changelogs. In the balance logs of Patch 1.1, released on 30 June 2016, an entry reads,

"If the Munich agreement can't happen (depending on various wars for GER or CZE) CZE will now get a different event about ceding the Sudetenland or giving GER a wargoal" (SoISys, 2017a).

Similarly, in version 1.4, the game was rebalanced so the 'Demand Sudetenland' would be sent to Czechoslovakia's overlord "if there is one" (Dauth, 2017). Therefore, even within the game system, the computational code hidden behind the game's visible computations and textual expressions displayed to the player argues that the political issues regarding the Sudetenland are an inevitable aspect of the epoch. As a result of the many different contingencies within the system and simulation, there are ten different models for how the game system can process the outcome of the Munich Conference; nine of these are ahistorical (TalkingKittyCat, 2020).

The historical event description for the Munich Conference also imparts curated interpretations of the epoch. The description, from the perspective of the German Reich, reads:

“Talks have been held in Munich between the leaders of Germany, Britain, France and Italy to discuss the future of Czechoslovakia. Both the British and French have accepted our claims to the Sudetenland as legitimate, and their previous offers of support to the Czechs have been rescinded. Recognising the hopelessness of their situation, the Czechs have surrendered the Sudeten territories to us. Their oppressed German inhabitants will at long last be brought into the Vaterland!” (ibid).

The description reinforces the lasting impact of the Treaty of Versailles on the origins of Second World War. In this text the Sudeten people are framed as an oppressed minority existing outside of their rightful country. However, despite the fundamental historical significance of the annexation of the Sudetenland, the event only produces marginal effects and benefits to the A.I. or the player. By enacting the event, the German Reich gains ownership of the Sudetenland and Eastern Sudetenland territories (AkatsukiEmpire, 2020a). This, as previously argued, is significant in producing an authentic-lite rhetoric that annexing the territory provides the German Reich a strong industrial base to continue their rearmament programme for the inevitable European conflict. However, alternative system processes suggest that the event was less significant in comparison to other landmark events. For example, World Tension is only raised by a net total of three points (AkatsukiEmpire, 2020a; ReAn, 2020a). This is in stark contrast to the game system’s 10% increase in World Tension through the ‘Anschluss’ focus. For a landmark event considered crucial to the origins of the Second World War, the annexation of the Sudetenland is viewed by *HoIV* as only nominally increasing global tension. This particular statistic offers a counter argument to other systemic and textual expressions of authentic-lite rhetoric which argue that the event was historically significant. Nevertheless, many other systemic and textual aspects of the ‘Demand Sudetenland’ focus, and specific Czechoslovakian focuses, do demonstrate the importance of this landmark geopolitical event before the outbreak of the Second World War.

Systemic and Textual Portrayals of Appeasement

Holliv's computational system conveys curated expressions of authentic-lite rhetoric regarding the failure of appeasement. Six months after the Munich Conference, public opinion quickly soured on the policy of appeasement as Hitler invaded Prague in March 1939 and tore up the conditions of the Agreement (McDonough, 2011, p. 186). On the German Reich NFT, this event is conveyed through the 'Fate of Czechoslovakia' focus (AkatsukiEmpire, 2020a). The focus reductively depicts the event, immediately giving the German Reich the Czechoslovakian territories of Bohemia and Moravia and demonstrating the innate tensions between historical authenticity and the requirements of a playable computational simulation (ibid). World Tension is also raised by 5%, projecting an argument that the German invasion of the remainder of Czechoslovakia was as potent as the remilitarisation of the Rhineland, but not as much as the Anschluss. The 'Fate of Czechoslovakia' focus reinforces the game's authentic-lite rhetoric that the German Reich were on an aggressive and expansionist pre-determined path towards an inevitable global conflict that would originate in Europe.

On 1 September 1939, after the remilitarisation of the Rhineland, the annexation of Austria and the Sudetenland, and the invasion of Czechoslovakia, Germany invaded Poland. Two days later Chamberlain stated that his mission to appease Hitler, which had been the primary aim of his foreign policy, was in ruins (McDonough, 2011, p. 186). The Prime Minister, in correspondence to Margot Asquith on 11 May 1940, stated that "The day may come when my much-cursed visit to Munich will be understood" (Self, 2006, p. 435). Kaiser (1980, p. 192) argues that Britain's stance of appeasement was based off practical concerns "since Britain must if possible, avoid war and halt the arms race, and since collective security had failed, London must help to secure peace by removing existing sources of conflict". Although historian John Charmley (1989, p. 212) argued that Chamberlain's historical reputation might rise with further revision, across the remainder of the twentieth century and into

the twenty-first century, historians exploring Chamberlain have consistently provided critical accounts (Middlemas, 1971; Fuchser, 1982; Adams, 1993; Parker, 1993; McDonough, 1998; 2019; Dutton, 2006; Ferguson, 2007). This historiography reinforces the accepted view that appeasement was a failed British foreign policy. Critically, *HolIV* also conforms to this narrative. If the United Kingdom is currently losing in a conflict with the German Reich, an event titled ‘Chamberlain Resigns’ appears to the player, and states:

“With the war developing to the detriment of us and our allies, the Prime Minister has come under fire for both his peacetime and wartime decisions at critical junctions. At a moment when Britain needs to stand united...portions of the parliament holds Chamberlain in contempt...Chamberlain has advised the King to call on Winston Churchill. Churchill, who has long warned of the war...is believed to be capable leading us through it” (Elfiwolfe, 2020a).

When this event occurs, the United Kingdom gains a 10% boost in both its stability and war support statistic (ibid). This is an expression of an enduring historical national narrative in Britain. After the Munich Agreement was ignored by Hitler in March 1939 and after the German invasion of Poland, Chamberlain was collectively viewed as an unpopular politician who had failed to avoid a new European war. Instead, public opinion moved decisively towards favouring Winston Churchill, an ardent and public opposer of appeasement (Levy, 2006, p. xiii).

The game system surrounding the Sudetenland crisis and the Munich Agreement is complex and operates on a multitude of systemic, textual, and visual levels. However, it must be noted that, as a campaign progresses, the historical characteristics of the game system are diluted in favour of a counterfactual narrative which is directed by the player’s actions. *HolIV*’s game system progressively models more alternate history scenarios, and as a consequence, partial and curated expressions of historical interpretation become more obfuscated. As the game simulation processes more computations and equations, over time counterfactual narratives are privileged more than historical discourses. Therefore, with this obfuscation, the thesis does not explore how *HolIV* models the

invasion of Poland by Nazi Germany, widely considered the beginning of the Second World War in Europe. However, the system's gradual favouring of alternative history during a campaign reinforces the thesis's perspective on 'non-play' and utilising paratexts. Without the play element, and consultation of HOI4 Wiki, the thesis can view how the structures, processes, and text associated with the NFTs convey curated expressions of authentic-lite rhetoric before they are accessed and altered through play.

Conclusion

The German NFT system of *HoIIV* conveys a historical narrative of German aggressive territorial reclamation. In the case of the German remilitarisation of the Rhineland in 1936, in-game bonuses given to the player by enacting the 'Rhineland' focus demonstrate the extent to which the developer-curators view the event as historically important to the political ambitions of the German Reich and to the inevitable outbreak of the Second World War. Without completing the 'Rhineland' focus the player cannot station military units inside a crucial territory which borders France, Belgium, and the Netherlands. Furthermore, the NFT system dictates that without a remilitarised Rhineland, Germany cannot make any further aggressive diplomatic expansionist progress in Austria or the Czechoslovakian Sudetenland. The player will instead need to act against these nations manually, utilising more time and resources than through the streamlined narrative of popular history which is modelled in the NFT.

Textually, the NFTs also highlight the social importance of remilitarisation to the German populace. The punitive terms of the 1919 Versailles Treaty are cast within the game as a distinct encouragement for the German Reich to reclaim the territory and their national prestige. The combined textual and system elements of the NFT also highlight how France and the United Kingdom could not militarily contest the remilitarisation due to domestic issues and internal public opinion. The combined systemic and textual effects of the 'Rhineland' focus are a critical example of authentic-lite rhetoric as conveying preferred historical narratives. In many forms

the German Reich NFT expresses the significance of Hitler's success of remilitarising the territory. The event is marked as the first domino to fall on the road to the Second World War. The remilitarisation was the first expansion of Germany's borders since the end of the First World War. The event's authentic-lite rhetoric argues that if the nation was unable to remilitarise the territory, they would not have had the political capital and military capacity to aggressively claim more land in central and eastern Europe.

The Anschluss of Austria is conveyed through different means, yet its significance to the historical narrative of German aggression is not diminished. The textual components of the NFT demonstrate the event as the inevitable integration of the nations that was envisioned by Hitler in the 1920s, and earlier by German states in the 1800s. From this popular argument, the NFTs present an authentic-lite rhetoric that the annexation of Austria was a majority ambition of the government and population. This perspective discards any element of Austrian Nazi coercion or repression used against the populace. The NFTs immediately gift the entire Austrian nation to Germany with no resistance, increasing the geopolitical and military power of the German Reich. Finally, the German annexation of the Sudetenland is portrayed as the final failure of appeasement against Hitler. The associated text for the Munich Conference demonstrates the British position that the Sudetenland could be considered German land, and that the welfare of a nation such as Czechoslovakia was not worth risking a global conflict. The territory is also systemically conveyed as industrially important. The partial curation of the territory as being rich in raw materials and resources echoes historical developments in Czechoslovakia that emphasise the nation's significant industrial capacity. Ultimately, the NFT of the German Reich conveys an overarching partial and curated view of authentic-lite rhetoric that the nation maintained a premeditated pathway of aggressive territorial reclamation and expansion towards a global conflict.

Chapter 6: Building for War: The NFTs as Models of Economy and Industry

HoIIV's NFTs are 'engines of industry' which simulate how nations economically and industrially developed. In an online preview article, *HoIIV* is described as a logistical strategy game that relies on players making industrial improvements (Senior, 2014). Reflecting this view, Lind (Pennington, 2018a) argues that *HoIIV* was created with the intention of modelling logistical strategy: "HOI4 for me initially had the objective to prove that WW2 strategy games could be approachable and easy to pick up...I wanted to make a WW2 game that put a lot of focus on the equipment and production aspects". Similarly, Kuiper (Pennington, 2018b) argues that *HoIIV*'s computations attempt to illustrate the relationship between a nation's industrial development and their capacity to wage war. This argument concurs with dominant historical narratives which state that the prosperity of national economy and industry in relation to war was a primary concern for all nations (Overy, 1995, p. 1; Tooze, 2007). The system and textual aspects of the NFTs of the German Reich, Soviet Union and United Kingdom present authentic-lite rhetoric that nations across the epoch attempted to develop their industry, invest in rearmament, and secure vital resources in preparation for a conflict.

Firstly, the chapter will differentiate alternative models of economic and industrial progression within *HoIIV*. Alongside the NFTs, the industrial research technology tree also conveys curated historical interpretations concerning economic and industrial changes. The chapter will then explore three significant thematic aspects of how the NFTs express curated interpretations of German, British, and Soviet economy and industry: planning, self-sufficiency, and rearmament. In its representation of Soviet economic and industrial planning, the nation's history is characterised by the Five-Year Plan. The Soviet NFT projects a reductive representation of the plan, eschewing social and political considerations. In contrast, the focuses upon the German NFT demonstrate how national economic developments were in service of preparing for war. The German NFT links

significantly to alternative systems which model an economic plan that placed MEFO bills at the centre of a national programme that funded a potential conflict.

The NFT also models national self-sufficiency of raw materials and resources. For the German Reich, the policy of autarky is seen by the developer-curators as highly successful. Through statistical bonuses, *HolIV* presents a curated historical interpretation that is contested by accepted narratives that determine German self-sufficiency as inefficient. The Soviet Union's attempts at self-sufficiency in resources are set by the NFTs as having limited impact. *HolIV*'s representation of Soviet industry in the Urals region is characterised by historical precedents, yet the system bonuses given to the player offer marginal improvements in industrial output. In contrast, the United Kingdom is conveyed through significantly different perspectives. As a democracy, the nation is limited by system requirements for planning their economy. Through considering the role of the British Empire, *HolIV* prescribes a historical interpretation that the United Kingdom was improving the industrial capacity of their colonies and dominion territories in order to effectively participate in a coming war.

Rearmament is a crucial aspect of the economic and industrial history of the epoch. As time progresses within *HolIV*, more overt expressions of rapid rearmament are conveyed to the player in the NFTs. This illustrates the argument that Germany was directing the economy towards a conflict through programmes of rearmament. In contrast, the United Kingdom's rearmament policy is understood in two phases. The first phase is characterised by limited change as a consequence of the nation's democratic ideology. In contrast, the second phase of rearmament represents a mass movement towards a conflict based on an understanding that the United Kingdom would fight against a rapidly rearming German Reich.

Alternative Economy and Industry Models within *Hearts of Iron IV*

In *HoIIV*'s strategy guide, industrial production is highlighted as a “number one focus” (Goodfellow, 2016, p. 9). During a campaign, alongside progression through the NFTs, it is also necessary to progress the nation through the comprehensive ‘Industry’ section. This is a game mechanic visually and systemically represented as a technology tree and is accessed by clicking on button at the top of the screen marked by a laboratory beaker symbol (Zauberelefant, 2020b) (Figure 17). This mechanic is available to all in-game nations. There are eleven categories of research, with the ‘Industry’ category representing economic and industrial aspects of the period and reflecting historical changes to construction and industry (Lillebror, 2016).

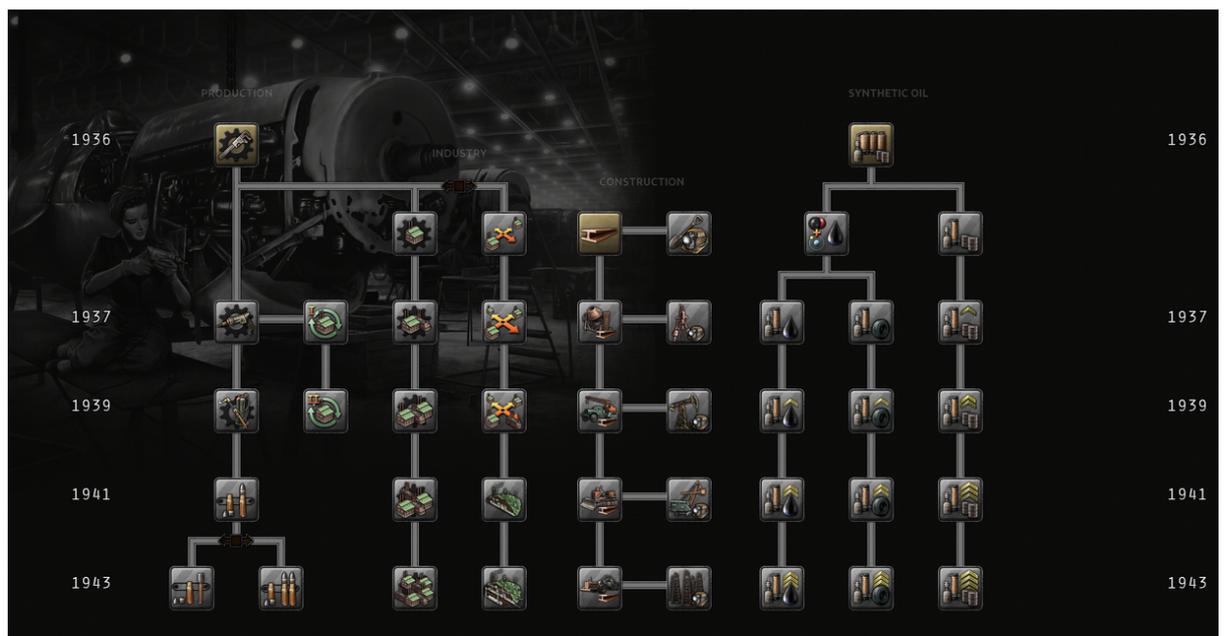


Figure 17: Screenshot of *Hearts of Iron IV*'s 'Industry' technology tree.

This technology tree strictly models industrial change, whereas the NFTs attempt to illustrate broader historical changes through diplomatic, military and political phenomenon. Progress through the industrial research tree allows the player to build new Military and civilian factories (Goodfellow, 2016, p. 10). These units can be further improved to be more efficient at converting raw materials and resources and producing weapons and vehicles (ibid, p. 10). This is a tangible benefit to the

player throughout a campaign. The individual in-game benefits of the industrial technology tree are minimal; many of the technologies result in a 10% increase to statistics such as production efficiency (Lillebror, 2016). The industry technology tree conforms to the game system's conception of technological determinism, creating authentic-lite rhetoric that marks the whole epoch as characterised by progressive industrial growth. This view can be seen in historical data on industrial programmes. For instance, the Soviet Union's yearly expenditure on industry was estimated at 7942 million rubles (Harrison and Davies, 1997, p. 369). In the United Kingdom, industrial production increased sharply between 1936 and 1938 (Capie and Collins, 1980, pp. 43-46). Although a reflection of historical statistics and industrial trends, the minimal benefits within *HoIIV*'s industrial technology tree should be seen as supplemental increases that coincide with the NFT's specific systemic modelling of unique historical industrial developments.

Alternative in-game systems also reflect curated expressions of industrial change. In *HoIIV*'s twenty-third development diary (Johan, 2015), the developer-curators publicly determine the role of industry as "industry buildup" (ibid). Through a campaign, the player can add new buildings to a nation, including military factories, civilian factories, and synthetic refineries (ibid). This highlights the curated thematic history of the period. *HoIIV* is cast by the developer-curators as a progressive march towards war through industrial improvements. The term 'buildup' is particularly significant, presenting authentic-lite rhetoric on the progression of industry as enacted for a specific historical purpose. It is a partial interpretation that developments in national industry were made in order to contribute to a global conflict between major powers.

HoIIV's industrial changes are worthy of scrutiny. However, this is not the focus of the thesis, which demonstrates how the NFTs express curated historical interpretations between industrial and economic events and the origins of the Second World War. The NFTs produce unique expressions of authentic-lite rhetoric which distil curated perspectives on how the three nations approached their industrial and economical concerns in the years preceding the war. As a conceptual

simulation (Chapman, 2016, p. 70), *Holliv* abstracts specific economic and industrial histories predominantly through NFT events. Through this convergence point of system, visuals, and text, important expressions are created that curate and interpret the development of a nation's economy and industry.

Economic and Industrial Planning

When discussing fluctuations in European economies between 1850 and 1950, Ingvar Svennilson (1954, p. 7) argues that:

“economic growth has been associated with industrialization, and this has meant a progressive and thorough transformation of the economy...A change of production methods, mainly in the direction of more advanced mechanization; A change of input-output between raw materials and end-products”.

The contention that economic growth and industrialisation are intimately related is also a significant argument within discourses on the origins of the Second World War. The waging of war rested on economic foundations (Markevich, 2008, p. 78). Extensive economic and industrial policies were implemented in order to maximise a nation's capacity to participate in conflict. The NFTs of the German Reich and Soviet Union convey the perspective that economic and industrial planning was crucial to preparing for war, the means by which authoritarian nations could effectively mobilise and coerce their economies and industries (Scheweitzer, 1946, p. 2). The NFTs demonstrate how the two nations embraced central planning in order to improve their economic and industrial capacity to wage a prolonged total conflict. In contrast, the United Kingdom is not considered. This is a consequence of the British NFT not including any focuses that simulate economic planning, an exclusion that can be explained by the argument that “wars in the United Kingdom had been financed largely by issuing debt” (Cooley and Ohanian, 1997, p. 440). As *Holliv* does not include any systems of global finance or currency, it would be difficult for the British NFT to elucidate upon a particular economic model that is excluded in the simulation.

The Soviet Union's Five-Year Plan

The Soviet Union NFT has not seen any changes from the game's initial release, maintaining the same structure through almost five years. This is a rare example of an immovable digital structure within an ever-changing title. Through online forums, players have been critical of the country's static NFT (SirL, 2019). However, from a historian's perspective, a stationary NFT is extremely useful. It can be interpreted that the developer-curators have held the most confidence in this model; the historical interpretations within the nation's NFT could be determined to be considered authentic, balanced, and without the need for alteration.

The industrial section of the nation's NFT is known as the 'Finish the Five-Year Plan' branch and is led by the 'Finish the Five Year Plan' focus (DeadHeat16, 2020a). By sitting at the top of the nation's NFT, *Holliv* makes an important visible curated interpretation which expresses the primacy of economic and industrial planning (Figure 1). The Five-Year Plan was a series of thirteen centralized economic and industrial programmes mandated by the Soviet government between 1928 and 1991 (Harrison, 2006, p. 1097). The 'Finish the Five Year Plan' national focus represents the completion of the Second Five-Year Plan that ran from 1933 to 1937 (Davies, 2014, p. 1). The focus' textual description states that the player is attempting to complete the nation's second plan (Deadheat16, 2020a). Critically, the Soviet Union NFT does not include any other focus that model the nation's shift to the Third Five-Year Plan. This presents a curated interpretation that by completing the 'Finish the Five Year Plan' focus, the Soviet Union had successfully reached its overall target of economic central planning and had no need for additional programmes.

The NFT's reductive representation of the Five-Year Plan is compounded by its exclusion of the Gosplan, a State Planning Commission that administered and supervised economic and industrial policy until the dissolution of the Soviet Union

in 1991 (Schmid, 2018, p. 128). Gosplan was established in 1921 as a general planning organisation with a defined remit of long-term economic planning, but it assumed more control during the late-1920s and 1930s (Carr, 1952, p. 375). It was critically responsible with the creation of the first Soviet five-year plan that called for an acceleration of industrialisation (Ray, 2017). There is no mention of Gosplan throughout the entire simulation of *HolIV*. This oversight presents an authentic-lite rhetoric that Gosplan is not considered significant enough to the popular history of the period. This is a deliberate decision that fundamentally changes the game's representation of the Soviet Union's economic history. Through this exclusion, the developer-curators convey a curated ahistorical image that bypasses Gosplan's direct role in the nation's economic and industrial planning throughout the twentieth century.

The first Five-Year Plan between 1928 and 1932 was conceived as a governmental version of corporate economic planning. In 1930, the plan was described as “a leviathan business undertaking, owning and controlling, as in the Socialist formula, the means of production, distribution and exchange” (Somerville, 1930, p. 624). The Five-Year Plans “reinforced a strategic choice to separate the Soviet Union from the chaotic, conflict ridden capitalist world” (Pons, 2002, pp. ix-x). This analysis conveys the political ambitions of central planning as an antithesis to capitalism. However, within historical narratives aimed at general readers, the dominant intention of the Five-Year Plans was to industrialise the Soviet Union as quickly as possible in preparation for war against capitalist nations (Nove, 1992). The industrial targets for the Soviet Union economic plan were enormous. In 1929, the ‘Five-Year Plan for National Economic Construction’ envisaged the doubling of Soviet industry's capital stock between 1928 and 1933:

“...pig iron output was to rise from 3.3 to ten million tons per year, coal from 35.4 to seventy-five million tons and iron ore from 5.7 to nineteen million tons. Light industry would expand by seventy per cent, national income by 103 per cent, agricultural production by 55 per cent and labour productivity by 110 per cent. Within five years production costs were to fall by 35 per cent and the retail price of industrial goods by twenty-three per cent. The

annual rate of investment, set at a staggering 21.4 per cent for 1928-29, would reach 23.8 per cent in 1932-33" (Ward, 1993, p. 79).

This staggering level of projected expansion in heavy industry has been described as "overambitious" (Hunter, 1973, p. 237). The Five-Year Plan stipulated very fast growth, and its main emphasis was on "the production of energy and of construction material: coal, oil, electricity, steel and other metals" (Westwood, 1979, p. 89). Hobsbawm (1995, p. 96) argues that between 1929 and 1938 industrial production tripled, rising from 5% to 18%.

Yet, while the Five-Year Plans were ambitious in scope, they were also cruel (Dukes, 2015, p. 124). Workers' rights were severely curtailed. The working day, cut to seven hours in 1927, was lengthened to eight hours, and the working week was increased to six out of seven days (Acton and Stableford, 2005, p. 327). It also became a criminal offence, punishable by a prison sentence, to change jobs without direct authorisation from employers (ibid). Absenteeism was punishable by a period of up to six months of compulsory labour at 75% normal pay rates (ibid). The immediate impact was strongly felt in farming regions, where the forced collectivization of agriculture took place (Senelick and Ostrovsky, 2014, p. 292; Dukes, 2015). Labour and social historians have pointed out that the social turbulence caused by the Five-Year Plan's voracious demand for workers had immediate and profound consequences (Andrle, 1988; Kuromiya, 1988; Rassweiler, 1988). In the first two months of 1930, 60 million people were herded onto collective farms (Senelick and Ostrovsky, 2014, p. 292). The economic hardships placed on Soviet society were realised through chaotic conditions in the production of food and depopulation (Arendt, 2004, p. 399). Devastating harvest failures in 1936 had a devastating knock-on effect on the population until early 1938 (Manning, 1993, p. 120). Neither *Holliv's* systems or text display the social and cultural magnitude of these policies on the Soviet people. By enacting the 'Finish the Five Year Plan' focus, the nation's population statistic, nor its stability modifier, decrease. This is a surprising omission considering the scale of mass social change and hardship as a result of the Five-Year Plan. However, it is an exclusion in line

with the developer-curators abstraction of the epoch to disregard societal changes (Goodfellow, 2016, p. 3). This is an example of *HolIV* expressing a curated historical interpretation which does not conform to scholarly consensus and popular representations or acknowledge the fundamental social significance of the period. Instead, the Soviet Union NFT simply argues that the Five-Year Plan gave the nation increased industrial development and capacity and does not account for its destructive effect on the Soviet people.

The two Five-Year Plans beginning in 1928 and 1933 fundamentally reshaped the nation (Tooze, 2007, p. 456). However, historical narratives determine that they failed; all areas of Soviet industry, transport and agriculture could not match its impossible ambitions. The main factor behind this failure was the Soviet Union's starting position from a "low base" of industrialisation (Barber and Davies, 1994, p. 96; Turin, 1932, p. 58). The country was predominantly agrarian, and forced collectivization overturned generational agricultural traditions (Senelick and Ostrovsky, 2014, p. 292). The targets were unrealistic (Hunter, 1973, p. 239). From 1931 to early 1934, the fifth-year targets for the Five-Year Plan were consecutively reduced (Harris, 1999, p. 148). For example, the final target for the production of refined copper was less than one-sixth of the figure projected in 1931 (Zaleski, 1980, p. 108). The in-game description for the 'Finish the Five Year Plan' focus rhetorically underplays the colossal undertaking of the plans: "The second Five Year Plan prioritizes the development of heavy industry. The Soviet Union must develop quickly in order to match the Capitalist and Fascist powers of the West" (Deadheat16, 2020a). The description conveys the Five-Year Plan within recognisable narratives as the ultra-rapid industrialisation of heavy industry (Hobsbawm, 1995, p. 96). Furthermore, the description suggests that the nation was aware of the reindustrialisation of European powers and was dedicated to matching their efforts in preparation for war. This historical argument is also proposed by Taylor (1991, p. 18); all the global powers adopted a similar strategy, mobilising their industry in order to produce resources for war. As stated in the historical description of the 'Finish the Five Year Plan' focus, the player is experiencing the nation's second centralised plan. According to Peter Kenez (2006,

p. 111), the impact on industry during the second Five-Year Plan was “less chaotic, at least compared to the extraordinary period at the beginning of the industrialization drive”. This stage of the plan was also underfulfilled; the planners still set impossible goals, and the standard of living in the Soviet Union continued to be extremely low (ibid).

However, the description for the ‘Finish the Five Year Plan’ focus does not solely produce distinct expressions of authentic-lite rhetoric. Through computation, the focus makes persuasive historical claims that link the Soviet Union’s economic and industrial development to the nation’s modestly increased capacity to wage war. By completing the focus, the player is given a total of eight additional buildings across two random states (DeadHeat16, 2020a). This reward is moderate, allowing a small expansion of construction within a limited section of the nation. This action is immediately processed when the focus is completed. Out of the eight buildings given to the player, four of them are designated as civilian factories, a specific building unit that improves the production capacity of a territory (ibid). When operational, civilian factories produce an abstracted currency of ‘consumer goods’ and speed up the construction of other buildings (Yewautumn, 2020). Typically, civilian factories are used as a currency that can be exchanged for resources such as oil and steel – for every single civilian factory unit given as part of an abstracted and ahistorical ‘trade’ deal, the player is given eight units of a specified resource (Meneth, 2016). The systemic rewards for the player in completing the ‘Finish the Five Year Plan’ focus are contrary to popular historical interpretations about the ineffectiveness of the Five-Year Plan. Instead, they illustrate Naum Jasny’s (1961, p. 142) argument that the period between 1934 and 1936 was “three ‘good’ years” of Soviet industrial practice. These years are characterised by a vast increase in industrial production, with the official published budget for 1936 set at 14800 million roubles (Harrison and Davies, 1997, p. 370). According to Soviet Union statistics, coal production in the Donbas region increased from 51 million tons in 1933 to 80.7 million tons by 1938 (Kuromiya, 2003, p. 201). Therefore, the system effects of the ‘Finish the Five Year Plan’ focus reflects a curated view that

understands the significant heavy industrial increases made by the Soviet Union between 1934 and 1936.

These rewards also produce alternative curated ahistorical expressions. For completing the focus, the player is given a surplus of civilian factories (DeadHeat16, 2020a). While this is useful, it does not reflect the economic direction of the Soviet Union during the epoch. The nation was decisively preparing for war; the Five-Year Plan was an attempt to accelerate industrial capacity for military purposes. As a component of the Five-Year Plan, in 1936 there was a sharp increase in the nation's budget share of defence, which rose in one year from 11% to 16% (Harrison and Davies, 1997, p. 371). In turn, the capacity of the Soviet Union armed forces also increased rapidly. From 1929, 586,000 people were in the army; by 1937, this figure had reached 1.7 million (Hunter and Szyrmer, 1992, p. 138). The Soviet Union's ability to wage war was significantly aided by the Five-Year Plans. Harrison and Davies (1997, p. 397) argue that the period was characterised by sharp growth in real defence spending and a descent into intense mobilisation (ibid). Westwood (1979, p. 89) argues that in an attempt to develop the Soviet Union's capacity to wage warfare, consumer goods production was minimized through the second Five-Year Plan and replaced by a programme to improve the nation's railway infrastructure (ibid). Therefore, the civilian factories given to the player are not indicative of the historical changes occurring in the Soviet Union across the epoch as a result of central economic and industrial planning. This presents an authentic-lite rhetoric that is primarily centred upon balancing digital game mechanics and systems, and not authentic reflections of history. In this instance, *HoIV* provides the player with additional building units to give the player a better opportunity to be successful within a campaign, and not to reinforce the history of the epoch.

The systemic effects of the 'Finish the Five Year Plan' focus, taken together with its textual description, produce a complex expression of authentic-lite rhetoric. The limited in-game rewards offer a perspective that the second Five-Year Plan was both useful and cumbersome in developing heavy industry. *HoIV*'s depictions argue that the Soviet's plans were inflexible and could only make marginal improvement

in limited geographical areas. Furthermore, as *HoIV* takes place between 1936 and 1948, the game also covers the timeframe of the third Five-Year Plan of 1938 which was interrupted by war (Barber and Davies, 1994, p. 95). The pace of industrial output in this iteration of the plan was marked by an increased pace of rearmament and metal producing (Harrison and Davies, 1997, p. 369). However, as has been highlighted by the exclusion of the Gosplan, *HoIV* does not reference the third plan in the NFT or anywhere else in the simulation. This is significant, illustrating that the developers did not see the third Five-Year Plan as significant in the years preceding the outbreak of the Second World War, producing an authentic-lite rhetoric that does not comprehensively reflect the sheer historical significance of the Soviet Five-Year Plans in economical, industrial, political or social contexts.

Yet, *HoIV* establishes the importance of the Five-Year Plan through the 'Finish the Five Year Plan' focus's position as the root focus on the industrial branch of the Soviet Union's NFT (Figure 1). Without completing this focus, the player cannot enact other industrial focuses which bring greater benefits to the nation's ability to fight a war. This can be most visibly seen in the 'Armament Effort' focus, which can only be accessed once the player has completed the 'Finish the Five Year Plan' focus (DeadHeat16, 2020a). The description for the focus simply states "If you can build tractors, you can build tanks!" (ibid). This systemic and textual context ties the Five-Year Plan's collectivisation and industrialisation components together cohesively. The computational effects of the focus are more explicitly tied to military construction improvements – the player is given four extra building slots and four military factories (ibid). These improvements strongly express popular history work which argues that the effects of the Five-Year Plan were solely intended to improve the military capacity of the Soviet Union (Harrison and Davies, 1997, p. 371; Nove, 1992). The authentic-lite rhetoric presented by the position of the focus on the NFT, and its chained relationship to other industrial focuses suggests that the Five-Year Plan held great historical significance across the period. By allowing the player to access alternative focuses once completing the 'Finish the Five Year Plan' focus, *HoIV* reflects a curated interpretation that although the total economic and industrial benefits to the nation's military position were not immediately achieved,

the Five-Year Plan was crucial in future industrial developments that aided the nation's ability to fight a global war against its capitalist enemies.

German Economic and Industrial Planning in *Hearts of Iron IV*

Germany's economic and industrial NFT section is far more extensive than the Soviet Union's NFT, which only contains seven focuses on the 'Five Year Plan' branch (DeadHeat16, 2020a). In a developer diary specifically looking at the Soviet Union, the developer-curators outline reductively that this branch is focused on "building up Infrastructure and Industry" (Johan, 2015). In contrast, the German Reich's economic and industrial developments are given significance by the developer-curators through the depth of its NFT. Germany's industrial branch consists of seventeen different focuses (AkatsukiEmpire, 2020a). Most of these focuses within the industrial branch are overtly historical. There is an extensive branching section of the German NFT dedicated to achieving economic prosperity and industrial dominance in central Europe (Figure 18). This section is called the 'Four-Year Plan Branch', and its associated historical description on HOI4 Wiki is brief: "This branch improves Germany's industry, adds a research slot, builds fort lines around Europe and allows the creation of puppets" (ibid). This text is instructive, conveying the tangible systemic effects and benefits of completing the branch: improving and rearming the nation in order to effectively wage war.

General histories offer similar narratives of Germany's economic progress during the 1930s; after Hitler's appointment as Chancellor on 30 January 1933 and his subsequent consolidation of political power, economic and industrial reforms were driving ambitions of the regime (Roberts, 2013, p. 24; Kershaw, 2010, p. 84). Tooze (2007, p. 1) argues persuasively that the pursuit of economic and technological progress is a crucial aspect of German history in this period, helping to make the nation "one of the largest economies in the world". As a component of this development, Germany embarked on extensive centralised programmes of economic and industrial planning from 1936 until April 1945 (Schweitzer, 1946, p. 1). By naming this entire branch the 'Four-Year Plan Branch', the developer-curators make a significant historical claim that the economic and industrial policies of the German Reich and Soviet Union were comparable (AkatsukiEmpire, 2020a). Although the nations were diametrically opposed politically – as is discussed in chapter 7 – they each deployed long-term economic and industrial planning policies. By the end of 1936, both the German Reich and the Soviet Union were using centralised economic planning to position their industrial output in preparation for a major conflict (Manning, 1993, p. 133). *HoIV* reconfirms this perspective by placing the German Reich's 'Four Year Plan' focus as the root of the industrial branch (AkatsukiEmpire, 2020a). This positioning also reflects the primary location of the Soviet Union's 'Finish the Five Year Plan' focus (DeadHeat16, 2020a). These structural similarities produce authentic-lite rhetoric that both nations, despite existing in political opposition, pursued similar economic and industrial policies of state controls and planning in preparation for conflict.

HoIV promotes the partial and curated claim of the Second World War's inevitability through specific events in the German Reich's NFT. The 'Four Year Plan' focus is the root focus of the German Reich's economic and industrial branch (AkatsukiEmpire, 2020a). The historical description of the 'Four Year Plan' focus reads very plainly: "We need an ambitious plan to provide for the rearmament and ultimate self-sufficiency of the nation. This should be achieved within the next four years" (ibid). The tone of this historical description mimics Hitler's public decrees.

An example of this rhetorical language can be found in Hitler's decree on the renewal of Berlin after their victory in the war:

"Berlin must be redeveloped and acquire the form that is its due through the greatness of our victory as the capital of a powerful new empire. In the completion of what is now the country's most important architectural task I see the most significant contribution to our final victory. I expect that it will be completed by the year 1950" (Friedrich, 2012, p. 370).

This rhetorical language is emulated through the description for the focus, immersing the player in the role of leading Germany through dictatorial posturing. Consequently, the country's economic and industrial changes are positioned within *HoIV* as policies to facilitate a militaristic campaign for global dominance.

The historical context of the 'Four-Year Plan' focus is inspired directly from a series of economic policies outlined by Hitler at an annual Nazi Party rally in Nuremberg in September 1936 (Stackelberg, 1999, p. 121). The Four-Year Plan became official government policy on 18 October with the 'Decree for the Implementation of the Four-Year Plan' (Kershaw, 2018, p. 368). The plan was a hybrid form of state-owned capitalism, allowing the German Reich to control and guide industrial production (Stackelberg, 1999, p. 119). As a consequence, Germany transformed into an armaments economy guided by central planning and ultimately led by Hermann Göring (Kershaw, 2018, pp. 365-367). By adopting a planned economy, the German Reich followed the same strategy of the Soviet Union under their rolling Five-Year Plans (Manning, 1993, p. 113). The Nazi's Four-Year Plan was designed for the nation to reach industrial independence in the production of raw materials, chemicals, and mechanical equipment (Taylor, 2010, p. 54). Under the control of Göring, the plan concentrated on rearmament, obtaining and allocating raw materials, monitoring labour deployment, and putting production under controls to ensure that priority was given to military concerns (ibid).

The Four-Year Plan was significantly connected to Hitler's aggressive expansionist foreign policy across the 1930s and longer-term ambitions of European conquest

(Carroll, 1968, p. 93). The Nazi regime embarked on an economic programme which diverted money made through foreign trade away from foodstuffs and funnelled it into industrial and economic expansion that supplied the military (Kaiser, 1980, pp. 151-154). Tooze (2007) proposes that economic and industrial progression within the German Reich was guided by policies constructed on preparing the nation for war. The German economy bore witness to a colossal industrial transformation where the productive power of central Europe was overhauled from its normal purposes and converted into a machine for war (Taylor, 2010, p. 54). This perspective positions the Second World War as an inevitable conflict that necessitated the expansion of heavy industry. The nation's sole objective of the Four-Year Plan was not achieving economic prosperity or social cohesion but rearming the German military to conquer Europe (Spicka, 2008, p. 1261). Kershaw (2018, pp. 364-366) argues that "Germany was economically pushed in the direction of expansion and war". Yet, perhaps more pertinently, Kershaw also argues that the Four-Year Plan was an attempt to prepare the industry towards an inevitable conflict against Communism (ibid). In this historical context, the Soviet Union and German Reich's first industrial focuses present a curated interpretation that Germany was undertaking similar economic planning policies as the Soviet Union, in order to wage war against them.

Within recognisable and broadly accepted historical western narratives, the Four-Year Plan is closely associated with Hitler's conception of an inevitable war. This interpretation is reinforced by *HöllV's* systemic expressions of authentic-lite rhetoric that are conveyed upon the completion of the 'Four Year Plan' focus. The NFT produces computational expressions on the apparent success of German planning as a policy to rearm and expand military capacity. By completing the focus, the player is given two 100% research bonuses for the industrial research technology tree (AkatsukiEmpire, 2020a; Lillebror, 2016). This permits the player to complete the research of two given industrial technologies instantly. The player also receives a 10% decrease in the time it takes the nation to build civilian factories, infrastructure, and synthetic refineries. These effects are significant computational expressions of authentic-lite rhetoric. By giving the player two 100%

research bonuses, the game conveys a partial historical image that the Four Year Plan offered immediate benefits to Germany's industrial progression. Similarly, by reducing the time it takes to construct industrial buildings, specifically synthetic refineries, *HolIV* concurs with Kershaw's (2018, pp. 364-367) analysis that the production of synthetic oil and industrial improvements were at the forefront of Göring's strategy. These in-game rewards are a systemic representation of the success of German planned economics during the 1930s, positioning the Four-Year Plan as critical to the industrial and military development of the nation towards war.

While the 'Four-Year Plan' focus projects authentic-lite rhetoric that central economic planning had immediate benefits for the industrial capacity of Germany, historians contest the effectiveness of the programme. Overy (1995, p. 196) argues that the extension of the Four-Year Plan's armament proposals into the initial years of the Second World War was a consequence of its failure to adequately prepare for a wide-scale conflict. The remit of central planning expanded during the war with the establishment of the Office of the Four-Year Plan (Evans, 2009, p. 21). In 1940, the organisation demanded that millions of workers in occupied Poland were to transfer to agriculture, where there was a serious labour shortage (*ibid*). On 17 September 1940, the organisation began seizing all Polish and Jewish property in the incorporated territories (*ibid*, p. 23). Kurt Lachmann (1941, p. 24) states that Germany continued to increase its industrial holdings during the war in public utilities, mines, and railways. *HolIV* does not convey these subsequent actions, or present arguments that the Four-Year Plan did not produce effective outcomes, with little positive effect on industrial production (Overy, 1995, p. 199). The plan's ambition to achieve greater industrial output through the rationalisation of weapons and production methods, was undermined by the pervasiveness of traditional work methods, the excessive use of skilled labour, and wasteful material policies (*ibid*). In this respect, Hitler failed as an economic leader, holding ultimately unrealistic expectations of the nation's productive capacity (Heyl, 1973, p. 85 and p. 95).

Instead, the system effects of completing the 'Four Year Plan' focus present a computational claim that Germany achieved immediate success with the introduction of the Four-Year Plan. There is an innate tension here between *HöllIV*'s curated understandings of German industry, and the historical consensus. This is a consequence of the systemic construction of the NFTs. At a fundamental level, the NFTs are technology trees of constant progression (Ghys, 2012). Therefore, in this instance, *HöllIV*'s expressions of authentic-lite rhetoric are confined to game design precedents, producing arguments which favour the needs of the computational simulation rather than prioritising projecting historical accuracy. The developer-curators construct a partial and systemic interpretation of history that understands the Four-Year Plan as a success due to the mechanics of the NFT functioning as a model of player progression through the epoch. As a result, historical arguments concerning the effectiveness of the Four-Year Plan are overexaggerated and subsequently made ahistorical by the processes of the simulation in order to produce pragmatic game design. The game system is prioritized over perspectives of 'historical' authenticity, reaffirming both the gameness of *HöllIV*, and practical balancing of the simulation's computations as an inevitable component of the artifact.

Economic Planning and Manipulation: The Four-Year Plan and German MEFO Bills

Despite the evisceration of the Four-Year Plan's effectiveness by historians, in-game expressions of authentic-lite rhetoric present an interpretation that the 'Four-Year Plan' focus is beneficial to the player. Completing the focus allows Hjalmar Schacht becomes an appointable political advisor. Nations within *HöllIV* possess a collection of fictional or historical figures that can be recruited to the government by spending Political Power points (Dauth, 2019b). *HöllIV*'s government statistic is the political representation of who is controlling the nation (Zaubelefant, 2020a). Appointing specific political advisors to the player's government grants persistent bonuses, providing that the advisor is not removed from office (Figure 19). There are over a hundred historical figures in *HöllIV* who are designated as political

advisors (Dauth, 2019a). When employed, these individuals bestow bonuses to other components of the simulation; Schacht is characterised as a ‘Captain of Industry’, a moniker which bestows bonuses including a 10% speed increase towards the construction of infrastructure, civilian factories, and refineries (ibid). This computational attribute placed on Schacht is a curated reflection of the individual’s significance to Germany’s economic and industrial progress is processed by developer-curators into rhetorical data that impacts upon *HolIV*’s simulation of history.



Figure 19: Political advisor menu for the German Reich with Hjalmar Schacht’s in-game statistics visible in an accompanying tooltip box.

Schacht was a prominent German economist who served as the President of the Reichsbank between 1923 and 1930 (Sutton, 2010, p. 25). During the 1930s, Schacht was a fundamental figure within German finance institutions, and was reappointed to the Reichsbank on 7 March 1933, holding the position until 20 January 1939 (ibid, p. 58; Hehn, 2005, p. 100). The in-game eligibility of Schacht to join the German Reich after completing the ‘Four Year Plan’ focus produces interesting historical curations, indicative of the myriad ways in which interacting

with the NFT produces a set of expressive computations that intersect with other components of the simulation. In the case of Schacht, it is at odds with history. From 1936, Schacht was vehemently opposed to Hitler's racial outlook, economic policies, and the notion of conflict with western powers, and resigned in November 1937 (Tooze, 2007, p. 23; Overy, 2011, p. 496). Schacht's involvement with the regime was not due to party political allegiances, but as attempt to influence economic renew and policies (ibid). In version 1.6 of *HolIV*, if the player completes the 'Demand Sudetenland' focus, Schacht is made unable to be appointed to the government of the German Reich; if Schacht was already a member of the government, upon the annexation of the Sudetenland, he will immediately leave (SolSys, 2019c). Patchnotes for version 1.6 state that Schacht's overall cost of recruitment is reduced "to make up for the fact he is more limited in his availability" (ibid). This restriction is authentic-lite rhetoric that systemically echoes Schacht's disdain for Hitler's foreign policy expansions into continental Europe, particularly the annexation of the Sudetenland and violent persecution of the Jewish population (Eubank, 1968, p. 206; Schacht, 1967, p. 59). Schacht's involvement in the German Reich's government demonstrates how the developer-curators identify his significance to the nation's economic history. Similarly, his removal from the government upon the nation annexing the Sudetenland produces a developer-curator understanding that Schacht was, towards the end of the 1930s, politically opposed to Hitler's regime. Schacht's inclusion within *HolIV* as a titan of industry highlights how the developer-curators understand popular conceptions of his importance to the economic history of the nation and his later waning governmental influence.

Schacht's inclusion in *HolIV* also stems from his foundational economic influence preceding the campaign's 1936 start date. Through his appointment as Minister for the Economy, Schacht oversaw the implementation of controls to German bank credit and devised a scheme to use MEFO bills (Hehn, 2005, p. 100; McDonough, 2019, pp. 76-77). The *Metallurgische Forschungsgesellschaft*, shortened to MEFO, was an institution set up by the Nazi government to purchase armaments, paid for them by issuing interest-bearing bills (Cohn, 1997, p. 271; Overy, 1982, p. 45). The

first MEFO bills were issued in late-1933, but the scheme, also used to pay contractors and state-financed public works, was not fully rolled out until the spring of 1934 (McDonough, 2019, p. 77; Hehn, 2005, p. 100). Combined with significant tax incentives for businesses, the national debt of Germany tripled while the profits of big business increased exponentially (ibid). With MEFO Bills as a pseudo-currency, the government was able to create “virtually unlimited amounts” of money (Borchert, 1988, p. 61). MEFO bills were utilised predominantly because of the legal 100 million Reichsmarks ceiling on the total amount of Reich treasury bills which could be discounted by the Reichsbank (Cohn, 1997, p. 271). The bills directly allowed the government access to more money than the 100 million Reichsmark limit, avoiding tax increases or publicly changing the legal ceiling on central bank discounting (ibid).

Since version 1.5, Schacht is heralded by *HoiIV* as the architect of the ‘MEFO Bills’, imagined in-game as a national spirit modifier (Dauth, 2018). A country can have several national spirit modifiers in operation at the same time, and they can be acquired, removed, or altered by completing national focuses (AkatsukiEmpire, 2020c). The ‘MEFO Bills’ modifier is active from the beginning of a campaign, granting the player a 25% construction speed boost on military, civilian, and industrial structures (AkatsukiEmpire, 2020a). Therefore, the player can complete the ‘Four Year Plan’ focus whilst the ‘MEFO Bills’ modifier is active, allowing construction speed bonuses to combine and reach a higher total increased speed. This is a strong systemic indicator that interprets MEFO Bills as useful for the economic and industrial development of the German Reich in preparation for war.

MEFO bills are described in-game simply as,

“promissory notes created by Hjalmar Schacht to enable the government to fund rearmament, acting through the balance sheet entity Metallurgische Forschungsgesellschaft to hide this rearmament from French and British eyes. These bills must be extended for six-month periods, or their recipients will have to be paid when they fall due” (Zauberelefant, 2020c).

This contextualising text on the secrecy and the central economic deceit behind the MEFO bills aligns with historical literature. According to evidence collated by the allied prosecuting staff for the Nurnberg military tribunal, MEFO was a “dummy organisation” that was given nominal capital from the Reichsbank to finance the German rearmament program (Office of United States Chief of Counsel for Prosecution of Axis Criminality, 1946, p. 743). Although MEFO bills ceased circulation on 1 April 1938, the amount of MEFO bills outstanding by the end of the Second World War totalled over 12 billion Reichsmarks (ibid). Major German industrial firms such as Siemens were forced to fund MEFO’s capital (Epstein, 2015, p. 100). This historical context reinforces *Holliv*’s perspective that MEFO bills were a clandestine economic policy implemented to help Germany rearm. The ‘MEFO Bill’ national spirit modifier digitally conveys German attempts to covertly rearm away from the prying eyes of the British and French governments, confirming popular history interpretations of German economic development primarily as opportunities to rearm the nation for conquest (Tooze, 2007, pp. 80-81). While MEFO Bills are a significant component of Germany’s economic policy and armament program, they are not a direct focus within the country’s NFT. Instead, MEFO Bills are depicted through a separate portion of the simulation which interacts with the focuses enacted by the player. This interaction between the MEFO Bills and the German Reich NFT produces significant expressions of partial and curated historical interpretation.

Through its textual and systemic representation, the German NFT interprets that economic and industrial planning was crucial in increasing the nation’s capacity to wage war. However, a final distinction must be made. The German NFT, as a complex digital game document, forms a unique structure by which the industrial and economic concerns of a nation are mapped out on a linear path. The NFT conforms to the interpretation that the Second World War was a planned conflict instigated by Germany. Through a campaign, the player makes major industrial and economic improvements through completing focuses which rely on historical understandings of why a centrally planned economy existed within the German Reich. This interpretation illustrates that economic and industrial superiority was a

vital ambition for the nation to be able to engage in a prolonged and successful war. This perspective characterises Germany as an expanding power, “looking forward to a future when it would be dominant in Europe” (Martel, 1987, p. 9). A primary significance of completing the ‘Four Year Plan’ focus is centred on the potential to enact future economic and industrial focuses which are rooted in the policies of the Four-Year Plan, such as rearmament and improving industrial self-sufficiency and capacity to prepare for war (Biesinger, 2006, p. 381). Critically, the developer-curators model the Four-Year Plan as a singular event with positive economic effects which do not persist across a campaign. However, the total structure of the economic branch illustrates the focus’ significance. Without enacting the ‘Four Year Plan’, the player cannot enact other economic and industrial focuses such as ‘Autarky’. These focuses represent cornerstone infrastructural policies under the umbrella of the Four-Year Plan.

Self-Sufficiency: The German Reich and Synthetic Autarky

Svennilson (1954, p. 52) argues that the interwar period is characterised by a self-sufficiency boom. Planning for war was inconceivable without accounting for resources (Markevich, 2008, p. 78). This was a key consideration of the design of *HolIV*; Kuiper argues that “Simply by showing the discrepancy of industry available to the different nations it becomes very clear which situation the Axis found themselves in, and why they ultimately lost the war” (Pennington, 2018b). This is a significant expression of the developer-curators programming and implementing specific historical arguments that the outbreak of war was influenced by the quantity of available industrial resources between nations, and the outcome of war was dictated through the economic and industrial deficiencies of Germany.

For Hitler, the concept of autarky was the only viable way in which the nation could resolve its economic and industrial disparities and be competitive against global empires (Fritz, 2018, p. 125). A definition of the term can be found in *HolIV*’s description for the ‘Autarky’ focus: “For Germany to be truly great, it must be self-

sufficient. We must make better use of our resources and become more efficient in our construction” (AkatsukiEmpire, 2020a). An autarkic society is self-sufficient in natural resources, raw materials, and is not reliant on international trade for resources. The concept of self-sufficiency is extremely significant in the economic history of the German Reich. The vision of an autarkic society was a vital planned outcome of the Four-Year Plan (Taylor, 2010, p. 54). In order to prepare for war, the nation needed to be self-sufficient in resources, reducing its raw materials imports (Epstein, 2015, p. 100). From his ascension to power, Hitler believed that a full autarkic Germany would be immune from the naval economic blockades which had been implemented during the First World War (Stackelberg, 1999, p. 121; Epstein, 2015, p. 100). Through the early 1930s, Germany was consistently hampered by shortages in raw materials such as crude oil, rubber, iron ore and coal (Buchan, 2006). Therefore, by adopting the economic policy of autarky, Hitler instructed the country to make itself independent of any foreign materials that could potentially be made by German chemical, mining, or machine industries (Biesinger, 2006, p. 381). Furthermore, Hitler sought to increase the nation’s production of synthetic materials, including rubber, and fuel (ibid). *HolIV* visually demonstrates the importance of self-sufficiency to national economy and industry by placing the ‘Autarky’ focus directly after the ‘Four Year Plan’ on the German Reich NFT.

The player is rewarded handsomely for completing the ‘Autarky’ national focus. Firstly, they are bestowed with a new national spirit titled ‘Autarky’, providing a 10% building speed bonus to military factories, civilian factories, and dockyards (AkatsukiEmpire, 2020a). This allows the player to increase the pace of their industrial and military output (ibid, 2020c). Furthermore, the player is given two 100% research bonuses for the Excavation technology inside the Industrial technology tree (ibid, 2020a). These in-game bonuses illustrate the game system’s interplay between the NFT and other mechanics within the simulation. However, the rewards also produce a curated interpretation of history which suggests that autarky was successfully implemented. In some respects, the quest for autarky did produce tangible success. Between 1936 and 1938, Germany increased production of aluminium by 70%, lignite by 23% and coal by 18% (Epstein, 2015, p. 100). Toose

(2007, p. 227) argues that the synthetic production of rubber produced a “truly dramatic technology step”. Towards the late 1930s, Germany was also able to achieve independence from most oil imports, retaining a domestic capacity of 5.4 million tonnes (ibid).

South-eastern Asia is a major geographical source of rubber; in 1960, 90% of the world’s supply of rubber came from the region (Phillips Jr., 1960, p. 322). Germany saw the production of synthetic rubber as crucial to their fortunes in a future conflict (Tooze, 2007, p. 443). Upon public announcement of the Four-Year Plan, nowhere in the world had the technology to produce high-quality synthetic rubber in industrial quantities (ibid, p. 227). However, the German conglomerate and pharmaceutical company IG Farben became an indispensable supplier of technology and developed Buna, a synthetic rubber alternative (Everts, 2013, p. 30). Since its formation in the 1920s, IG Farben had initially monopolised German dye and chemical production (Kaiser, 1980, pp. 70-71). In February 1933, the company contributed millions of Deutschmarks towards Hitler’s campaign for the March 1933 election (McDonough, 2019, p. 40). IG Farben specialised in Buna S production throughout the late 1930s (Klein, 1959, p. 45). From 1936, when IG Farben was producing no more than a few hundred tonnes of Buna S (Tooze, 2007, p. 227), the company were producing 70,000 tonnes by 1941 (De Guzman, 2008). In November 1940, IG Farben planned to expand its three existing Buna plants and to build a fourth facility in the newly acquired Polish territories, sufficiently far from the threat of British bombers (Tooze, 2007, p. 443). Similarly, in the United States during the early 1940s, production output of synthetic rubber stood at 8,000 tonnes; by 1944 the industry produced over 495,000 tonnes (Phillips Jr., 1960, p. 322).

In this context, advancements made in synthetic rubber production across the era are staggering. Joseph Borkin (1978, p. 1) argues that without IG Farben’s “immense productive facilities, its far-reaching research, varied technical expertise and overall concentration of economic power Germany would not have been in a position to start its aggressive war in September 1939”. *Holliv* also reflects that

synthetic rubber technologies thrived under the policy of autarky through the 'Synthetic Rubber' focus, which can only be accessed after completing the 'Autarky' and 'Coal Liquidization' focuses. The game's explicit systemic relationship between Germany's coal and synthetic industries is significant, lending credence to Tooze's (2007, p. 227) argument that "the burden of financing and building the first generation of synthetic fuel plants had been spread across the entire German energy industry, by conscripting the coal mines". By placing the 'Synthetic Rubber' focus behind two additional focuses, *HoIIV* offers the historical perspective that without the success of increased output of the coal industry, the development of synthetic rubber would have been significantly delayed or even impossible to achieve. The historical description for the 'Synthetic Rubber' focus also argues that synthetic production increases were vital for preparing the nation for military endeavours, "Large-scale motorization and aviation requires large amounts of rubber, of which we own no sources. We must improve the way we create it synthetically" (AkatsukiEmpire, 2020a). By enacting the focus, the player's output of rubber from each synthetic refinery building is increased by two (ibid). This is a demonstration that *HoIIV* advocates the historical perspective that the development of synthetic rubber through national autarky was a successful endeavour.

However, this positive reflection on the success of German economic policy is contested in the historiography of the period. Jack Snyder argues that Hitler's plan to become an autarkic nation saw limited results (Snyder, 1991, p. 73). By 1939, Germany had not significantly reduced its dependence on imported raw materials (Epstein, 2015, p. 100). Furthermore, the costs of autarky were prohibitive; it was more expensive to produce synthetic oil than to buy imported oil, and it was costlier to mine Germany's low-grade iron ore deposits than to buy superior Swedish iron (ibid). The process of creating industrial amounts of synthetic rubber also proved too difficult for the regime. IG Faben's synthetic refinery at Auschwitz did not produce any quantity of rubber (Tooze, 2007, p. 445). Instead, the factory utilised slave workers to produce methanol on an industrial scale (ibid; Everts, 2013, p. 30). The policy of autarky was also contested within government. The

national venture of autarky was a point of contention and divide within the Nazi regime; Schacht regularly clashed with the Agricultural Ministry over the level of foreign exchange that would be allocated to buy fuel for food production while maintaining the same high level of military rearmament (De Grand, 2004, p. 60).

HolIV's textual and systemic components produce contradictory perspectives on the effectiveness of pursuing autarky. Attempting to illustrate the success of German economic policy, the game's historical perspective of enacting an autarkic economy rewards the player with a significant increase in rubber (AkatsukiEmpire, 2020a). Furthermore, a comparison of the total resources available to the country at the start of a campaign from 1 January 1936 or 14 August 1939 illustrates the sharp increase in rubber production (SolSys, 2019a). The difference between the production levels of oil and rubber is significant, demonstrating how the nation increased industrial output to prepare for conflict. The nation's economic position in the NFT from the 14 August 1939 start date reaffirms this message. The 'Four Year Plan' and 'Autarky' have been completed. Furthermore, Germany has also completed the 'Coal Liquidization' and 'Synthetic Rubber' focuses. Therefore, in the minds of the developer-curators, the German Reich successfully transformed its industrial capacity and increased its output through autarky.

However, simultaneously, the in-game position of the German Reich in terms of available raw materials and resources contradicts this assessment. When the player begins a playthrough of the nation from the 1939 start date, a pop-up box appears and indicates that the country lacks specific assets: "Insufficient resources: Need: Rubber (6), Chromium (3)" (Paradox Development Studios, v. 1.4, 2017). This message – which always appears at the outset of a campaign – demonstrates that the nation was not truly self-sufficient in resources. Consequently, *HolIV* presents two competing historical perspectives on the success of the German economy. While industrial increases in the production of oil and rubber are shown to be significant, the game also argues that these efforts were still not at a volume substantial enough to fully sustain the German Reich from fighting a war on a global stage without the severe repercussions of decreased international trading.

Even though there is dispute on the overall success of autarky, by completing the 'Autarky' focus the NFT allows the player to research of a plethora of economic and industrial focuses associated with the policy that bestow computational benefits. For example, the 'Hermann Göring-Werke' focus is closely embedded within the concept of autarky. The focus description states, "we will form an industrial conglomerate under our control to oversee growth in the mining and steel sectors, as this will form the backbone of our military industry" (AkatsukiEmpire, 2020a). This text is historically astute; in September 1938, the regime established a large industrial conglomerate named Reichswerke Herman Göring to generate and extract coal and iron ore from mines in Salzgitter (Hayes, 2004, p. 74). The creation of a state-owned industrial powerhouse is rooted fully within German ideals of state-controlled planned industry (Stackelberg, 1999, p. 120). This view is encompassed by Kurt Lachmann (1941, p. 24), who argues:

"The History of the Hermann Goring works is one of the epics of industrial empire building. But it offers a new variation on the old theme, since not a rugged individualist but a modern tyrant has been its builder. Some may ask if it is not really a form of state socialism in action...It is a system in which extreme order and anarchy coexist, in which the powerful seize the fruits of the day and call it law, in which the rationalization of power and the irrationality of the powerful blend in a strange mixture."

Lachmann's consideration of the company is borne through its mass expansion into many differing areas of industry. The company extended its production to factories across Germany and occupied territories during the war. For example, a factory owned by Hermann Göring-Werke was erected near Linz in Austria to process iron and steel (Kirk, 2014, p. 11). Within *HoIV*, enacting the 'Hermann Göring-Werke' focus provides the player a distinct future military advantage: in three randomly chosen German states, two extra building slots are unlocked, and two civilian factories are automatically built (AkatsukiEmpire, 2020a). In terms of an overnight factory being erected and fully working within a day, *HoIV* operates within high fantasy, demonstrating the playful nature of the NFTs as a game mechanic and not a model of historical progression. In this instance, the balance of the game system

is prioritised by the developer-curators over attempts to convey historical authenticity. However, this systemic bonus for the player is an abstract historical mirroring of the company expanding its business across the 1930s. The tangible in-game benefits given to the player are explicit expressions of authentic-lite rhetoric created through text and computational processes.

The Self-Sufficient Soviet Union

The industrial efforts of the Soviet Union during the 1930s are understood in historical research as a drive for economic self-sufficiency in areas such as metals, machine tools, motors and chemicals (Dowd, 1955, p. 277). Military considerations are also centrally linked to Soviet Union policies of self-sufficiency. For example, the 'Move Industry to the Urals' focus immediately follows the 'Finish the Five Year Plan' on the Soviet Union NFT. The Urals region of Russia forms a traditional geographical frontier between Europe and Asia (Dukes, 2015, p. 1). The region has been described as "the gateway to Siberia, a country of low hills, vast forests, cold climate and huge distances" (Koutaissoff, 1951, p. 252). The vast mountain range known as the Urals, stretches north to south between Vorkuta and Perm (Dewdney, 1979, p. 6). The historical significance of the region lies in its rich iron and chromium deposits (ibid, p. 7). Heavy industry was already present in the Urals prior to 1936; metallurgy in the Urals was established by Peter the Great in order to support his campaign against Sweden (Harris, 1999, p. 2). According to one account:

"on the eve of the great Northern war against Sweden (Russia's supplier of high-grade iron and copper), military needs made an expansion of the metal and armament industries a matter of urgency...the great mineral wealth of what has since become the Industrial South lay unknown under virgin steppe-land...In 1697-9, on the personal orders of Peter the Great, local officials and craftsmen were made to prospect the rich outcrops of ores of the remote Urals." (Koutaissoff, 1951, p. 252).

Since the eighteenth century, the extraction and refining of minerals became a central role in the national economy, contributing to the historical formation of a 'mining-industrial culture' in Russia (Dukes, 2015, p. 1). The Ural metal industry saw a rapid expansion during the century (Koutaissoff, 1951, p. 253). However, by the end of the nineteenth century, while innovations in heavy industry across western Europe increased output significantly, the Urals stagnated (ibid, p. 254). The technological foundations of Russian metallurgy and industry were laid in the previous century, and new techniques created in the West "were adopted in the Urals slowly, if at all" (Esper, 1982, p. 583). *HolIV* reaffirms this historical claim that the Ural region was significant in the industrial history of the Soviet Union. Upon beginning a campaign in 1936, the Magnitogorsk and Zlatoust states, geographically located in the Urals, start with 60 and 32.2 units of steel respectively (Mister Analyst, 2019a).

However, in the early 1930s, the Soviet Union's Five-Year Plan transformed the region with a new iron and steel industry (Westwood, 1979, p. 89). This historical context is vital when understanding how the Soviet NFT projects authentic-lite rhetoric; without enacting the Five-Year Plan focus, the player cannot begin the process to transform the industrial capabilities of the region. Consequently, *HolIV* makes a systemic claim that Soviet industry rapidly accelerated in the Urals as a result of the Five-Year Plan. The nation's ability to wage war is at the centre of the 'Move Industry to the Urals' focus. The geographical location of new industrial plants was crucial, "secure from the threat of foreign invasion, the Soviet government decided to build the world's largest and most technologically advanced iron and steel plant" (Kotkin, 1991, p. xii). This interpretation remains connected to established historical records on changes to the region during the 1930s. When the Soviet Union's first Five-Year Plan was declared complete in 1932, no major targets had been reached or surpassed (Ward, 1993, p. 81). However, in remote regions of the nation, such as the Urals, mining, engineering and metallurgical enterprises were installed (ibid). The description for the 'Move Industry to the Urals' focus reads:

“The backstabbing Hitlerists must not be allowed to seize our precious factories in the western part of the USSR. With supreme effort and sacrifice, we should be able to quickly move the most valuable heavy equipment and facilities to Chelyabinsk and other locations in the Urals” (DeadHeat16, 2020a).

This description keenly reflects how the Urals was the target of high investment and industrial and construction targets in the second Five-Year Plan (Harris, 1999, p. 5). The Urals needed a massive program of capital investment in order to establish itself as a leading centre of heavy industry and mineral refining (ibid, p. 5). However, by referring to “backstabbing Hitlerists”, the description also understands the fundamental ideological tensions and antagonism between nations during the epoch. The description for the focus calls upon later historical discourse surrounding the creation, and subsequent dissolution, of the German and Soviet Molotov-Ribbentrop Pact signed on 24 August 1939 (McDonough, 2019, p. 382). The descriptive text for the focus is rhetorically situated after the disintegration of the ground-breaking political collaboration between the German Reich and the Soviet Union. The focus’ historical description underpins the developer-curators stance on the inevitability of the war (Goodfellow, 2016, p. 3). By modelling the process of moving heavy industry to the Urals, *HolIV* argues that the Soviet Union have accepted the inevitability of a coming war between the nations.

The systemic effects of enacting the ‘Move Industry to the Urals’ focus are scarcely beneficial for the player. Any improvement is slight and conducted in a convoluted fashion. In the Moscow, Leningrad and Smolensk areas of the map, a combined 11 military factories and 5 civilian factories are removed from existence (DeadHeat16, 2020a). These factories are relocated to the Magnitogorsk and Zlatoust nodes (ibid). There is no increase in the number of factories the player possesses by enacting the focus. This is a potent example of authentic-lite rhetoric. Through giving the player nothing by enacting the focus, game system expressively demonstrates that ‘moving’ industrial capacity to the remote region of the nation is not an economically beneficial undertaking. Instead, *HolIV* demonstrates that the focus is enacted for political reasons, allowing the nation’s rearmament process to

be conducted away from a potential frontline with Germany. This interpretation is also evident in historical accounts. The location of the Magnitogorsk Works, deep in the Soviet Union, made the plant almost impregnable to attack and served as a secure base for developing industry (Davies, 1989, p. 26). The steel and iron plant at Magnitogorsk was founded in 1929 (Kotkin, 1995, p. 37). The site became a popular symbol of the revolutionary remaking of society as promised by the October Revolution (Kotkin, 1991, p. xii). Magnitogorsk is a translation of Magnetic Mountain, and geographically consists of an outcrop of five hills which contain the richest and most accessible iron ore in the country (Kotkin, 1995, p. 1). By 1939, the steelworks was producing 10% of the nation's steel (Kotkin, 1991, p. xiv). During the post-war reconstruction era, the city of Magnitogorsk continued to be highly valuable for its steel production (Song, 2010, p. 663). The focus expresses that the movement of industry to the area was primarily undertaken to strengthen Soviet industry in the event of a conflict. Furthermore, this event also invokes the historical context of the mobilisation of heavy industry. The Soviet Union initiated an industrial assault on the region, turning a "bump in the earth" into a gigantic steel plan with a sprawling settlement of 200,000 people (Kotkin, 1995, p. 1). By conveying this massive industrial project through the Soviet Union NFT and allowing the player to relocate national industry to geographical locations surrounding the Urals, *HoIIV* produces an authentic-lite rhetoric which expresses how the concept of a self-sufficiency in heavy industry was crucial to the Soviet Union's industrial and military policies in preparation for a global conflict against Germany.

The United Kingdom and Resources of Empire

Within *HoIIV*'s simulation of history, the United Kingdom often represents a counterweight. As confirmed by the developer-curators, *HoIIV* gives the player ample opportunities to wage war with nations such as the German Reich and Soviet Union (Pennington, 2018b). Yet the United Kingdom's historical modelling in the game is set apart from the system's models of aggressive territorial expansion (podcat, 2016). While in alternative history scenarios, there is creative freedom for

the developer-curators to imagine a 'Fascist United Kingdom', expressing historical similarities between Britain and the Soviet Union and German Reich is made difficult through their diametrically opposed ideological and political positions. *Holliv's* partial and curated historical interpretations of the United Kingdom's economic and industrial history are crucial to the thesis as a comparative example of how the NFT displays the historical progression of a democratic nation through the epoch. By exploring the United Kingdom's NFT, the thesis can determine how the history of a democratic and liberal nation is textually and systemically represented.

In the 1930s, the United Kingdom "was the least self-sufficient nation among the large economies of the world" (Edgerton, 2020). According to economic historian Roger Middleton (2010, p. 418), across the early twentieth century, Britain was the world's most open civilian economy. David Edgerton (2020) reinforces this viewpoint:

"most of the nation's bacon and eggs came from continental Europe. Its wheat came from Canada, Argentina and Australia...80 per cent of London's fresh beef came from the River Plate in South America. Imports of cheese and other dairy products came from New Zealand".

This societal trend towards free trade had been an economical reality since the mid-nineteenth century. By 1860, as Chancellor of the Exchequer, William Gladstone had removed import duties on over 400 items (Cain, 1999, p. 1). The United Kingdom's imperial and economic policies were closely connected. During the 1880s and 1890s, the British practiced free trade imperialism by forcing dependant components of the Empire, such as parts of West Africa and India, to accept free trade policies (Cain and Hopkins, 1993). As tariffs and duties rose in continental Europe, British businesses supported imperial expansion into Africa and Asia preventing France and Germany from establishing protectionist regimes (Cain, 1999, p. 3; Overy, 2011, p. 494). By the 1920s, the United Kingdom was an open market to the industrial and military goods of the world, such as the petroleum products of the East Indies or Belgium steel (Edgerton, 2020). Britain possessed a

radical interconnectedness with the world through free trade, distinguishing the nation from any other major economy at that time (ibid). *Holliv's* system conveys this popular perspective of the United Kingdom's open economic policy. At the outset of the 1936 campaign, the nation's trade law is set to 'Export Focus' (AkatsukiEmpire, 2020). The nation's economy is also set as a 'Civilian Economy' (ibid). As a consequence, 50% of British resources are automatically designated for open trade between other nations, and 35% of the nation's factories must be designated as civilian factories that cannot produce military components (ibid). These system processes in place at the outset of a campaign reconfirm historical interpretations of Britain's economic position as an advocate of globalised free trade and exporting goods for a predominantly civilian populace (Campbell, 1929, p. 372).

However, British attitudes towards free trade markedly shifted within the late 1920s and 1930s. In 1929, political debates in the House of Lords stressed a trade policy shift towards a more significant amount of trade being conducted within the economic bloc of the British Empire (Aitken, 1929). During one exchange in the House of Lords, William Maxwell Aitken, also known as Lord Beaverbrook, states that:

"Britain takes from Australia more than any other nation of the Dominions' wool, meat, and wheat...The total exports of the Commonwealth amount to £142,000,000. Of that amount £108,000,000 represent agricultural produce, £10,000,000 gold and £4,000,000 lead, and the manufactured goods exported by the Commonwealth are practically negligible; so it would be right to say that the exports of Australia are primarily agricultural exports...At the present time the Australians buy £140,000,000 worth of manufactured goods. Of those £140,000,000 little more than half come from the Empire; £65,000,000 come from foreign countries. Why should not Great Britain share in that £65,000,000? I am bound to say it is my firm conviction that Great Britain could quite easily obtain in the Australian market, without any damage whatsoever to Australian industry" (ibid).

Lord Beaverbrook's argument, that the United Kingdom should share a closer economic and self-sufficient relationship with its colonies and Dominions has

historical precedents. In 1903, Joseph Chamberlain proposed the establishment of the Tariff Reform League, an economic bloc that would grant preferences to trade within the British Empire (Thackeray, 2006, p. 46). Reforms would consolidate the territories of the Empire through a concept of Imperial Preference, granting preferential trade tariffs which would be more favourable to the colonies and Dominions (ibid). The notion of the Tariff Reform League influenced political discourse in the late 1920s; debates turned to “the ideal of converting the British Empire into a single fiscal unit with a tariff against foreign imports, complete Free Trade within its borders” (Campbell, 1929, p. 371).

In 1929, proposals for the Empire Free Trade programme represented a radical development of Chamberlain’s earlier proposal (Edgerton, 2020). The programme was debated as:

“a movement which is to develop the resources, the industry and the commerce of all parts of the Empire...to make of the whole British Empire one economic unit...to make the financial resources of the Empire more fully available for the benefit of all parts of the Empire” (Aitken, 1929).

While the Free Empire Trade programme was not enacted by the British government, further political moves in the 1930s sought to tighten the bonds of Empire through economical means (Kaiser, 1980, p. 86). The Ottawa Imperial Conference, held between July and August 1932, attempted to establish a zone of limited tariffs within the British Empire; the conclusion of the conference saw an acceptance of Imperial Preference between the United Kingdom and its colonial territories and Dominions (Dobson, 1984, p. 143). The Ottawa agreements provide an explanation for an increase in the Empire’s share of British imports between 1930 and 1935 (de Bromhead et al, 2017). David Kaiser (1980, p. 86) argues that the reality of the conference was that Britain was “entering into commercial negotiations with several effectively independent countries, including Canada, South Africa, Australia, New Zealand, and, in many respects, India”. The United Kingdom government agreed to quotas for meat and bacon imports designed to reduce foreign imports by up to 30% (ibid, p. 87). This change in trade policy

adversely affected meat trade with Argentina, and new bacon quotas and tariffs on butter and eggs severely affected the economies of Poland and the Baltic and Scandinavian nations (ibid). Through the 1930s, the United Kingdom attempted to become economically and politically closer to the Empire, and the policy of Imperial Preference continued for short time after the Second World War through Clement Attlee's Labour government (Toye, 2003, p. 917). As a consequence, its economic relationship with other nations was significantly altered; Britain neglected Eastern European markets to instead stimulate domestic and empire production (Kaiser, 1980, p. 82).

In many aspects, the British Empire defines the United Kingdom's gameplay role within *HolIV*. From economic perspectives, imperial policy is central to how the game presents a curated interpretation of the United Kingdom's position on self-sufficiency. Critically, *HolIV* does not incorporate extensive economic models of liberal trade. The global trade game mechanic is utilised primarily for ensuring that a nation has enough resources for military production, such as steel and oil (Meneth, 2016). Therefore, the NFT of the United Kingdom is a rare in-game site which attempts to model the creation of self-sufficiency predominantly through progressive infrastructural and military improvements within British dominions and colonies. This model conforms to popular history arguments that the priority for Britain during the epoch was to protect the British Empire and preserve its economic stability (Overy, 2011, p. 494). In the forty-sixth developer diary for *HolIV*, the developer-curators state that "managing your empire takes up a large portion of the focus tree...further developing the commonwealth nations" (podcat, 2016). This perspective is crucial. While economic and industrial concerns are plotted through the United Kingdom NFT, individual focuses provide infrastructural and military changes to the economic and industrial output of the territories within the British Empire. Self-sufficiency, in the form of promoting and enacting Imperial Preference, was a primary concern within the United Kingdom's colonial policy, especially for conservative elements within the British establishment (Jackson, 2006, p. 29). From 1936, the nation pursued a policy of attempting to reconstruct its global defences across the Empire without wrecking its economy or sacrificing its

preeminent international economic position to the United States (Price, 2001, p. 30). However, crucially, there is no reference to Imperial Preference in the economic and industrial systems of *HoiV*, British economic policy is only reductively understood through the notion of an 'Export Focus' (AkatsukiEmpire, 2020).

Nevertheless, the 'Reinforce the Empire Branch' stands as the first segment of the United Kingdom's NFT that models British policy towards the empire. On HOI4 Wiki, the 'Reinforce the Empire Branch' is described as "centred around the industrial development of the colonies" (AkatsukiEmpire, 2019a). This description highlights the argument that the United Kingdom was heavily reliant upon the resources of the Empire during the epoch surrounding the Second World War (Marshall, 2006, p. 318). The 'Reinforce the Empire' focus is the first individual national focus that presents the player with the opportunity to improve the United Kingdom's in-game position through the historical imagery of empire (Figure 20). The description for the focus states that "Our Empire is vast, and despite our power, weakly defended. To combat this we need to encourage Imperial Patriotism throughout the realm" (AkatsukiEmpire, 2019a). This text reinforces the vital military bonds between Britain and its Empire. By completing the focus, the player is given a 10% boost to national 'Stability'. Although this change may seem nominal, it is symbolically significant. Higher percentage levels of stability ensure that factories and dockyards produce military and naval units 20% faster (Zauberelefant, 2020a). The British NFT in *HoiV*'s 1939 start date is also a demonstration of the developer-curator's historical curations concerning the strategic importance of Britain's relationship to its Empire. As illustrated in Figure 20, the 'Encourage Colonial Elite' and 'Commonwealth Ties' are completed focuses, presenting authentic-lite rhetoric that views the British position at the outbreak of the Second World War in close association to Empire reinforcement and consolidation. Through both system and text, *HoiV* reinforces the United Kingdom's military and economic strength through the British Empire, suggesting a closer bond between the nation and its colonies and Dominions is directly beneficial to the nation's military self-sufficiency.

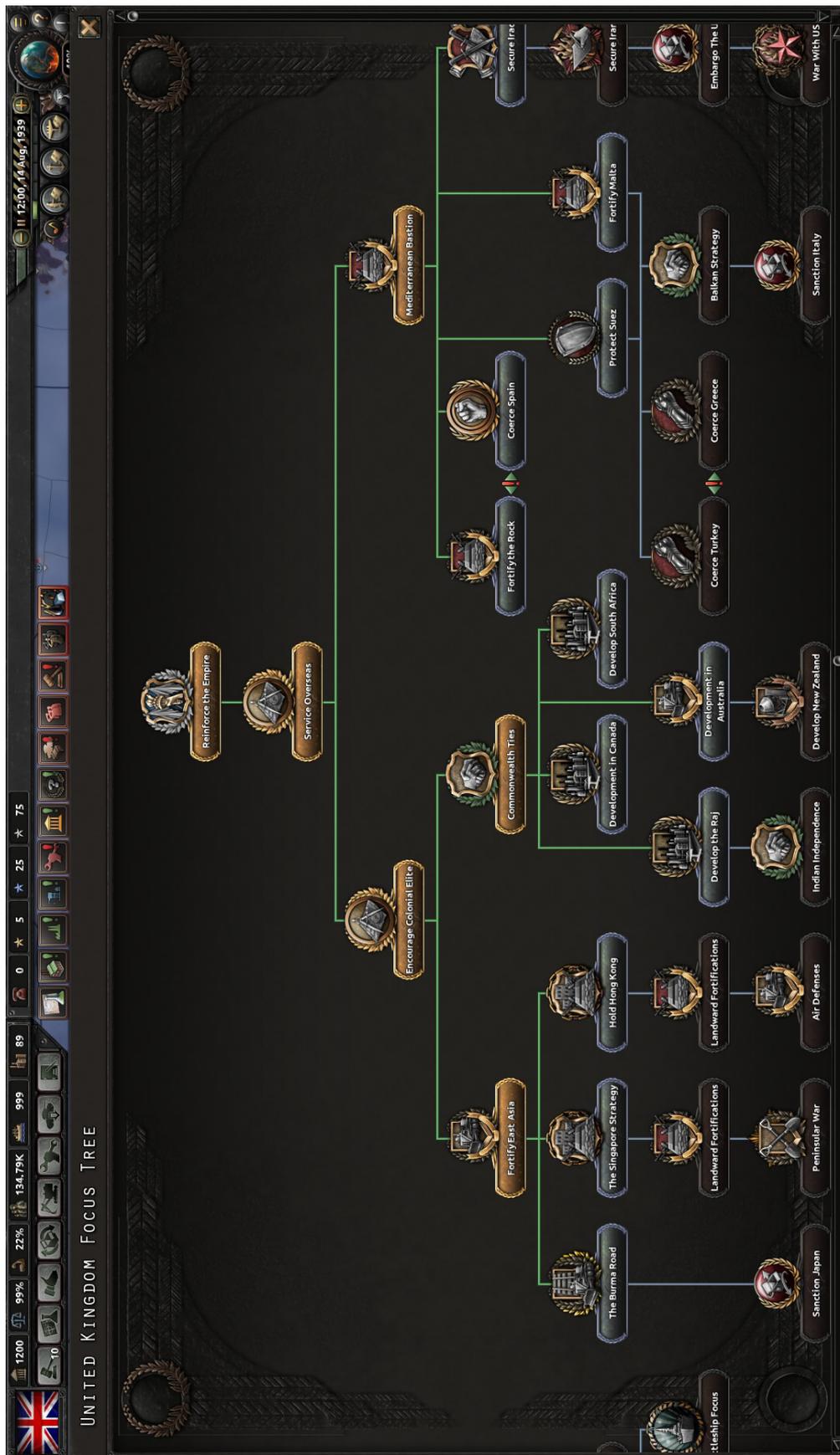


Figure 20: The 'Reinforce the Empire' branch of the United Kingdom NFT.

The 'Reinforce the Empire Branch' is displayed within HOI4 Wiki as only two focuses (AkatsukiEmpire, 2019a). Therefore, its significance to the structure of the NFT can be observed in how it allows access to multiple future focuses that change the in-game position of the United Kingdom. Significant expressions of authentic-lite rhetoric can be seen through the 'Encourage Colonial Elite Sub-branch' that follows the 'Reinforce the Empire' branch. This section of the United Kingdom NFT is characterised by focuses for "developing the Dominions" (ibid). The individual focuses upon this branch elucidate upon the interpretation that the nation's imperial considerations were also connected to policies of military and infrastructural self-sufficiency (Jackson, 2006). The first focus on this section of the NFT is useful to consider. The 'Encourage Colonial Elite' focus description states that "Our vast, sprawling empire houses some of the greatest minds in the world...By encouraging them to work together on our most important projects, we can achieve results faster" (ibid). The 'Encourage Colonial Elite Sub-branch' includes a number of individual focuses that model the industrial development of colonial and Dominion territory. Most notably these focuses are: 'Develop the Raj', 'Development in Canada', 'Development in Australia', 'Develop New Zealand', and 'Develop South Africa' (ibid). These individual focuses emphasise *HoIIV's* partial interpretation that by aiding the empire's industrial progression, the United Kingdom was attempting to forge a close community of countries that were militarily and infrastructurally self-sufficient. Systemically, the bonuses and rewards given to the player for completing these focuses reinforce the military and industrial potency of nations cooperating under the guise of the British Empire. The diplomatic and political relationship between British India and the United Kingdom was also significant to the economic ambition of self-sufficiency. Through the British NFT, completing the 'Develop the Raj' focus gives the player two civilian factories and two additional building slots within three random territories in the British Raj, the in-game name for India under British control (ibid). The 1938 Expert Committee on Indian Defence, also known as the Chatfield Committee, was set up to suggest measures for modernising India's armed forces and balancing local and imperial defence practicalities (Leake, 2014, p. 321). The Chatfield Committee recommended building up war industries in India to make the entire subcontinent

self-sufficient in preparation for a conflict (ibid, p. 322). Therefore, the 'Develop the Raj' focus presents an authentic-lite rhetoric that British self-sufficiency was not simply a policy for the British mainland, but intended for territories across the Empire, potentially creating a more cohesive bloc of industrially self-sufficient nations that would cooperate with each other.

The 'Develop South Africa' focus is also an interesting site for expressions of authentic-lite rhetoric. The description for the focus states that, "The political situation in South Africa is uncertain. We cannot fully trust that they will support our war effort, but by aiding them in strengthening their industry, we can hope to increase support for the British cause" (AkatsukiEmpire, 2019a). This text identifies the innate political instability within South Africa during this period. The Union of South Africa was formed in 1910 as a consequence of British victory in the Anglo-Boer War (Jackson, 2006, p. 238). From the new nation's formation, the Dutch-speaking community and Afrikaners resisted British encroachment and built a potent nationalist movement upon anti-British sentiment (ibid, p. 239). South Africa was a regional power of growing strategic and economical significance to the United Kingdom (ibid, p. 240). In the 1930s, South African participation in a coming war was considered strategically crucial by the British government as it sought to ensure that a united Commonwealth front was maintained (ibid, p. 239). The in-game rewards for completing the 'Develop South Africa' focus reflect an interpretation that the United Kingdom was attempting to ensure the military and industrial cooperation of South Africa, and, in turn, produce a more self-sufficient British Empire. In one random South African territory, two civilian factories and two building slots are immediately built, in two other random South African states, one civilian factory and building slot also appear (AkatsukiEmpire, 2019a). In one random coastal province, one building slot and one naval dockyard are created (ibid). This is a greatly substantial systemic depiction that portrays a successful British campaign for self-sufficiency. Popular history similarly conveys the successes of South African involvement within the Second World War. Jackson (2006, p. 239) argues that "given the level of opposition to the war effort from within the Afrikaner community...the extent of South Africa's war effort was remarkable". The

'Develop South Africa' focus demonstrates British support for its colonies and Dominions through systemic changes that increase the overall power of the British Empire as a related bloc of nations.

Critically, however, *HolIV* systemically privileges particular nations within the British Empire. This aspect of the simulation can be seen as a deliberate curation by the developer-curators to reflect a historical privileging of specific nations within the Empire by Britain. For example, the release of the *Together for Victory* expansion provides unique NFTs for "Canada, Australia, New Zealand, The Raj (India), and South Africa" (SolSys, 2019b). Consequently, the United Kingdom's territories in South America, South Asia, and East and West Africa, are excluded from *HolIV*'s subsequent historical changes to its portrayal of the British Empire. During a campaign, crucial strategic territories such as Egypt and Nigeria are also reductively categorised as sovereign British territory (Paradox Development Studios, v. 1.3, 2017). In a West African context, *HolIV*'s interpretation of historical territory erases the existence of both indigenous cultures and Britain's historical system of Protectorate states (Myers, 1998). This curation also produces a particularly ahistorical representation of Egypt as a wholly British-controlled territory. This erroneous interpretation of the nation's history ignores Egypt's nominal independence from Britain in 1922 (Haug, 2021), and the 1936 Anglo-Egyptian Treaty (Morsy, 1984). On the United Kingdom's NFT, in comparison to the 'Develop South Africa' focus, there are no individual focuses that model an explicit development of the nation's West or East African territories and colonies. This curation ignores the historical legacy of the United Kingdom in West Africa and its control over the region's industrial raw materials (Myers, 1998, p. 1). Therefore, through its curation of history, *HolIV* privileges the history of specific nations within the British Empire, such as Australia, Canada, and South Africa, producing a particular view on both the contemporary and historical significance of certain nations within wider understandings of their participation in the Second World War. The histories of other nations within the British Empire are wholly discarded within this curated interpretation to produce a reductive interpretation of the past.

By illustrating extensive infrastructural development of a specific and curated list of British Empire territories, the United Kingdom NFT reflects the nation's intended progression towards forging a unique bloc of nations. This is a distinct system of self-sufficiency within a democratic system that is markedly different to the German Reich's and Soviet Union's policies of social coercion and self-sufficiency of raw materials and resources. By viewing British self-sufficiency within this systemic context, the developer-curators produce unique expressions of authentic-lite rhetoric that differentiate the global goals and ambitions of the democratic United Kingdom and British Empire from the totalitarian governance of the German Reich and Soviet Union.

Rearmament in the NFTs: German Rearmament

Germany conducted a radical economic agenda of rapid acceleration of rearmament between 1933 and 1939 (Deist, 1981, p. v; Kaiser, 1992, p. 181). Within popular history, rearmament is regarded as the main explanation for Germany's economic recovery across the decade (Stern, 1984; Snyder, 1995). The nation would have suffered economic collapse without its economic and industrial reliance on producing armaments for war (Dowd, 1955, p. 279). Within the German Reich NFT, focuses on the 'Four Year Plan Branch' give sparse reference to rearmament. However, the references that are included intrinsically link German economic and industrial planning to rearmament. The historical description for the 'Four Year Plan' focus emphasises that the plan is explicitly needed for "the rearmament and self-sufficiency of the nation" (AkatsukiEmpire, 2020a). This text speaks to Tooze's (2007) persuasive overall interpretation of German economic strategy during the 1930s that emphasises both rearmament and self-sufficiency as core pillars of policy. Individual system effects of the 'Autarky' focus also project the centrality of rearmament. This can be seen clearly in the 10% increase in the construction speed of military factories given to the player upon the focus's completion (AkatsukiEmpire, 2020a). By proceeding through a campaign with this focus active, the player conforms to *HolIV*'s curated historical argument that

economic and industrial self-sufficiency gave the nation more opportunities to rearm the nation rapidly.

The 'German War Economy' focus on the 'Four Year Plan Branch' (AkatsukiEmpire, 2020a) propels the developer-curators historical perspective that rearmament was crucial to the nation's economic health. The description for the focus reads, "Our great nation's people must be harnessed for the good of the war effort. We will transition to a full war economy, where every man is expected to play their part" (AkatsukiEmpire, 2020a). This is an interesting description that ahistorically excludes the important role that women had in preparing German economy and industry for war. Jill Stephenson (1982, p. 243) argues convincingly that volunteer workers from the Women's Labor Service were burdened with making a significant contribution to the national war effort. Women and girls within the Women's Labor Service would "be treated virtually as a general factotum in wartime – farm work here, clerical work there; munitions work here, antiaircraft work there" (ibid, p. 244). Women in Germany were crucial to the nation's rearmament effort. Yet, the historical description of this focus ignores the crucial historical role of women, and instead only focuses on men. This produces an inauthentic interpretation of the epoch as extremely male-dominated, and almost exclusively male.

The 'German War Economy' focus also systemically conveys the rearmament ambitions of the nation's economy and industry in preparation for a war against European powers. The systemic prerequisites for the focus, targets that need to be reached by the player before a focus can be accessed, produce partial interpretations. In order to access the focus, the player must have more than 49% 'War Support', a figure representing "the willingness of the population to endure the privations of war" (Zauberelefant, 2020a). If the player's war support is above 50%, they are given a 30% increase in the mobilization speed of their armies (ibid). This allows the player to position and prepare their units more quickly. As a prerequisite for the focus, the war support statistic produces an interpretation that expresses significant popular support for Germany to engage in war. However, this is a curated interpretation inside *HoiV* that goes against popular historical

narratives which argue that German propaganda failed to develop popular support for war and did little to successfully construct a popular consensus (Somerville, 2012, p. 134). In contrast, there remained a popular opposition to war, despite strong German propaganda initiatives that attempted to convince the nation that war had been forced on the population (Kallis, 2008, p. 72; Kershaw, 1983, p. 186). Therefore, the 'War Support' prerequisite produces a highly partial reflection of authentic-lite rhetoric that is curated towards *HolIV*'s overarching concept of an inevitable war during the epoch. The developer-curators forgo the historical record, instead presenting an ahistorical interpretation of an overwhelmingly popular predilection towards an aggressive expansionist war. This is a deliberate decision taken as a consequence of *HolIV* existing primarily as an entertainment product: the game's NFTs are curated to progress on a systemic and linear path that is always hurtling towards a global conflict.

The rewards for the 'German War Economy' focus reflect *HolIV*'s interpretation of a wholesale expansion of the national economy towards rearmament and war. Firstly, upon completing the focus, Germany's economy is converted to a 'War Economy' which gives the player a 20% increase in military factory construction speed (AkatsukiEmpire, 2020a; Dauth, 2019b). As a war economy, the nation can convert civilian factories into military factories 20% faster (ibid). This reward significantly demonstrates the developer-curator's historical interpretation that rearmament was a definitive ambition of Germany during the 1930s. The NFT presents the notion that, as the epoch progressed, the German Reich's economy moved starkly towards preparing for an imminent war. Adding to the systemic rewards, completing the 'German War Economy' focus immediately gives the player two additional building slots and two military factories within three random states (AkatsukiEmpire, 2020a). This is a significant systemic expression of authentic-lite rhetoric concerning how war was an inevitable conflict. As it approaches 1939, *HolIV* understands the German economy and industry as being co-opted towards a total war machine.

This view is contested in historical literature. In contrast to accounts which argue that rearmament had begun in the early 1930s, Taylor (1991, p. 18) proposes the view that German rearmament was not undertaken until the spring of 1936. However, according to Overy's (1995, p. 197) more balanced assessment, German programmes of rearmament were partly operational before 1936, and by 1938, rearmament was fully operational. Consequently, Germany is viewed within popular history as being militarily unprepared for a global conflict. By September 1939, the country possessed no operational heavy bomber plane (ibid). Within the army and navy, the nation held five battleships, fifty submarines and three hundred of the most up-to-date Mark IV tanks (ibid). *HoIIV* systemically produces a similar interpretation through its depiction of Germany's military units at the outset of a campaign. From the game's initial 2016 release, on the 14 August 1939 start date, these figures are considerably different to Overy's account. The nation possesses over fifty-eight active submarines, four battleships, and over a thousand tactical bomber planes (SolSys, 2019a). Furthermore, the nation possesses eleven light tank divisions and no strategic bomber units (ibid).

It would be simple to suggest that these figures are simply historically inaccurate. These figures could be seen in the context of digital game design. In order to balance the game effectively, and make the entertainment product of *HoIIV* challenging and fun for players, the developer-curators need to ensure that all aspects of the system do not make one nation substantially more powerful than any other. Instead, the developer-curators set a level playing field, with *HoIIV* simply acting as an entertaining strategy template that uses the Second World War for textual and visual imagery. Yet, by comparing the German Reich's military units from the 1936 start date, there is a clear expression of authentic-lite rhetoric that calls to the notion that rearmament was significantly accelerated between 1936 and 1939. According to HOI4 Wiki, from 1 January 1936 start date, the German Reich possesses three light tanks, fourteen submarines, and four hundred and eighty tactical bombers (SolSys, 2019a). There is a significant increase in the number of German military units between the two campaign start dates, effectively demonstrating through systemic means authentic-lite rhetoric that views a

definitive increase in rearmament across the epoch. *HoIIV* reflects a significant curated and partial view that the nation's military resources definitely increased in preparation for war. This in-game increase expresses a partial understanding that Germany's rearmaments programme was exceptionally effective.

The United Kingdom NFT's Alternative Expressions of Rearmament

In the NFTs, *HoIIV* positions the United Kingdom at a distinct disadvantage to the German Reich and Soviet Union. Writing contemporarily to the decade, Ivor Jennings (1938, p. 481) argues that "democracies act less quickly than dictatorships and are therefore at a disadvantage in a troubled world". This view has been maintained in accepted historical narratives. Providing a similar argument with empirical data, Elizabeth Leake (2014, p. 315) states that the British military were deficient in comparison to other European powers. In particular the British Army suffered neglect within the rearmament process; in 1934, policy makers allocated only £6.9 million in rearmament spending to the Army, while £20.9 million was given to the Royal Navy (*ibid*).

The authentic-lite rhetoric of the United Kingdom's NFT expresses this broad perspective of a nation catching-up to the military might of other nations. In the developer diary outlining *HoIIV*'s conception of the United Kingdom, the developer-curators argue that the rearmament portion of the NFT "focuses on getting ready for and fighting another war" (podcat, 2016). This simple description alludes to a partial interpretation of Britain's unique position against the aggressive and expansionist policies of the German Reich. While the German Reich and Soviet Union NFTs feature extensive industrial branches that reflect their gigantic industrialisation and centralised planning efforts during the 1930s, the United Kingdom's industrial and armament capacity is less evident. In part, this obfuscation is a consequence of the thesis's own timeframe constraints between examining *HoIIV* from its original 2016 state and the release of version 1.5 in 2018. As of version 1.9 of *HoIIV*, United Kingdom's NFT is divided up into five main branches

and six distinct sub-branches (AkatsukiEmpire, 2020). However, the nation's NFT has seen multiple changes from its original release. Most notably, the *Man the Guns* expansion (Steam, 2019a), also known as version 1.6, gives the nation two additional branches, one sub-branch and seven extra focuses (ibid). Future historical research into *HoIIV* could actively explore the curated interpretations present in the United Kingdom's NFT after version 1.5. In particular, an assessment of the economical and industrial history of the nation could be undertaken through the 'Global Defense Sub-branch', *HoIIV*'s historic model of "on placing Winston Churchill into power...ending appeasement...and mobilizing the country for war" (ibid). The rhetoric of this historical description within HOI4 Wiki calls to popular narratives about the United Kingdom's and collective security, disarmament and rearmament, and appeasement (Holman, 2011, p. 289).

The 'Cryptologic Bomb/Limited Rearmament Branch' is *HoIIV*'s central economic and industrial branch for the United Kingdom which "gives technology research bonuses, factories and an extra research slot" (AkatsukiEmpire, 2020). This industry branch is split into two sections. The first section models the development of cryptology through a sequence of focuses concerning British wartime codebreakers at Bletchley Park (Hinsley and Stripp, 1994), an organisation which Martin Sugarman (2005, p. 197) argues "contributed most to the defeat of the Axis forces between 1939 and 1945". This aspect of the branch is reflective of the contemporary twenty-first century state of popular history on the crucial role of Bletchley Park and Alan Turing (Gannon, 2020; Hodges, 2014; McMenemy, 2018), who was introduced into *HoIIV* as a potential government advisor with the *La Résistance* expansion (Paradox Development Studios, v. 1.9, 2020). Yet, the second portion of the branch beginning with the 'Limited Rearmament' focus, represents a more significant site for exploring the game's partial and curated representations of the economic and industrial history of the United Kingdom through rearmament (Figure 21). The description for the focus states,

"The recent stirrings from Germany and other Fascist powers around the world suggest that we may not enjoy peace in our time. In preparation, we

should begin to set the pieces in motion for our own rearmament if the situation gets any worse” (AkutsukiEmpire, 2020).

In the statement, “we may not enjoy peace in our time”, the description utilises the rhetoric of “I believe it is peace for our time” as spoken by Chamberlain in the aftermath of the 1938 Munich Conference (Faber, 2009, p. 7). The description also positions the British at a military and industrial disadvantage against the German Reich, who are understood to be significantly rearming. This description argues that Britain did not begin rearming before 1936 “because it did not want to rearm and did not think it necessary to rearm” until it was clear that other nations were rearming at a rapid pace (Jennings, 1938, p. 482). In this context, the game presents an ahistorical interpretation of rearmament from a British perspective. Critically, *HoIV* excludes any mention or reference to the economist John Maynard Keynes and his arguments for more careful financial planning for the war effort through substantially higher taxes and without relying on debt financing (Cooley and Ohanian, 1997, p. 440). Keynes’s proposals were adopted as the Second World War developed, and these policies distinctly characterised the nation’s approach to financing the war and rearmament (ibid). Instead, the phenomenon of rearmament is coloured by the game’s text as a defensive strategy against an aggressive German rearmament programme, expressing a unique and ahistorical authentic-lite rhetoric that excludes significant figures in British economic policy.

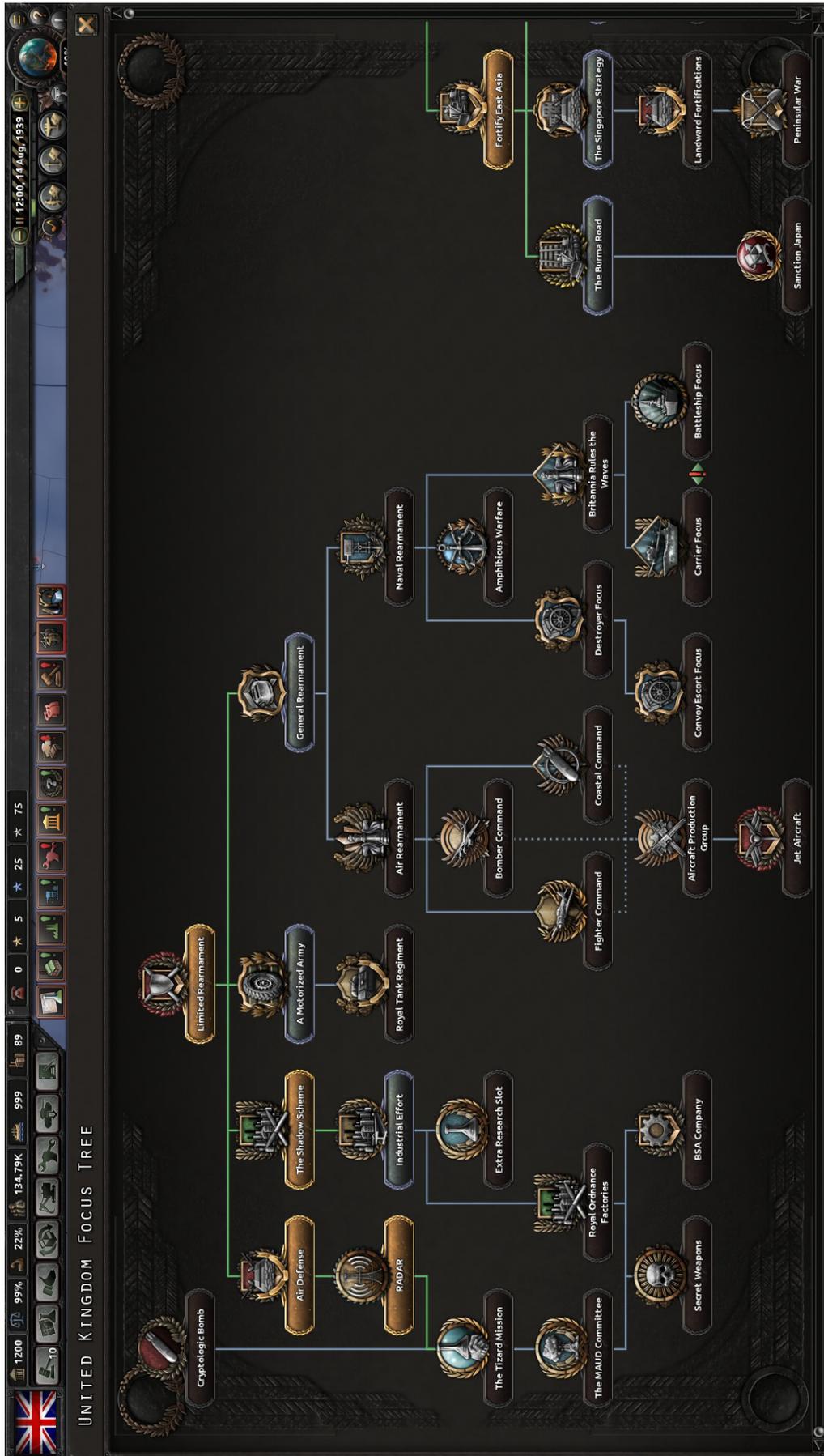


Figure 21: Economic and Industrial section of the United Kingdom NFT.

The description for 'Limited Rearmament' focus highlights popular British concern surrounding news of German rearmament. This concern can be seen clearly when discussing national debates surrounding the nation's aerial warfare capabilities in the 1930s. Substantial collections of historical research have explored the influence of airpower policy on politicians and discussed public battles over funding between different branches of the armed forces (Bialer, 1980; Smith, 1984; Biddle, 2002). Public concern in Britain had been mounting as a result of the lack of progress made at the World Disarmament Conference in Geneva since 1932 (Holman, 2011, p. 294). In October 1934, Germany withdrew from the talks, marking a distinctive shift in how the British government conceived defence spending (ibid; Kitching, 1999, pp. 136-173). As a part of this change in spending, improvements were planned for the British air force. In terms of numerical air strength, Britain was lagging behind other European nations; in 1933, the Royal Air Force consisted of 13 squadrons of fighters and 12 of bombers (James, 1990, p. 249). In order to rectify this disparity, the British prime minister Stanley Baldwin (1934) announced plans for the expansion of the RAF in July 1934:

“There has been a general tendency in recent years to increase air armaments throughout the world, and there is a general trend towards the adoption of a definite air strategy...That is reflected in the increase in the percentage of the bomber and fighter units in foreign air forces, intensified by the fact that in some countries, as in France and Italy, where no great increases are proposed, extensive re-equipment programmes have been or are to be undertaken. In the United Kingdom our actual increase of strength in the last four years has been trifling—42 machines—and the new programme will raise the number of machines from 844 to 1,304 if the programme as I retailed it to the House is carried out in its integrity”.

This passage illustrates how the British government were becoming increasingly aware of mass rearmament programmes commencing across the European continent. Throughout the National Government's existence between 1931 and 1940, nations across the globe were conducting geopolitical policies which threatened British interests. In September 1931, Japan invaded Chinese Manchuria, endangering Britain's predominant position in China, and ultimately all of East and

South Asia (Narizny, 2003, p. 210). Italy undertook a major naval and air arms production programme, challenging Britain's Mediterranean fleet and line of supply through the Suez Canal (ibid). On 9 March 1935 the German Reich announced the existence of the Luftwaffe and resumed conscription for the air force a week later (Holman, 2011, p. 297). In October 1935, Italy invaded Ethiopia, threatening British supremacy in Africa (Narizny, 2003, p. 210). It was clear that totalitarian nations in Europe were intent on rapidly mobilizing and rearming their armed forces. In response, from 1934, the British began a rearmament process, spending £9.4 million within the Royal Air Force (Leake, 2014, p. 315).

Baldwin's (1934) speech can also be used to illustrate the partial expressions of authentic-lite rhetoric from the game system of *HolIV*; as Baldwin states, the new programme for aerial rearmament was set to produce 1304 airplanes by 1939. From the 1936 campaign start date, the United Kingdom begins with a total of 1377 airplanes (AkatsukiEmpire, 2020). This is a staggering overestimation of British aerial superiority by the developer-curators, emitting an authentic-lite rhetoric that the United Kingdom always possessed a significant air force. This view excludes the historical narrative that illustrates how the British needed to significantly develop and increase their air force capacity during the decade. Instead, through the computation of giving the United Kingdom a large and superior air force, the game promotes a distinctly mass popular image of the undefeated Royal Air Force and the Battle of Britain. *HolIV* infers that "the great aerial clash over Britain" (Holland, 2010, p. 29) characterises the nation's aerial history during the Second World War. By amassing an already large air force in-game, *HolIV* reconfirms a popular perspective that the Royal Air Force was renown throughout the world as the "best flying club in the world" (ibid, p. 38). Through the later 'Air Rearmament' focus, the game textually reaffirms this message, stating prophetically that "In any war a continental enemy, the Royal Air Force will prove the key to victory" (AkatsukiEmpire, 2019a).

The computational system effects of the 'Limited Rearmament' focus are beneficial to the player, but they are not transformative. Upon completion of the focus, the

game system -immediately adds two building slots and two civilian factories to two random states controlled by the country (AkatsukiEmpire, 2020). The authentic-lite rhetoric of the focus suggests that initial attempts to rearm the United Kingdom from 1936 were moderate in scope. The relatively small increase in the factories available to the player through the focus magnifies broader financial issues impeding full-scale rearmament within the United Kingdom. Conservative elements within the British government were unwilling to expand government control over the economy, arguing that if the nation rearmed too quickly, it would face inflation and ruinous trade deficits (Cain and Hopkins, 1993, pp. 93-99; Newton, 1996, pp. 66-73 and pp. 116-117). The government initially refused to address these concerns through active policy, such as implementing controls on foreign exchange, consumption, or increasing tax (Narinzy, 2003, p. 210). They also refused to interfere in the private sector and increase its regulatory capacity, producing bottlenecks in the early production of armaments (Parker, 1981; Rollings, 2001). Narinzy (2003, p. 211) argues that “Having decided against both rapid rearmament and a stronger continental commitment, their only remaining option was appeasement”. This is an overriding message conveyed through the focus; the British government chose not to initially rearm to the colossal extent of the German Reich because they were pursuing a specific foreign policy of appeasing Hitler’s political and diplomatic expansion across central Europe. In this context, as previously argued, *HolIV*’s exclusion of Keynesian economic policy is a crucial misstep in offering an authentic simulation of national debate between rearmament and economic approaches to an impending conflict against the German Reich.

HolIV’s systemic expressions of authentic-lite rhetoric are contested within the historiography. Britain’s rearmament program in the 1930s was “the largest, most expensive program of any kind ever undertaken by a British government in time of peace” (Shay, 1977, p. 3). Similarly, according to *The Economist*’s 22 April 1939 edition, “Britain’s rearmament program is the greatest public works program ever devised in time of formal peace” (Richardson, 1967, p. 231). Therefore, if the ‘Limited Rearmament’ focus was an isolated event on the United Kingdom NFT that

was the only model of the nation's rearmament, this would represent a dissonant reflection of British economic history during the decade. However, by completing this focus, the player is able to access multiple focuses that also increase the industrial capacity of Britain in preparation for a war. The game system and its textual detail reinforce the perspective that the national economy and industry needed to be mobilised towards the war effort. For instance, by progressing past the 'Limited Rearmament' focus the player can enact the 'Industrial Effort' focus (AkatsukiEmpire, 2019a). Through the completion of this focus, the game system awards the player with two 100% research bonuses for the industrial technology tree (ibid). This is a significant boost to research technologies quicker than other nations and reaffirms *Holliv*'s expressions of authentic-lite rhetoric that suggest that British rearmament progressed rapidly through the late-1930s. The British transformation of rearmament is also significantly encapsulated by the 'General Rearmament' focus (ibid). The historical description for the focus determines that a conflict was considered an inevitability by the British state: "It is starting to look like another Great War is inevitable. If it isn't Hitler, it will be the Mikado, or even the Soviets..." (ibid). *Holliv* makes the plain textual argument that the Second World War was inevitable. This is a significant illustration of the game's entire curated interpretation of the epoch. Furthermore, the rhetoric of this text effectively conveys historical arguments concerning the push for a more comprehensive programme of rearmament, a policy advocated by senior members of the British civil service, such as Sir Warren Fisher (Peden, 1979, p. 32). This historical context echoes concerns within the focus's description that a future conflict could be against a combined force of different nations across the world. Within the British civil service, the Soviet Union, German Reich, and Japanese Empire were considered as the primary dangers to national defence (ibid, pp. 32-33).

The system effects of completing the 'General Rearmament' focus are also a significant conveyer of authentic-lite rhetoric that emphasises the effectiveness of late-stage British rearmament and signal a coming European war. Enacting the focus allows further access to linked focuses that are specifically targeted at military rearmament. For instance, the focuses 'Air Rearmament' and 'Naval

Rearmament' are made immediately available to the player (AkatsukiEmpire, 2019a). These focuses, when completed, also make tangible systemic improvements to the British air force and navy. By enacting the 'Air Rearmament' focus, the player is given ten 'Air Base' building units across five random British states within mainland United Kingdom (ibid). Similar benefits are bestowed to the player upon completing 'Navel Rearmament'; one additional building slot and one naval dockyard immediately appears in three random coastal British states. These two focuses encapsulate the curated historical interpretations of the game system; rearmament accelerated in pace as the 1930s progressed and was highly effective in improving the military position of the United Kingdom.

The 'General Rearmament' focus, predominantly through its opening to a plethora of alternative focuses that decisively improve the economical, industrial and military aspects of the United Kingdom, conveys the accelerated and progressive trends in British rearmament. As the decade progressed, the British were able to mount a colossal programme of national rearmament. This systemic expression is also conveyed within historiography on rearmament. British rearmament delivered a powerful economic stimulus in the late 1930s (Robertson, 1983, p. 280). In 1930, defence expenditure as a percentage of government expenditure stood at 13%; by 1937, this figure doubled to 26% (Shay, 1977, p. 297). The pace of rearmament was intensified in Britain with the Defence White Paper of February 1937 (British Parliamentary Papers, 1937, Cmd. 5374), which stated "it would be imprudent to contemplate total expenditure of less than £1500 million over the next five years" (Crafts and Mills, 2013, p. 1084). When evaluating the efficiency of the British state structure in state programming, Jennings (1938, p. 481) argues that "there is no constitutional structure which works with such speed". By 1939, Britain was out-producing Germany in tanks and aircraft (Overy, 1996, p. 12). In *HolIV*, both the NFT's computational system and its textual descriptions present a partial and curated interpretation of British rearmament efforts that reemphasise popular historical narratives concerning the substantial changes within the British economy and industry in preparation for war against Germany in the late 1930s.

Conclusion

This chapter has explored how the NFTs of the German Reich, Soviet Union, and United Kingdom represent diverse historical interpretations of economic and industrial phenomenon associated to the origins of the Second World War. Each NFT contains focuses that reinforce how the NFTs operate both as ‘engines of causality’ and ‘engines of industry’ which link historical events associated to economic and industrial policy. The NFTs also illustrate how *HolIV* presents a curated image of the period that argues for the inevitability of a global conflict. Consequently, almost all the economic and industrial focuses on the NFTs serve to improve the nation’s economic and industrial capability specifically in preparation for a coming war. Across these economic and industrial representations of the epoch, the game system and simulation always takes precedent over any historical interpretation. This is a crucial component of authentic-lite rhetoric. While *HolIV* makes allusions to being an authentic historical simulation, the necessities of providing the player a balanced computational system which is deliberately designed as a digital game is often a more significant consideration for developer-curators.

The thesis finds definite tensions between game design practicalities and authentic historical representations of economic and industrial history. The Soviet Union NFT remains an unchanging structure in a game which has significantly evolved over time and illustrates these tensions starkly. For instance, there is no reference to the Gosplan in the entire game. Consequently, a key facet of Soviet economic and industrial planning is simply ignored by the simulation because it cannot fit into how the simulations range of game’s mechanics conceive of history. The NFT’s representation of the Soviet Union’s Five-Year Plan is highly curated. System processes associated to completing the ‘Finish the Five Year Plan’ focus illustrate a moderate degree of industrial expansion (DeadHeat16, 2020a). Furthermore, the focus’s position at the top of the Soviet Union NFT suggests that the developer-curators understand central planning as the most significant economic policy that allowed the nation to subsequently prepare for conflict. However, in the Soviet

Union NFT there is no consideration of the disastrous societal consequences for the nation's policies of enforced collectivisation, mass industrialisation, and enforced economic quotas.

In contrast, *HoIIV*'s expressions of economic planning within the German Reich are more extensive. The 'Four Year Plan' focus leads the economic modelling of the nation's NFT, but the broader systems of *HoIIV* – such as the game's conception of MEFO bills – interact more persuasively with the NFT. The game systemically presents German economic planning as immediately effective, allowing the player to quickly research new military and industrial technologies. However, this aspect of the simulation is contested in popular scholarship, which argues that German attempts to plan the economy yielded minimal success. In this context, *HoIIV* presents an ahistorical perspective of authentic-lite rhetoric that favours the pragmatism of the NFT as an innate structure of progression within the game system, rather than an authentic conception of historical progression during the 1930s.

Through the NFTs economic and industrial focuses, *HoIIV* consistently produces narratives that are contested in historiography. This argument is also apparent in the game's depiction of autarky and self-sufficiency in industrial materials. The player is rewarded significantly by completing the 'Autarky' focus on the German NFT, providing new opportunities to develop synthetic oil. However, as scholarship suggests, the success of self-sufficiency within the boundaries of the Four-Year Plan was limited. The NFTs of the German Reich reflect the ahistoric potential for developing synthetic technologies, rather than demonstrating a more historically authentic depiction of an industrial endeavour that was limited by prevailing technology. The Soviet Union's NFT, as demonstrated by the 'Move Industry to the Urals' focus, reflects *HoIIV*'s most overt arguments of historical determinism. By completing this focus, the player successfully and immediately allocates factory buildings between different geographical locations with little negative impact on performing this change. While the game conveys this mass movement of industry as a straightforward change, this portrayal of history excludes the programmes'

severe societal and industrial difficulties. In contrast, the United Kingdom NFT, as a model of economical and industrial progression within a democracy, provides alternative expressions of authentic-lite rhetoric to the authoritarian German Reich and Soviet Union. *Holliv*'s abstraction of history effectively removes economy models of currency and globalised trade. Therefore, in its portrayal of self-sufficiency, the British NFT disseminates a highly curated view that the nation attempted to nurture a self-sufficient economic network of raw materials and resources within the British Empire. The focuses on the NFT assert the claim that Britain sought to reinforce and reassert their control over their colonial and Dominion territories through economic and industrial development and cooperation.

The NFT's reflection of rearmament remains close to popular narratives that emphasise the potency and pace of Germany, whilst denigrating the slow bureaucracy associated to the United Kingdom. Expressions of authentic-lite rhetoric within the starting military units for the German Reich and United Kingdom illustrate the pre-eminence of game system balancing over an authentic portrayal of the past. However, the ideological contrast between the nations over rearmament is highly significant. The systemic rewards for completing the 'German War Economy' focus significantly increase the speed at which the player can create a national industry which is solely catered for waging war. In contrast, the United Kingdom's NFT is specifically constructed through ideological conceptions of democracy during the epoch. The nation can only unlock focuses that speed up its rearmament process during the later stages of a campaign. This is a potent declaration by the developer-curators that understands the ideological position of democratic Britain as a significant detriment to its ability to conduct war against the authoritarian and urgent German Reich.

Chapter 7: The NFTs as Engines of Ideology

The period between 1919 and 1945 has been popularised as an “Age of Catastrophe” within a wider “Age of Extremes” (Hobsbawm, 1995, p. 7). It is regarded as a unique political era where three global ideologies competed for political and economic power, ultimately causing global destruction (Thompson, 2011, p. 1). Democracy, fascism, and communism were three bastions of political power that were embraced across the world’s most powerful nations. The nations at the centre of this thesis historically represent these distinct political ideologies. Germany was guided by Hitler’s fascist regime from 1933 (Heywood, 2017, p. 195). The Soviet Union was built upon communist ideals projected by Vladimir Lenin and the successful October Revolution of 1917 (ibid, p. 114; Corney, 1998, p. 396). The United Kingdom was a long-standing liberal democracy created by the legislature of the 1689 Bill of Rights, which gave Parliament power over taxation and limited the role of the Monarchy (Lock, 1989). At no other point before, during, or since, the twentieth century, did three global political ideologies compete for supremacy. From 1945, only democracy and communism remained in ideological conflict, as the Soviet Union and United States emerged from the Second World War as geopolitical superpowers (Barcan, 1993, p. 50).

The chapter shall explore how the NFTs represent a plurality of perspectives on political ideology within the epoch. These expressions, designed and implemented by the developer-curators, intrinsically connect to the geopolitical and economic representations of history that have been examined within previous chapters. However, *Holliv*’s reflections on political ideology are distinct and should also be illustrated as a separate phenomenon. Firstly, the chapter will define the concept of ideology, understanding the term through a dual perspective of political and historical ideology. The chapter will then determine how communism and fascism are uniformly categorised by *Holliv* under the umbrella term of totalitarianism. The entire simulation of *Holliv* permits the German Reich and Soviet Union to

systemically enact multiple acts of aggressive geopolitical and military endeavours, notably associated to the Spanish Civil War. In contrast, democratic nations are constrained by *HolIV*'s system limitations as a direct consequence of their political ideology.

Following this, the chapter will consider how the Soviet Union's NFT projects the political power of totalitarianism. Through the incorporation of Tannu Tuvu, the Soviet Union is understood as an entity which can immediately subsume weaker nations. Through reflections of authentic-lite rhetoric, *HolIV*'s conception of the Great Purges interprets that the Soviet Union possessed total ideological control over all aspects of the nation. The nation is characterised as possessing the political capability of purging the military of all individuals who would potentially challenge the establishment. However, while *HolIV* illustrates the colossal impact of Stalinist ideology on the nation's military position, broader social implications are not considered. Through a limited number of focuses, the developer-curators also present partial interpretations on the impact of Stalin's personality cult and its links to a potential war against Germany.

The chapter will then examine how *HolIV*'s depiction of political ideology also relates to the NFT's representation of economic power during the epoch. Within the German Reich NFT, a collection of focuses reinforce the narrative that constructing the autobahn road network was indicative of a flourishing economic and political powerhouse. In contrast, the NFT of the United Kingdom is characterised by a curated interpretation that the nation was politically and economically ill-prepared for a coming conflict. In order to succeed against the totalitarian powers, computation and text present a historical narrative that the United Kingdom utilised both private and public industry to rapidly rearm. The chapter concludes by offering an analysis of how the unique Canadian NFT demonstrates a distinct image of historical determinism in economic and industrial progress within the British Empire. The focuses on Canada's NFT illustrate an industrial progression that is tied to its close diplomatic and political relationship

with Britain, and its status as a wealthy liberal democracy.

Defining Expressions of Ideology

The systemic and textual elements of *HolIV* project partial and curated historical claims concerning the role of political ideology to the origins of the Second World War. Yet, the game and its extensive paratextual material does an inadequate job in demonstrating how it defines ideology. From *HolIV*'s strategy guide, ideology is described as an abstract ambition of a political goal, "So is the game over once we have peace? Maybe? You can play forever if you want, though you will run out of technology to research. The game just continues...until everyone is united under one ideology" (Goodfellow, 2016, p. 56). This statement presents the prospect of a global universal ideology as the ultimate goal of a campaign. This text speaks little to how political ideology is represented in-game. Even the usually comprehensive archive of HOI4 Wiki does not provide any contextual statements which elucidate upon how the developer-curators understand the concept of political ideologies during the epoch (SolSys, 2017b).

In the absence of any overt textual context for ideology, it is useful to consider an academic definition. The historical roots of ideology are situated in the French Revolution. The word was first coined in 1796 by Antoine Destutt de Tracy and referred to a new scientific approach as "a new science of ideas" (Heywood, 2017, p. 5). In the nineteenth century, ideology became a key political term in the treatise of German philosopher Karl Marx: a temporary phenomenon concerning the delusion, mystification, and manifestation of political power (ibid, pp. 5-6). However, through the twentieth and twenty-first century, ideology has mutated into a highly ambiguous term (Thompson, 2011, p. 1). According to David McLellan (1995), ideology is one of the most elusive concepts within social sciences. There is no settled or agreed definition of a term which holds a plurality of meaning (Heywood, 2017, p. 4). Among the multiple meanings of ideology is a political belief

system, an action-oriented set of political ideas, or the worldview of a particular social class or social group (ibid, pp. 5-6).

In the face of this ambiguity, the thesis will define ideology in the context of how the concept is applied in-game as a distinct form of political ideology. This perspective befits the research's emphasis on how the NFTs systemically and textually convey competing historical expressions of political ideologies. Roger Scruton (2007, p. 317) succinctly defines ideology through this political scope as any "systematic and all-encompassing political doctrine...to derive therefrom a programme of political action". For Scruton, ideology should be understood explicitly as political ideology (ibid). Andrew Heywood (2007, p. 2) makes the persuasive case that political ideologies fundamentally guide political actions and shape our material lives. As a component of their attempts to model the historical span of the epoch, the NFTs systemically and textually interpret the distinct political ideologies of the German Reich, Soviet Union, and United Kingdom. The NFTs simulate a linear programme of historical events as influenced by political doctrine. Adding wider context to his definition of ideology, Scruton (2007, p. 317) also argues that "ideology denotes any set of ideas and values which has the social function of consolidating a particular economic order". As a consequence of their deterministic structure, the NFTs also consolidate and attribute causal relationships to political ideologies of economy across the epoch. Therefore, it is useful to utilise both of Scruton's conceptions of ideology in the thesis. The NFTs as digital diagrams of historical progression offer a dual perspective on ideology from both political and economic perspectives.

However, the NFTs also express ideology on history as form. Through the innate mechanism of the NFT as a linear bundle of individual chained focuses which simulate progression through the epoch, they portray contemporary ideological arguments about how history can be understood within digital games. Specifically, the NFTs convey a unique perspective on theoretical considerations of historical development through determinist perspectives. As discussed in chapter 4, *HoIV* views the progression of history through the scope of 'whig' history, a term with

foundations in a specific mode of mid-nineteenth century British history that stressed the importance of the progression of liberty, parliamentary rule, and religious tolerance (Wilson and Ashplant, 1988, p. 2). The writing of historian Thomas Babington Macaulay has become associated to the concept of whig history, punctuated by an interpretation that “things had gotten better since the Glorious Revolution of 1688 and were getting even better in post-Reform Bill England” (Sullivan, 2009; Pritchard, 2010, p. 91). Through player progression in the NFTs, the political, economic, and technological position of all nations improve during the epoch. This improvement is substantially located in the NFTs existence as a specific game mechanic of progression and development. This is particularly demonstrated in the NFT’s portrayals of economic history as examined in chapter 6. The thesis contends that the NFTs represent the developer-curators’ interpretations of history as a consistent programme of incremental progress as understood through the ideology of whig history.

Similarly, Scruton (2007, p. 301) argues that theories of history partly constitute the “process of change in human societies over time”. As a digital structure, the NFTs convey the process of human change from 1936. The specific and unique construction of the NFT reflects developer-curator ideologies about history as a form and as a process of innovative change. As Willie Thompson (2011, p. 1) argues, “neutrally defined, ideology could be regarded as an interconnected system...applicable to particular social or cultural collectives...which incorporates conscious beliefs, assumptions and unthinking modes of perception”. This is a highly useful conception of ideology that considers both historical and non-political expressions of the term. The NFTs embody an interconnected ideological system of historical belief. In particular, they reflect the ideas of a collective of developer-curators who programme an explicit viewpoint on historical development and progression towards an inevitable conflict. The NFTs project the notion that technological, economic, and political innovation drives historical progress on an inevitable chained course (Wyatt, 2008). This partial ideology on historical development is consistently disseminated to the player through the NFTs.

Ideology cannot be categorically defined. Therefore, when considering this contested concept, it is useful to understand the term through a split meaning. In order to understand how *HoIIV*'s NFTs convey ideology, it is necessary to accept and utilise different notions of the term. Ideology can be understood through political connotations as a reflection of the political doctrines of individuals, nations, and regimes. Simultaneously, ideology can also identify contemporary systems of historical meaning-making within popular culture. The NFTs, as a curated digital system of progression, demonstrate ideology dually as a political and historical phenomenon, proliferating how the developer-curators diversely model ideologies of historical progression.

Totalitarianism in the Game System: Germany and the Soviet Union

The 1930s was an era of political polarisation, where “totalitarian government opposed...liberal democracy” (Scruton, 2007, p. 317). This broad historical perspective is espoused by the entire game system of *HoIIV*. The NFTs should be seen as the most significant component of the simulation that projects curated systemic interpretations which unite the politically disparate ideological regimes of the German Reich and Soviet Union. Many popular historical studies concerning the origins of the Second World War explore how Germany's aggressive territorial actions instigated a global conflict in Europe (Evans, 2005; Kershaw, 2015; Overy 1988). However, the NFT system model allows each nation playable within the game, through historical or ahistorical means, to directly ignite an ahistorical and counterfactual version of the Second World War. Therefore, a nation's in-game political ideology plays a crucial role in dictating how quickly and effectively they can instigate a conflict.

HoIIV's computational conception of the political ideologies of the German Reich and Soviet Union is built upon accepted historical notions of totalitarianism. Academic comparisons between the political ideologies of the nations are not unusual (Geyer and Fitzpatrick, 2009, p. 1). Michael Mann (1997, p. 135) argues

that “The two regimes belong together...It is only a question of finding the right family name”. There is an abundance of general scholarship that explores how each nation similarly attempted to control their population through explicit political machinations associated to the concept of totalitarianism (Bullock, 1962; Conquest, 2001; Overy, 2004; Kershaw and Moshe Lewin, 1997). The term ‘totalitarianism’ first entered popular discourse in the 1920s in reference to Italian fascism (Halberstam, 1999; Whittam, 1995, pp. 6-10). Totalitarianism gained more scholarly currency and publicity during the Cold War (Geyer and Fitzpatrick, 2009, p. 4; Tucker, 1961). The term was predominantly disseminated in popular culture by political theorist and philosopher Hannah Arendt’s (2004) *The Origins of Totalitarianism*, published in 1951. The concept of totalitarianism was defined by Arendt as a uniquely twentieth century phenomenon; social and political revolutions following the First World War spawned decidedly new forms of tyranny through political ideologues of fascism, semi-fascism, and one-party and military dictatorships (ibid, p. 387; Tormey, 1995, p. 1). Twentieth century totalitarian regimes, like the absolute monarchies of early modern Spain, France, and England, were all specifically different and each possessed their own unique characteristics (Arendt, 2004, p. 392). Yet thematically, the regimes held similarities through their overall political ambitions and practical methods of population repression (ibid).

In this era of post-Second World War research, alternative definitions of totalitarianism were produced by Carl Friedrich and Zbigniew Brzezinski in 1956 (Menand, 2003; Tormey, 1995). Eschewing discussion on how totalitarian regimes came into existence, the authors identify six criteria that a regime must possess in order to be defined as totalitarian: single party, ideology, terror mechanisms, communications monopoly, directed economy, and a weapons monopoly (Friedrich and Brzezinski, 1956; Schorske, 1956, p. 367). Brzezinski’s (1956, p. 751) research distinguished the characteristics of totalitarian regimes across history more comprehensively. For example, the totalitarian tendencies within the Shogunate in early modern Japan “stressed to a high degree the acquiescence of the population in centralized control” (ibid, p. 754). In contrast, modern totalitarian states were new forms of dictatorship systems:

“where technologically advanced instruments of political power are wielded without restraint by centralized leadership of an elite movement, for the purpose of effecting a total social revolution, including the conditioning of man, on the basis of certain arbitrary ideological assumptions proclaimed by the leadership, in an atmosphere of coerced unanimity of the entire population” (Brzezinski, 1956a, pp. 1-8).

Through this understanding, the advances in technology made across the twentieth century helped to define totalitarianism as a new form of government. Notably, communication technology changes in the early twentieth century were a crucial factor that differentiated totalitarianism from more historical authoritarian regimes (Tucker, 1961, p. 378).

The study of totalitarianism continued to gain popularity across the twentieth century. Increases in research on totalitarianism partly stemmed from the examination of newly opened archival materials that revealed Stalin’s central role in programmes of political terror (Goldman, 2011, pp. 4-5; Nove, 1989; 1992). In particular, European scholars focused on how the power of contemporary nation states called upon the totalitarian frameworks invoked by Stalin (ibid). In this context, definitions of totalitarianism are bound up with a judgement of a political regime as one with total power to suppress and repress individual and group freedom (Gleason, 1995, p. 10 and p. 161; Walicki, 1996, p. 505). This concept argues that totalitarian political ideologies operate by regulating and coercing the lives of every citizen (Kelsen, 2011, p. 6). The thesis understands totalitarianism through this perspective as a form of government that enacts total suppressive control over the individual and collective population. In popular study, the main intent of the concept of totalitarianism was to tie together the two tyrannical systems of Germany and the Soviet Union (Walicki, 1996, p. 508). Yet, it is difficult to comprehend the two states as entirely similar regimes. Both systems of government are wholly different social and political phenomena arising from divergent societal and historical origins (Kershaw and Lewin, 1997, p. 4). Nazism tried to extend state control of the economy, yet unlike the Soviet Union, the

German Reich did not politically aim for the total abolition of the market economy (Walicki, 1996, p. 508). However, there a substantial quantity of popular literature that identifies historical, economical, and political trends which intersect throughout both nations. This work illustrates that a comparative consideration between the regimes remains an appropriate concept that can be applied to the thesis.

Despite their mutual ideological enmity, landmark events across the 1930s suggest that both regimes shared political similarities (Geyer and Fitzpatrick, 2009, p. 21). This thesis does not seek to offer a systemic comparison of Stalinism and Nazism. Instead, the significance of totalitarianism is situated in how it helps to explain how the wider system of *HolIV*, predominantly through the NFTs, allows fascist and communist nations to perform similar aggressive diplomatic and military moves which democratic or non-aligned nations cannot. Within the simulation's game mechanics, these two nations are similarly characterised as territorially aggressive nations who possess the governmental and political capacity to instigate an offensive conflict. This notion reaffirms Kuiper's (Pennington, 2018b) claim that both nations are modelled for "an aggressive playstyle". Outside of the NFTs, fascist and communist nations are able to utilise the simulation's extensive collection of in-game diplomatic and political systems. For example, both the Soviet Union and the German Reich can justify a 'war goal' on any nation outside of their faction or ideology without any prerequisite conditions (CommanderFlo44, 2020). A war goal is needed to formally declare war in *HolIV*. Justifying a war goal costs 'Political Power' points, and takes between 6-9 in-game months to fully complete; by enacting the justification process the world tension percentage is decisively increased (ibid). While the player must wait an allocated amount of in-game time to justify a war goal, totalitarian nations possess the systemic means to engage in this process more quickly than other nations, enjoying the ability to declare an aggressive war on almost any democracy in the initial stages of a campaign.

In contrast, democracies such as the United Kingdom are strictly limited by the game system in how they can enact wars. They cannot start a war against another

democracy, and they cannot justify a war goal against a nation which has not increased world tension during a campaign (ibid). This game mechanic is an interesting reflection of the nature of liberalism as understood by Francis Fukuyama (1989). The historian characterises liberalism as:

“a pragmatic tool for resolving conflicts in diverse societies, one that sought to lower the temperature of politics by taking questions of final ends off the table and moving them into the sphere of private life...If diverse societies like India or the United States move away from liberal principles and try to base national identity on race, ethnicity, or religion, they are inviting a return to potentially violent conflict” (ibid, 2020).

In *HoIIV*, democracies are systemically set as diplomatic and non-violent entities, echoing Fukuyama’s arguments on how liberal nations seek to “lower the temperature of politics” (ibid). By disallowing democracies to declare war on each other, *HoIIV*’s computational restrictions significantly hamstring democracies by giving them a limited purview of diplomatic options. Meanwhile, fascist and communist nations have no system restrictions on justifying war goals, allowing them to plan an attack on almost any nation without statistical penalties. Through these systems, fascist and communist regimes are partially interpreted as institutionally violent and quick to mobilise for aggressive conflicts. The game’s curated system of limiting diplomatic actions produces authentic-lite rhetoric that fascist and communist nations were more easily able to embark on aggressive military endeavours than democracies.

The HOI4 Wiki entry for ‘Ideology’, while not providing adequate context to the developer-curators’ definition of ideology, usefully illustrates the computational traits that are statistically ascribed to each nation under communism, fascism, democracy, and the non-aligned ideology (SolSys, 2017b). These numerical values dictate what diplomatic actions a nation can or cannot perform within the simulation. There is a stark commonality between which system actions are open to the German Reich and Soviet Union. For instance, both nations can enact the same laws as a result of their political ideology. The conscription laws ‘Extensive

Conscription' and 'Service by Requirement', in-game national modifiers that determine the nation's available manpower for the armed forces, can be accessed immediately by communist or fascist nations upon the outset of a campaign (Dauth, 2019b). In contrast, there are system prerequisites that must be met before democratic nations can change their conscription laws, such as a higher level of world tension (ibid). Potent expressions of authentic-lite rhetoric are also made through the surplus of potential diplomatic actions that can be undertaken by Germany and the Soviet Union. Both nations can create puppet nations in peace conferences and are not limited to declaring war on other nations by the current level of world tension (SolSys, 2017b; ReAn, 2020a). Viewed alongside their surfeit of additional options for justifying a war goal on opposing nations, the Soviet Union and German Reich can declare war on any nation swiftly without incurring any substantial systemic penalties modifiers to military strength (CommanderFlo44, 2020). This facet of *HoIIV*'s computational processes projects an authentic-lite rhetoric that conceives of both nations as guided by a militaristic and offensive political ideology that permits quick escalations of war and rewards overt military aggression.

There are also various ideological traits attributed to communism and fascism within *HoIIV* that are rooted in historical realities. For example, communist and fascist nations can occupy the territory of neutral nations (SolSys, 2017b). This system stipulation invokes the historical territorial invasions of neutral countries by both the Soviet Union and German Reich. For the Soviet Union, this can be evidenced by the invasion and occupation of neutral Lithuania in June 1940 (Clemens, 2001, p. 6; Winkelmann, 2017). In contrast, the German Reich is charged with the aggressive invasion of neutral Denmark on 9 April 1940 (Gram-Skjoldager, 2011, p. 235). Furthermore, communist and fascist nations can send volunteer military units into other wars within the game (SolSys, 2017b). This diplomatic action is heavily influenced by popular historical perceptions of the 1936 Spanish Civil War. The conflict began with a nationalist military coup against the elected Republican government of Santiago Casares Quiroga between 17 and 18 July 1936 (Graham, 2005, p. 1). The political situation in Spain was complex and split between

various factions. However, in popular culture and literature, it has been framed as a conflict between a right-wing nationalist coalition lead by General Francisco Franco, and the republican movement: a majority left-wing but divided coalition with participants from the Spanish Socialist Workers' Party and the Communist Party of Spain (Firsov, Klehr and Haynes, 2014, p. 68). The Spanish Civil War is noted for the clandestine involvement of both the Soviet Union and German Reich, who sent volunteer military units to aid the Republican and Nationalist movements respectively (Carroll, 2012, p. 642; Jurado, 2013; Schauff, 2008). In the case of the Soviet Union, the nation sent military personnel to Spain to organise the International Brigades in order to fight for the Republic (Firsov, Klehr and Haynes, 2014, p. 70). However, there is scholarly contention and debate surrounding the moral and military aspects of the International Brigades' record in the war and their relationship to Russian foreign policy (Stradling, 2010; Newsinger, 2001, p. 843). Both nations became extensively involved in the military side of the conflict (Firsov, Klehr and Haynes, 2014, p. 73). In both popular culture and popular history narratives, Germany's involvement in the conflict is epitomised by the Luftwaffe bombing of the Basque town of Guernica on 26 April 1937 (Tharoor, 2017).

By permitting the German Reich and Soviet Union to send volunteer forces to the Spanish Civil War and contribute to wars indirectly, *HolIV* creates a significant expression of curated authentic-lite rhetoric based on accepted historical narratives that the political ideologies of fascism and communism were actively engaged in aggressive proxy wars. Forum comments on the conflict highlight how the game system always allows member states of the Axis and Comintern can send their very best military units (anotherluckyday, 2017; Northern_Musa, 2017). In stark contrast, the United Kingdom cannot send volunteer forces and do not have any historical events which model their diplomatic reaction to the Spanish Civil War (CommanderFlo44, 2020). This presents a reductive view of the conflict; this particular curation of the game system excludes the historical contribution of English volunteers, such as the writer George Orwell, who went to Spain to fight for the Republicans (Orwell, 2000, p. xiv). *HolIV* reduces the broader historical significance of the International Brigades, neglecting to reference an organisation

that saw active groups of volunteers from many countries (Stradling, 2010, p. 747). Consequently, the simulation's allowances for communist and fascist nations to enact aggressive military actions within the Spanish Civil War is a substantial reflection of authentic-lite rhetoric that favours systemic equations of political determinism. The nations are viewed as similar extreme political ideologies that share explicit military ambitions. However, *HolIV* cannot account for the intricate and personal histories surrounding individual volunteer forces. Ultimately, through the developer-curator's conception of accepted historical events, *HolIV*'s system allows Germany and the Soviet Union to perform a suite of similar aggressive diplomatic and military processes. In the unique case of the Spanish Civil War, authentic-lite rhetoric expressions made by the developer-curators present a viewpoint that fascist and communist nations had similar totalitarian capacity to commit their military forces to ideological wars in neutral nations. The possible actions available to the nations are almost always aggressive and focus on exerting outward military force.

Improving the Military through Political Ideology: Tannu Tuvu

The NFTs provide the most potent site for demonstrating how *HolIV* disseminates curated historical interpretations about political ideology across the 1930s. By considering how the Soviet Union NFT facilitates the political actions of totalitarian nations, the thesis can determine how *HolIV* systemically and textually presents curations that understand totalitarianism as a dynamic political ideology that played a significant role in rapidly developing the military and geopolitical interests of the nation. As has been discussed in chapter 5, the German Reich NFT reconfirms popular narratives surrounding the nation's sequence of European territorial reclamation and expansion. Conversely, it is possible to evidence how communism, and by extension, totalitarianism, is represented on the Soviet Union NFT through focuses that model swift aggressive territorial expansion. Writing about the political motivations of the Soviet Union, the Czechoslovakian President Edvard Beneš states:

“My overall impression is that the Soviets want war, they have prepared for it...the Soviets are convinced that the time has come for a final struggle between capitalism, fascism and Nazism and that there will be a world revolution, which they will trigger at an opportune moment when others are exhausted by war” (Lukes, 1996, p. 40).

Political ideology is set by Beneš as the foundation for Soviet preparations for a coming conflict against competing global powers. This view is also projected within the Soviet Union NFT. The description for the ‘Comintern’ focus (DeadHeat16, 2020a) states that: “With the capitalist system entering its period of final collapse, the correct stance for all Communist parties must be a highly aggressive, militant, ultra-left line”. This description vaguely alludes to the historical establishment of the Communist International, an international collective of national communism parties founded by Lenin in March 1919 (McDermott, 1995, p. 111). Systemically, the completion of the focus raises world tension by 1% (ibid). Acting simultaneously, the focus’s text and associated system processes presents understandings of communism as political power that “grows out of the barrel of a gun” (Li, 1995, p. 325). The game system and text proliferates the notion that communist political ideology was a violent movement aimed at capitalising on an inevitable crisis of capitalism and liberal democracy. In this context, the focus affirms the popular notion of a communist ‘World Revolution’: “they [workers] have to destroy the bourgeois nation-state...they have to take collective control of the workplaces, the transport system...To defend their gains and complete their revolution, they have to spread the struggle across the world.” (Faulkner, 2017, p. 214). *HoIIV* systemically and textually reinforces the concept of political violence that is inherent within the Soviet Union’s communist ideology.

Yet, *HoIIV* does not project curated interpretations of political ideology through a historical example familiar to most European audiences. Instead, the ‘Annex Tannu Tuva’ focus models the subsumption of Tuva, a nation situated in eastern Siberia (RT, 2012). The ‘Annex Tannu Tuva’ focus sits six tiers down on the ‘Found the PCDI branch’ of the Soviet Union’s NFT (Figure 1). This branch is designed to represent

diplomatic focuses that prioritise international relations (DeadHeat16, 2020a). By enacting specific focuses on this branch, the player can engage in a war against Japan and Greece through the 'War With Japan' or 'Ultimatum to Greece' focuses (ibid). The 'Annex the Tannu Tuva' focus allows the Soviet Union to take over the nation automatically, assuming political and military control immediately upon completion. Multiple focuses on the 'Found the PCDI branch' promote a common interpretation that the geopolitical ambitions of the Soviet Union were ideologically based in politically aggressive attempts at territorial expansion. The 'Annex the Tannu Tuva' focus models the Soviet Union's 11 October 1944 incorporation of Tuva, a country approximately the size of Greece (Alatalu, 1992, p. 881). However, unlike most of the national focuses within *HoIIV*, there is no historical textual description for the event. This projects an outward expression that the developer-curators could not comprehensively convey the historical context or significance of the event to the narrative of the Second World War. In contrast, on HOI4 Wiki, there is a small amount of text on the historical background on Tannu Tuva (Dauth, 2018b). This is highly interesting example of *HoIIV*'s paratexts providing a more comprehensive historical description of the nation that is not present within the game's direct contents.

Understanding the historical trajectory of Tuva is useful in order to situate its diplomatic relationship with the Soviet Union. The nation is geographically set between the border of Russia and Mongolia in eastern Siberia (Rupen, 1965, p. 609). Until the middle of the ninth century, present-day Tuva was part of the Turkic and Uighur khanates (Mongush, 2006, p. 276). The land was conquered by the Mongols in the thirteenth century and by the Manchurians in the eighteenth century, remaining a component of the Chinese Qing Empire across the nineteenth century (ibid). After the collapse of the Qing in 1911, Tuva became a Russian protectorate (ibid). After the First World War and the October Revolution, in 1921 the Tuvan People's Republic was formed (Alatalu, 1992, p. 881). Between its 1921 formation and 1944, the nation existed as an independent nation with diplomatic contact between other nations and internal and foreign policy (ibid). For example, in November 1925, the independence of Tuva was officially recognised by Mongolia

and diplomatic relations were established in August 1926 (ibid, p. 884). On 11 October 1944, the Tuvan People's Republic was incorporated into the Soviet Union as an Autonomous Oblast of the Russian Soviet Federated Socialist Republic (Rupen, 1965, p. 609). Historical accounts reinforce the relative immediacy of the Soviet Union engulfing Tuva into the nation (Alatalu, 1992, p. 881). Yet, the process of influencing Tuva towards the Soviet Union had begun across the mid-1930s through the policy of sovietisation (Mongush, 2006, p. 275). The Soviet Union converted Tuva's traditional nomadic clan formations into the towns, industries and collective farms that already existed throughout the country (ibid). Between 1938-39 the Tuvan People's Republic also started to issue Stalinist decrees, marking the beginning of the end to the nation's political independence (Alatalu, 1992, p. 887).

Critically, the Soviet Union NFT does not model the process of sovietisation. Instead, the simulation abstracts the historical period to produce interesting expressions of the strength of communist political ideology as fixated on territorial expansion. By completing the 'Annex Tannu Tuvu' focus, the Soviet Union is given the territory immediately (Deadheat16, 2020a). There is no delay or set of hidden computations and equations that must be enacted before the annexation can be formally processed. Only one computation process is created, resulting in 'The Annexation of Tannu Tuva' event textbox appearing to the player (SolSys, 2019). The event description states that, "The Supreme Soviet has received a formal request from the Tuvan parliament for membership in the Soviet Union. They will be organized as the Tuvan Autonomous Oblast in the Russian SFSR" (ibid). By plainly stating how Tuva will be incorporated into the nation, this text invokes the apparent organisational power of the Soviet Union. The immediacy through which the Soviet Union can annex Tuva through the game system presents a curated argument that communist ideology was able to easily annex smaller territories without any political instability or military hardship. Furthermore, the text's reference of the Tuvan parliament requesting membership to the Soviet Union alludes to the developer-curator's perspective of the overwhelming potency of communist ideology on the small Tuvan nation.

On HOI4 Wiki, visible text for the systemic properties of the 'Annex Tannu Tuva' focus states that the Soviet Union AI "always" annexes the territory successfully (DeadHeat16, 2020a). This produces an authentic-lite rhetoric which considers the absorption of Tannu Tuva as an inevitable historical event. There is no system inside *HoIIV* that will produce an ahistorical outcome and reject the annexation. The game's computations also project an interpretation on the limited historical significance of the annexation. Unlike the German Reich's remilitarisation of the Rhineland, or annexation Czechoslovakian Sudetenland, there is no world tension percentage increase by successfully completing the focus (ibid). Through the game system's minimal changes to world tension, and the focus' absence of historical descriptive text, *HoIIV* reinforces the perspective that the erasure of Tuva was considered insignificant to global politics and industry. This is a developer-curator curation of the past built upon historical interpretations that the annexation of the territory is an insignificant geopolitical inevitability. When the nation was absorbed, it passed unnoticed by the world and the Soviet people; the first news of the event was published in the 1 November 1944 issue of *Tuvinskaya Pravda* published in Kyzyl (Alatula, 1992, p. 881). Furthermore, western accounts of the Second World War also fail to account for the existence of Tuva as either a participant in the war, or through its role in the expansion of the Soviet Union (ibid).

Despite registering no world tension, the Soviet removal of Tuva is historically important to the simulation. By its existence on the Soviet Union NFT, the event is prominently represented within the game system. This perspective understands the event as a significant moment in the Soviet Union's geopolitical history. The developer-curators could choose to model many events from the plethora of popular discourses about the origins of the conflict. That the developer-curators deliberately decided to programme the existence and Soviet annexation of Tannu Tuva produces an interesting expression of authentic-lite rhetoric that understands the nation as a significant participant in the epoch despite the lack of substantial historical literature discussing the nation's role in the Second World War. The primary significance of the 'Annex Tannu Tuva' focus remains in how it demonstrates *HoIIV's* arguments about political ideology. The annexation of Tuva is

set as an immediate seizure of territory by the Soviet Union. Through this focus, the nation's NFT reinforces the partial concept that communist ideology is primarily concerned with aggressive territorial expansion. This perspective aligns with Kuiper's (Pennington, 2018b) admission that *HolIV* is designed for totalitarian nations to conduct campaigns of expansion "using military power and diplomatic guile to expand their influence".

The Great Purges

Through conceiving of totalitarianism as total state power and individual and collective repression (Walicki, 1996, p. 505), the Soviet Union NFT proliferates partial interpretations of the power of political ideology within the nation's internal history. The developer-curators position the ideology of the Soviet Union as attempting to domestically prepare for a global conflict through improving their military and industrial position by any means necessary. John Getty and Roberta Manning (1993, p. 1) argue that:

"The Soviet system under Stalin consisted of a non-pluralist, hierarchical dictatorship in which command authority existed only at the top of the pyramid of political power. Ideology and violence were monopolies of the ruling elite...At the top stood an autocratic Stalin whose personal control was virtually unlimited in all areas of life and culture".

This understanding of Soviet politics emphasises the total control that Stalin exerted over the populace (Nove, 1989; 1992). The use of violence and repression against all rungs of Soviet society is understood by *HolIV* as a fundamental component of Stalin's regime and communist political ideology. In the NFTs, the game presents Stalin's methods of total rule as fundamental to the nation's preparation for a global conflict.

From *HolIV*'s January 1936 start date, the Soviet Union begins in a precarious political position. The nation's political ideology is displayed at the centre of these ruptures. The country starts with an active 'Trotskyite Plot?' national spirit modifier

(Morlandski, 2020). The modifier description states that “pathological distrust stemming from old power struggles impact the leadership of this nation” (ibid). ‘Trotskyite Plot?’ is an interpretation of paranoia over ideological challenges to Stalin’s regime. Systemically, the modifier actively reduces the ‘National Unity’ statistic. Reflected as a percentage, this value dictates the total amount of the nation’s recruitable population (Zauberelefant, 2020). ‘Trotskyite Plot?’ reduces this total by 20% until it can be removed (DeadHeat16, 2020a). In both the textual description and systemic effects of the national spirit modifier, the game alludes to Stalin’s personal paranoia that his leadership position was under threat from the Soviet revolutionary Leon Trotsky (Rubenstein, 2011, p. ix). In early 1936, Trotsky was in exile in Norway, but continued to publish writing which was critical of Stalin’s regime (Cavendish, 2011; Rubenstein, 2011, p. 171). The fissures between Stalin and potential challengers to his leadership are modelled by two focuses on the NFT: ‘Permanent Revolution’ and ‘The Great Purge’ (DeadHeat16, 2020a). These sit at the top of the ‘Permanent Revolution/Great Purge branch’ on the Soviet Union NFT (DeadHeat16, 2020a) (Figure 22). The branch is described as “internal restructuring to unlock the full power of the Soviet Union” (ibid). This rhetoric suggests that the Great Purges, or an ahistorical civil war, were influenced by Stalinist political ideology of the Soviet Union. *HoIV* argues that resolving these internal political issues will result in a consolidated powerful nation. In order to progress down the ‘Permanent Revolution/Great Purge’ branch, the player must choose between the two focuses. There are no prerequisites needed in order to enact either focus and the national spirit ‘Trotskyite Plot?’ will be erased by their completion.



Figure 22: Screenshot of the ‘Permanent Revolution/Great Purge branch’ on the Soviet Union NFT.

The historical description for the ‘The Great Purge’ focus states:

“There is a dangerous Trotskyist plot brewing among the officers; even in the highest ranks. Though Trotsky's personal involvement remains unknown, the threat is great. The USSR could even be thrown into another civil war...unless we are prepared to break some eggs.” (ibid).

Echoing text associated to the ‘Trotskyite Plot?’ national spirit modifier, the description of ‘The Great Purge’ focus reemphasises Stalin’s innate paranoia over challenges to his position as an ideological leader (Kocho-Williams, 2008, p. 91). However, by completing the focus and removing the negative modifier, the player takes on a number of in-game computational risks. There is a small percentage chance for a civil war to break out in the Soviet Union between Stalin and Trotsky

(DeadHeat16, 2020a). Furthermore, even on a successful completion of 'The Great Purge' focus without the emergence of a civil war, the player is given the 'Trotskyite Plot Purged?' modifier to replace 'Trotskyite Plot?' (ibid). The description for the new modifier states that, "Despite the purges, the fear of betrayal remains", and reduces the nation's 'Stability' level by 15% (ibid). This modifier systemically illustrates the developer-curators perspective that there was a sharp decline in internal support for Stalin's regime as a consequence of the purges. Particularly, the visible divide between the 'Permanent Revolution' and 'The Great Purges' focuses on the Soviet Union NFT presents an authentic-lite rhetoric demonstrating the nation's political instability. Internal divides are systemically and textually conveyed as important factors in shaping how the Soviet Union is envisioned in-game as a paranoid totalitarian state.

Stalin's Great Purges between 1935 and 1938 represent a colossal socio-political project to consolidate his total power and prepare the nation for a global war (Olsen, 2001, p. 267). Stalin's political rivals and possible rivals were executed or sent to the gulags of Siberian Russia (ibid). The Great Purges embody totalitarian repression; violent social engineering and the elimination of individuals and groups that did not fit into an ideological community (Hoffman, 2003; Weiner, 2003; Kuromiya, 2007). Associated with *HoIIV*'s gameplay emphasis on military planning (Goodfellow, 2016, p. 3), the Great Purges had an overwhelming effect on the Soviet Union's armed forces. Robert Conquest (1971, p. 74) argues persuasively that Stalin's purges led to the decimation of the established military class. On 11 June 1937 it was announced that a significant number of the Red Army Command had been charged with treason against Stalin; the next day that they had been tried and executed (ibid, p. 277). The men were sentenced and executed after enduring the show trials that popularly characterise the internal history of the Soviet Union during this period (Conquest, 2008, p. 3). As a consequence of the nation's cull of senior military personnel, vast numbers of inexperienced soldiers were promoted to the highest echelons of the armed forces and were all loyal and fearful of Stalin's tyranny (Conquest, 1971, p. 647; Westwood, 1979, p. 102).

The system processes that occur as a result of enacting the 'The Great Purge' focus allow the developer-curators to pontificate on the power of totalitarian ideology. By enacting the focus, the player triggers a sequence of unique Soviet events related to the persecution of the state's enemies. These events are only triggered while the focus is being completed. The 'Fifth Column' event provides contextualising description for the Great Purges and appears to the player within the first 10% of the focus being completed (SolSys, 2019). The event states that, "Being purged from the Party means imprisonment or death. Dark times lie ahead for those who show disloyalty" (ibid). This text aligns with popular research on the phenomenon of the purges as the 'Great Terror' of repression (Conquest, 1971; 2008). There are no system changes made through this specific event; its purpose is only in conveying historical context. However, the 'Secret Trial of the Generals' event, which occurs once 50% of the focus has been completed, systemically represents Stalin's purge of military personnel (SolSys, 2019). Its description states that "Documents acquired by the NKVD have implicated several high-ranking officers as not only traitors, but spies. Mikhail Tukhachevsky is among the most prominent of the suspects" (ibid). The player is given three options to determine the fate of the nation's military staff, with two options resulting in a group execution (ibid). The first option, "Tukhachevsky must be tried in secret and executed immediately", results in the player losing a number of historical figures permanently from their military staff list, including Mikhail Tukhachevsky (ibid). These individuals cannot be redeployed within the player's armed forces, systemically demonstrating their demise as a consequence of the purges. Therefore, this event, accessible only during the completion of 'The Great Purge' focus represents a systemic conception of Stalin's ideological purge of established military commanders.

Upon the completion of 'The Great Purges' focus, the nation is given the national idea 'Officers Purged' (Solsys, 2019). This has significant consequences. Firstly, the Soviet Union can now access the 'Talented new officers' event (ibid). The description for the event states that, "Our new officers are proving up to the task and are adapting to their new roles in the military high command. With loyal officer

corps in charge...The Red Army is regaining its power” (ibid). This is a textual determination of the Soviet Union’s influx of inexperienced military leaders that would not challenge Stalin’s position of power (Conquest, 1971; p. 647; Westwood, 1979, p. 102). ‘Officers Purged’ also computationally conveys *HoIIV*’s historical perspective on the detrimental military impact of the Great Purges. The nation is given a 50% reduction to military division organisation speed, and a 10% research speed reduction in the aerial, land, and naval industrial technology tree (SolSys, 2019). As *HoIIV* progresses, nine iterations of the ‘Talented New Officers’ event appear in 146-day increments (ibid). As these events pass, negative modifiers reduce over time (ibid). There are also hidden computations associated to ‘Officers Purged’ that present curated interpretations on how the Great Purges impacted upon the Soviet Union’s ability to wage war. In the patch notes for version 1.5, the ‘Purged Officers’ idea “now has impact on training and factories” to further “slow down” the progress of the Soviet Union (Dauth, 2018). The system increases the time it takes for the nation to recruit soldiers and build military and civilian factories. Through this systemic impact, *HoIIV* presents significant depictions of authentic-lite rhetoric. Communist political ideology in the Soviet Union is understood as the total state power of Stalin. The computations associated to the historical ‘The Great Purges’ focus reinforce this perspective of Stalinist ideology. The Soviet Union is illustrated as an entity that will act for its own interests regardless of its detrimental impact on the military preparedness of the nation.

Subsequent focuses on the ‘Permanent Revolution/Great Purge branch’ of the Soviet Union NFT project a more positive interpretation of the Great Purges as effective ideological preparation for a global conflict. The two focuses directly following ‘The Great Purges’ are ‘Rehabilitated Military’ and ‘Military Reorganization’ (DeadHeat16, 2020a). These focuses model how the Soviet Union’s military class adapted to the loss of senior leaders and are complimentary focuses to the ‘Talented new officers’ event (SolSys, 2019). The focuses can only be accessed if ‘The Great Purge’ is completed. The description for the ‘Rehabilitated Military’ focus states, “With the taint of Trotskyism finally cleansed from the officer corps, it might be possible to allow the military some freedom” (DeadHeat16,

2020a). This text evokes paranoia within Stalin's regime and ideological dissent within the armed forces as the root causes of the Great Purges (Getty, Rittersporn and Zemskov, 1993). The focus also provides immediate military benefits; the player receives the 'Rehabilitated Military' national spirit modifier, which gives the Soviet Union a permanent increase of troop reinforcement speed by 2% and a division recovery rate of 10% (DeadHeat16, 2020a). Both of these changes are beneficial to the nation's military capacity, allowing the army to be replenished quicker during combat. Similar positive effects can be gained from the 'Military Reorganization' focus; its description reads, "The Purge has not left the military in a good state. The new leadership is green and ineffective...We must rectify this situation immediately!" (ibid). This statement understands the fundamental issues caused by the enforced removal of hundreds of senior military leaders (Goldman, 2011, p. 12). By completing the focus, the player is given 20 Army Experience points and one 50% speed bonus increase to researching land doctrine (DeadHeart16, 2020a). In combination, these two focuses convey the historical significance of the purges through their visible link to the 'The Great Purge' focus. Without this root focus, *HoIIV* argues that the Soviet army could not make military innovations during the epoch. The two focuses systemically argue that the consequences of the Soviet Union's political ideology directly impact upon the nation's future military capacity. This produces a curated historical interpretation that the long-term effects of the Great Purges resulted in a more effective military force that was ideologically loyal to the Soviet Union and Stalin.

HoIIV presents the Great Purges as an ideological event with both positive and negative impacts on the nation's military. In one sense, removing an entire military class places the military capabilities of the Soviet Union under severe strain. *HoIIV's* computations convey this strain through systemic penalties to the organisational speed of the military (SoISys, 2019). Conversely, the subsequent focuses on the NFT relating to the purges present the developer-curators' argument that, far from diminishing the Soviet Union's position, the Great Purges increased the nation's preparedness for an inevitable ideological conflict against capitalism (Procacci, 1963, p. 64). A new group of loyal and ideologically consistent personnel were

drafted into the military. Through the game's systems and processes, these new troops eventually provide the nation with a more effective force and bring new innovations to military doctrine (DeadHeat16, 2020a).

The Social Consequences of the Great Purges

The Great Purges did not just adversely affect the military class. While *HolIV* conveys how totalitarian ideology affected the nation's armed forces, it does not illustrate its social impact. David Shearer (2009, p. 3) argues that the purges were characterised by policies of repression across the entire populace, with the police arresting, deporting and executing millions of people. The forced removal, redistribution, and elimination of suspect populations became a mass social engineering project; between 1936 and November 1938 800,000 people were arrested and 367,000 were executed (ibid, p. 285). The Great Purges eliminated whole professions, such as economic planners and the Russian diplomatic service (Kocho-Williams, 2008, p. 90; Manning, 1993, p. 116). By destroying the diplomatic professions, new officials "far less capable than their predecessors and unable to act independently of Stalin" were introduced (Kocho-Williams, 2008, p. 90). Consequently, lines of communication between individuals, factories, and party institutions atrophied as thousands of managers, engineers and party members were executed or vanished (Ward, 1993, p. 84). The Great Purges were a strictly "top-down affair, launched by Stalin with the aim of eliminating any threat, whether potential or real, to his personal and ideological power over the state (Goldman, 2011, p. 4).

Critically, there is no significant systemic or textual depiction of the Great Purges within *HolIV* as a social phenomenon, although enacting 'The Great Purges' focus does produce minimal reflections of historical curation from the developer-curators. In the summer of 1936, mass arrests of former members of the Communist Party became more frequent (Manning, 1993, p. 120). Nikolai Yezhov is a central figure of the mass arrests of the political class. He was elected to the

Executive Committee of the Comintern in 1935 (Starkov, 1993, p. 24). On 26 September 1936, Stalin ordered Yezhov to take over the leadership of the political police (Manning, 1993, p. 117). Between October 1936 and February 1937, Yezhov oversaw the arrest of over 2000 individuals who supposedly had been working actively in anti-Soviet blocks, or for hostile governments (Shearer, 2009, p. 320).

'The Great Purges' focus only affects the military aspects of the nation and does not affect the nation's recruitable population statistic. Yet, in some respects, *HolIV* does model the impact of the Great Purges in relation to historical individuals. In 1938, the 'purgers' were also purged (Westwood, 1979, p. 102). Consequently, Yezhov met the same fate as those he had helped to eliminate. In 1939 he was charged with "leftist overreaction" and executed on 4 February 1940 (Starkov, 1993, p. 39). His arrest and trial were emblematic of the Stalin's ideological war against anti-Soviet elements within the nation (Kershaw, 2016, p. 270). *HolIV* makes systemic attempts to illustrate the historical significance of Yezhov. At the beginning of a campaign, he is among the pool of recruitable Soviet Union political advisors and has been included within that group since version 1.0 (Dauth, 2019a). Yezhov is designated as a 'Prince of Terror'; when employed he produces three benefits in relation to the internal consolidation of power: 'Effect of Partisan on us' is reduced by 25%, 'Foreign subversive activities efficiency' is reduced by 30%, and non-core manpower totals are increased by 2% (ibid). These statistics are connected to the internal stability of the nation. While the player is completing 'The Great Purges' focus, an in-game event titled 'Trial of the 21' can appear (SolSys, 2019). This event models Yezhov's sentencing and execution:

"After several rounds of arrests and trials, the Great Purge has weaved a narrative that led up to this trial. Among the accused are...a number of diplomats, politicians, military officials and even many high-ranking NKVD officers...The fact that the NKVD themselves are now among the targets of the purge has in a sense brought the proceedings in full circle." (SolSys, 2019).

On proceeding with this event, if the player chooses the response, "The navy and air force have been getting off easy so far", Yezhov is removed as a recruitable

political advisor (ibid). This event produces an curation of history through system and text that incorporates popular historical understandings of Purges and of the Soviet show trials (Conquest, 2008, p. 3). The event also systemically contextualises Yezhov's execution in relation to the repressiveness of Soviet political ideology during the epoch.

Through the example of Yezhov, *HolIV* distinctively models how the purges impacted on the nation's military capability and political stability of the Soviet Union. Stalin, through his totalitarian regime, destroyed the established Communist Party as an independent power base that could potentially challenge his ideological authority (Kershaw, 2016, p. 271). However, *HolIV* does not convey the mass social consequences of the Great Purges. There is no textual discussion on the impact of the purges, nor any systemic change to the statistical population levels of the nation. Therefore, the purges are abstracted by the developer-curators into an internal event which primarily affects the military and political class. As a consequence, *HolIV* ignores the "vast system of repression, directed against both individuals and whole categories of the population" (Bell, 1986, p. 115). This is a heavily curated representation where social history perspectives are excluded because they do not fit into the systemic abstraction of *HolIV* as a military game about the Second World War. *HolIV*'s partial representation of the purges conveys the limitations of the entire simulation, reconfirming the perspective of the game's advanced guide: that the history within *HolIV* is a total abstraction where "Your population exists not to be taxed, but to be given a gun and a mission" (Goodfellow, 2016, p. 3). As deliberately designed, *HolIV* does not enter discourses on the social consequences of the Great Purges. Following this argument, the in-game populations of the Soviet Union also exist not to be purged, "but to be given a gun and a mission" (ibid).

Silvio Pons (2002) argues that Soviet ideology was guided by the doctrine of the inevitability of war; Stalin and Soviet policy makers did not differentiate between the capitalist states of Europe, who all politically threatened the Soviet Union equally (ibid). In this context, the internal restructuring of the nation through the

Great Purges can be seen as a vital redistribution of power in order to wage war against the nation's many enemies. By utilising terror to consolidate his power within the Soviet and Party bureaucracies, Stalin was able to promote loyal but inexperienced personnel who were not willing to challenge the leadership (Shearer, 2009, p. 286). By systemically allowing the player to easily complete 'The Great Purges' focus without any prerequisites needed, *HoIIV* confers an accepted argument that the political ideology of the Soviet Union was uniquely disposed to undertaking a comprehensive campaign of social engineering, repression, and terror. Ultimately, the game's systemic and textual simulation of the Soviet Union during the 1930s offers a curated and reductive reflection of history, conveying an authentic-lite rhetoric which alludes to the broader terror of the Great Purges on the wider population, but does not fully embrace the brutal impact this repressive ideological programme had on Soviet society through the game's system processes and computations. Instead, the Soviet Union's political ideology is framed as a useful tool for ensuring that state power can be harnessed to swiftly prepare the nation for conflict, regardless of its damaging effects to the military.

Stalin's Cult of Personality

HoIIV projects contrasting historical interpretations on the unique phenomenon of the cult of personality. The term refers to individuals who are publicly perceived to have unique qualities and who are worshipped; their exalted image is proliferated through propaganda celebrations of the person as a leader (Pisch, 2016). Personality cults are associated with totalitarian regimes, with personality functioning as a political and ideological instrument of national policy (Strunsky, 1956, p. 266). The notion of a personality cult was formed in the early twentieth century as state leaders increasingly relied on new forms of mass media to project favourable images of their rulers (Leese, 2014, p. 341). The formal notion of the cult of personality was coined by Nikita Khrushchev at the twentieth congress of the Communist Party in 1956, the first since the death of Stalin in 1953 (Cavendish, 2006). In a closed session, Khrushchev denounced Stalin, his cult of personality, and

the crimes he had committed across his reign, such as the execution and imprisonment of loyal party members (ibid). Stalin represents one of the most infamous personality cults of the twentieth century. The dictator was the ideological centre of the Soviet Union during the 1930s and 1940s, exalted through the mythic image of a superhuman, one person embodying the best traits and characteristics of the Soviet people (Pisch, 2016, p. 164). He was portrayed publicly as the mastermind behind the Soviet Union's success in the Second World War (ibid, p. 292). However, the Stalinist cult was "bitterly repudiated by his successors" (Strunsky, 1956, p. 266). A comprehensive de-Stalinization programme was enacted by the Soviet Union across the 1950s which included the releasing of political prisoners, renaming placenames, and destroying Stalinist statues (Hunt, 2014, p. 130).

In stark contrast, there are few national focuses on the German Reich NFT that substantially convey a personality cult surrounding Hitler. The German dictator used the arts and emergent broadcast and propaganda technologies to maintain a personality cult (Pisch, 2016, p. 15). Ahistorical focuses on the German NFT, such as 'Oppose Hitler', are the only opportunities where the developer-curators present curated interpretations on the power and relationship between Hitler's personality cult and political ideology across the epoch. Yet, this focus was only introduced in version 1.5. This suggests that the developer-curators did not originally conceive that Hitler's personality cult was a significant component of Nazi Germany. This change underpins the thesis's argument that the historical interpretations within *HolIV* are also affected by the instability of the game as a changeable digital object.

The Soviet Union NFT features a range of focuses that reflect image of Stalin as the supreme leader of the nation and the embodiment of Soviet ideals in the 1930s (Pisch, 2016, p. 164). The 'Stalin Constitution branch' of the NFT represents a broader conception of Stalin's cult of personality. The branch is focused on improving the nation's manpower and research capacity (DeadHeat16, 2020a). However, the authentic-lite rhetoric of the focuses on this branch are distinctly influenced by Stalin's historical attempts to consolidate his own ideological power

through cultivating a personality cult. The 'Stalin Constitution' focus states, "It is time to update our old constitution and impress the world with the rights enjoyed by the workers and peasants of the Soviet Union!" (ibid). This focus reflects Stalin's rewritten constitution. In November 1938, Stalin published a rewritten history of the Russian Revolution (Arendt, 2004, p. 452). The propaganda of this new version consisted in destroying, together with older books and documents, their authors and readers: the publication of a new official history of the Communist Party was the signal that the super-purge which had decimated a whole generation of Soviet intellectuals had come to an end (ibid). This new propaganda also placed Stalin at the centre of Soviet Union ideals. The game system reflects this historical interpretation through focuses that can be accessed after completing the 'Stalin Constitution' focus. For example, the 'New Soviet Man' focus at the end of the 'Stalin Constitution branch' reinforces the interpretation that Stalin's totalitarian regime produced a new generation of soldiers who were unwaveringly loyal to the dictator. Maja Soboleva (2017, p. 67) argues that the concept of the New Soviet Man can be characterized as the period of development in the accepted norms of Soviet morality. The concept was connected with the idea of the renewal of humanity according to socialist, and predominantly Stalinist, ideals (ibid, p. 65). The notion of the 'New Soviet' even reached into childbirth practices and theories; minimalizing pain during labour was an ideological imperative of creating a new generation of New Soviet people (Bell, 1981, p. 1). The historical description of the focus illustrates these broad historical trends, "The New Soviet Man is selfless, learned, disciplined and healthy; a living triumph over base instincts and false consciousness. Men will gladly lay down their lives for the good of all, and women will bear many children for the future of Soviet society" (DeadHeat16, 2020a). The culture of the New Soviet Man was directed at forming an ideal human being, combining rationalism, collectivism, and establishing an ideologically homogenous social structure for social progress and evolutionary development (Soboleva, 2017, p. 70). A fundamental loyalty to the nation, communism, and to Stalin, was crucial in this identity. The systemic effects for completing the focus allows the Soviet Union to conduct Kamikaze Strike air missions during combat (DeadHeat16, 2020a). This computational change is also a reflection of authentic-lite rhetoric. During the

Second World War, Soviet pilots carried out more than 600 aerial ramming manoeuvres where the pilot would crash their aircraft into an enemy plane (Budnik, 2018; Zubok, 2009). This is a clear depiction of authentic-lite rhetoric that expresses the military consequences of the propaganda of the New Soviet Man, resulting in soldiers and airmen who would sacrifice their lives for the Soviet Union and for Stalin, in an inevitable conflict against capitalism. The political ideology of the New Soviet Man was historically potent; even as Stalin's image was being destroyed in the 1950s, the collective image of the New Soviet Man as a heroic "Builder of Communism" remained a valid ideal until the collapse of the Soviet Union in 1991 (Soboleva, 2017, p. 83). Through computational changes, *HolIV* makes persuasive historical interpretations over the success and significance of Stalin's cult of personality.

The Economic Impact of Political Ideology in Germany: Kdf-Wagen and the Autobahn

Alongside rapid rearmament, the German Reich's economic changes during the 1930s were in service of emitting a global message of supreme power (Shand, 1984). *HolIV* presents the nation's economic and industrial policies as symptoms of a totalitarian ideology fixated on preparations for a global war. Specific focuses on the German Reich NFT confirm this interpretation. The 'KdF-Wagen' focus is an in-game representation of a cultural and social economic policy which, according to the developer-curators, provided significant military benefits. The focus represents the German government's 1937 private car ownership scheme (Stephenson, 2008, p. 115). Its title highlights the importance of the KdF – *Kraft durch Freude*, otherwise known as Strength Through Joy – to the scheme (Flink, 1990, p. 265). The KdF was founded to improve the lives of labour workers through planned leisure trips (Spode, 2004, p. 127). As a component of a wider government strategy to produce armaments swiftly, Nazi living planners worked on the concept that better living conditions and working spaces would produce happier and more efficient workers (Zuelow, 2011, p. 167). Through the late 1930s, the KdF organised gigantic construction projects for seaside resorts and foreign trips, particularly for working-

and middle-class Germans (ibid). The 'KdF-Wagen' focus alludes to the plan's political propaganda ambitions. The KdF-Wagen vehicle was promised to hundreds of thousands of Germans (Flink, 1990).

On the economy branch on the nation's NFT (Figure 18), the 'KdF-Wagen' focus is directly linked to the 'Autarky' focus, illustrating the perception that the project was connected to German economic policies concerning rearmament. This systemic argument is also evident in the game's text. The focus description states, "We will allow our citizens to purchase their own future 'people's car' through a savings scheme...we will use to finance the construction of the factories" (AkatsukiEmpire, 2020a). This description is pitched from an opportunist military perspective; the money raised by the initiative is singularly invested into the nation's factories that are used to increase industrial output for a future conflict. By completing the focus, in three randomly chosen German states, two extra building slots are unlocked, and two civilian factories are automatically built. This is statistically beneficial for the player, but this computation does not align with the historical record. In May 1938, Hitler announced that a new plant and surrounding city, near Fallersben in Lower Saxony, would be constructed for production of the KdF-Wagen (Flink, 1990, p. 265). *HolIV* does not give the Saxony region any direct industrial increases as a result of completing the focus. Instead, *HolIV* presents a reductive view of authentic-lite rhetoric that the historical scheme was industrially and economically beneficial to the whole of the country, rather than a selective region.

However, Germany did not produce any vehicles from the scheme; the KdF-Wagen went into production in the 1950s and 1960s (Rieger, 2013, p.1). The plan allowed workers to purchase a Volkswagen for 990 Reichsmarks, however the actual cost of the plan came to 1190 Reichsmarks, and the contract did not oblige the state to deliver the car once the final payment had been made (Flink, 1990, p. 265). Under the KdF-Wagen plan, over 330,00 Germans paid over 280 million Reichsmarks in capital to build cars that they never received (ibid). These arguments reaffirm the scheme as a covert attempt for the state to fund its military procurement and rearmament drive. In this sense, the KdF-Wagen focus is an overt ideological policy

that directly aided the German Reich's preparations for an inevitable war. Furthermore, the KdF-Wagen initiative did produce the Kubelwagen, a light-weight military vehicle similar to the American Jeep, demonstrates the overriding military ambitions of the KdF-Wagen schemes (Kiley, 2002, p. 53). The Kubelwagens were utilised extensively on the Russian, and North Africa (ibid, pp. 53-54). Even by 1942, the Fallersben factory intended for civilian vehicles was producing only military vehicles; as evidence of its reliability and popularity, the factory shipped 5000 Kubelwagens to German military forces in Europe (ibid, p. 54). Therefore, *HolIV*'s systemic reward for enacting the 'KdF-Wagen' focus reconfirms the developer-curators perspective that the programme's ambitions were purely militaristic and intended to aid the nation's rearmament effort.

From *HolIV*'s 14 August 1939 campaign start date, the economy branch of the German NFT displays the successful completion of a myriad of economic and industrial focuses (Figure 18). This visible chain of progression demonstrates how *HolIV* perceives the economic successes of Germany between 1936 and 1939 as crucial in a potential war effort. The German motorway network, through the 'Reichsautobahn' focus, is understood by the developer-curators as important to this change. The autobahn is perhaps the most famous German infrastructural developments during this epoch; the electronic music group Kraftwerk made a major cultural reference to Germany's road system through their popular song 'Autobahn' (Kraftwerk, 1974). However, the rise of the motor industry, and the Nazi policy of motorisation, did provide an important contribution to Germany's push towards conflict (Overy, 1979, p. 107). On 27 June 1933, Hitler issued a law authorizing the building of the autobahn network (Evans, 2005, p. 322). These dual-carriageway roads would link Germany's major cities with one another, establishing a communications network that would allow citizens and freight to be transported with unprecedented speed (ibid). The autobahn originated from an Italian prototype built in the 1920s (Spotts, 2002, pp. 386-389). The project also served an ideological purpose for the Nazi regime, in linking the German soul to the woods, fields, and mountains of their native land (ibid).

In 1937, the architect Friedrich Tamms (2013, pp. 675-676) argued that the autobahn “could be ranked alongside the great monumental buildings of the past...a cultural monument”. Tamms understood the project as an ideological phenomenon, a perception that has persisted through the twentieth century. The cultural legacy of the autobahn was a result of its elevation to a central icon of the Nazi state which implanted the project into collective memory (Zeller, 2006, p. 2). This view is also advocated by Lisa Pine (2017, p. 262), who argues that “The *autobahnnen* were a sign of Nazi success...Germany’s vast and innovative motorway network became the best example of the use of modern techniques and design in the Third Reich”. The motorways were a potent symbol of national ideology, and represented a propaganda coup for Hitler, who was seen as uniting the nation through technological achievements (Shand, 1984). A significant propaganda campaign accompanied the building of the roads, through collectible cigarette cards and art exhibitions (Zeller, 2006, p. 2). The NFT textually reflects this positive ideological propaganda for the regime; the first sentence of the focus’ descriptive text states that, “Since its inception in 1933, the reichsautobahn project has been a glorious success” (AkatsukiEmpire, 2020a). This sentence is conveyed as pure propaganda, but the network has been popularly considered as an economic and diplomatic success. Overy (1995, p. 82) argues that while propagandists lauded the vast road schemes, they failed to see the true significance of these schemes. Similarly, John Guse (2011, p. 452) argues that autobahn construction “provided a lasting illusion of economic recovery and technological progress”. The motorisation of the German Reich was important as an ideological “imaginary force” which generated employment and was directly linked to industrial activity (Spencely, 1979, p. 101).

The infrastructural developments accompanying the establishment of the autobahn were not simply a matter of political propaganda. The project put over 70,000 workers into full employment (Pine, 2017, p. 262; Stackelberg, 1999, p. 120). The recovery and expansion of the motor industry was a significant boon for the regime with widespread positive effects for the nation’s economy. By 1938, work on the autobahn network and within the car industry accounted for one in twelve of the

employed workforce (Overy, 1995, p. 83). This positive effect is also present in the remainder of the descriptive text for the 'Reichsautobahn' focus: "The construction efforts have reduced unemployment, and the wide roads stand as a monument to Germany's economic recovery" (AkatsukiEmpire, 2020a). However, similar to the Four-Year Plan's intention to instigate a self-sufficient society, military concerns played a crucial role in the regime's approach to employment projects (Stackelberg, 1999, p. 120). *Holliv*'s perspective of the 'Reichsautobahn' focus produces computational effects which are militarily beneficial. By completing the focus, the player is given a maximum level of Infrastructure in four states: Brandenburg, Hannover, Thüringen, and Franken (AkatsukiEmpire, 2020a). This systemic change roughly reflects the locations of where the autobahn existed between Frankfurt and Darmstadt, linking Berlin and Hannover to the western borders of the nation (The News Wheel Staff, 2015). An increase in the infrastructure statistic is highly useful, increasing national military supply and allowing for the quicker logistical replenishment of equipment (Mister Analyst, 2019). Land units are also given an increased speed of movement across provinces (ibid). Furthermore, a higher infrastructure level increases the total number of buildings which can be constructed in a state, and increases a state's resources output by 100%, effectively raising the nation's total of raw materials (ibid). Through system processes, the 'Reichsautobahn' focus explicitly improves the military position of the German Reich. The developer-curators present systemic and textual authentic-lite rhetoric that illustrates how a project that embodies the "ideology of fascism" boosted Germany's war preparation (Rollins, 1995, p. 494). The game system combines with visible textual descriptions to produce a curated interpretation that the autobahn network, ostensibly an exercise in promoting Nazi political ideology, was also a project of military significance.

Democracy: Private Enterprise and Reactive Preparations for War

In distinction to the Soviet Union and German Reich NFT, the United Kingdom's NFT expresses a distinct interpretation that democratic nations struggled to develop

their industrial capacity as quickly as totalitarian nations. As a political ideology, democracy is interpreted by the developer-curators as a weak form of governance. Systemically and textually, democracies are cumbersome, and slow to react to the industrialisation and rearmament programmes seen in totalitarian states. Democracies are also constrained by their innate existence as a “government by the people as a whole” (Scruton, 2007, p. 169). HOI4 Wiki describes democracy as “characterized by a commitment to civil liberties” (SolSys, 2017b). *HolIV* makes extensive systemic attempts to constrict the diplomatic and political actions of the United Kingdom through the simulation as a consequence of the nation’s commitment to liberty (ibid). These restrictions are systemic representations of Britain as a stalwart bastion of liberty. Through traits assigned to democracies as a political ideology, the United Kingdom is heavily limited by in-game action restrictions; it cannot declare war on other democratic nations without a war goal, or occupy territory owned by neutral countries (ibid). Democracies are also restricted by world tension limits; they cannot guarantee the independence of other nations until the statistic reaches 25% and cannot declare war unless it reaches 100% (ibid). In contrast, the German Reich and Soviet Union can perform all these actions without penalty.

It is also difficult to shift the United Kingdom towards an alternative and totalitarian ideology. At the outset of a 1936 campaign, the nation starts with the ‘British Stoicism’ national spirit modifier (AkatsukiEmpire, 2020). This provides the player with a 50% increase in ‘Ideology drift defence’, allowing the nation to be unaffected by other nations exerting ideological influence or promoting totalitarian political ideologies (ibid). The textual description ‘British Stoicism’ quotes text from three stanzas of Rudyard Kipling’s poem ‘If’ (ibid; Kipling, 2000, p. 134). The poem is popularly considered a standard bearer for Victorian values of stoicism (Robinson, 2003, p. 61). The inclusion of the poem produces a deliberate curation of history by defining 1930s British national identity through nineteenth century ideals of stoicism and the stereotypical concept of the ‘stiff upper lip’ (Dixon, 2015, p. 205; Ellis, 2016). The text ties a popular image of the British to a systemic portrayal of a nation strongly committed to democracy. As a consequence, *HolIV*’s modelling of

the United Kingdom is primarily conceived through a curated expression of British democracy as the nation's unwavering ideology.

The British NFT features a number of focuses which reinforce an authentic-lite rhetoric that the United Kingdom was rearming at a slower pace than the German Reich or Soviet Union. There are two branches of the United Kingdom NFT that demonstrate a curated argument that democratic ideology significantly limited the industrial capabilities of the nation: the 'Cryptologic Bomb/Limited Rearmament Branch' and the 'General Rearmament Sub-branch' (AkatsukiEmpire, 2019a). Unlike the immediate availability of events on the German Reich's NFT, economic and industrial focuses on the British NFT are obfuscated under alternative focuses. For instance, 'The Shadow Scheme' focus is steeped in rhetoric which positions the country as falling behind in an arms race. The focus is positioned one layer down on the 'Cryptologic Bomb/Limited Rearmament Branch' and there are specific system prerequisites that must be completed before the focus can be accessed. Most visibly, it can only be chosen once the 'Limited Rearmament' focus is completed (AkatsukiEmpire, 2019a). In chapter 6, the thesis identified how the computations and text associated with the 'Limited Rearmament' focus project curated historical perspectives of British rearmament policies. However, through textually identifying the mobilisation of defence programmes in Europe as "the recent stirrings from Germany and other Fascist powers" this description also interprets the United Kingdom's democratic ideology as unable to compete against the vast rearmament programmes of totalitarian nations (ibid). This is an interpretation borne through popular understandings of British rearmament. Kaiser (1980, p. 175) argues that the British initially refused to take advantage of "the booming arms market in Southeastern Europe". At the beginning of the 1930s, Britain was still hoping to achieve international disarmament compatible with its policy of imperial security (Dunbabin, 1975, p. 588). Yet as the decade progressed, the British government undertook a mandate to rearm; in 1937, Parliament was requested for a £400 million defence loan for rearmament (ibid, p. 600). As a digital game programmed to always produce a version of the Second World War

(Goodfellow, 2016, p. 3), the textual description for the 'Limited Rearmament' focus positions the United Kingdom at an ideological disadvantage.

From its position at the top of the nation's NFT, the 'Limited Rearmament' focus places a specific ideological limitation on the speed at which the United Kingdom prepare for war. Subsequent economic and industrial focuses that expand the nation's armament capacity can only be accessed once this focus is complete. Similarly, 'The Shadow Scheme' focus is held hostage to other system prerequisites that convey a curated sense of British political ideology as weaker in economic and industrial matters than totalitarianism. In order for the focus to be accessible, the United Kingdom must either be at war, or operating in a campaign with a world tension percentage of above 5% (AkatsukiEmpire, 2019a). This is not a massive limitation; the German Reich's 'Rhineland' focus raises world tension by 5% and is typically completed within the first seventy in-game days. However, the significance of these prerequisites rests in how they nominally restrict the player to being able to access the focus only through certain conditions. Through this system design, the NFT projects the partial interpretation that British democracy was slower to react to a potential global conflict than totalitarian states.

The historical description for 'The Shadow Scheme' focus further compounds authentic-lite rhetoric that views democratic nations as slow to adopt a full rearmament policy:

"The Air Ministry has come up with a brilliant suggestion for easier conversion of civilian factories into military ones. With the appropriate grants and loans to various key companies, their factories can be extended and adapted in advance to make the transition to military applications much smoother" (AkatsukiEmpire, 2019a).

This description highlights the argument that the British establishment were increasingly wary of the pace of rearmament (Maiolo, 2012, p. 142). Through its characterisation of 'shadow' government grants and loans to supply industry, the

description determines democracies as beset by administrative and political roadblocks that limited their attempts to prepare for conflict. Furthermore, the focus acutely illustrates the nation's intimate relationship between the public purse and private business. Democracies in *Holliv* are understood as supporting both public and private enterprises in order to prepare for war. The focus is a systemic and textual representation of the role of private 'shadow factories' in the United Kingdom's rearmament. The term was coined in the mid-1930s to describe the unique processes in which aircraft was manufactured (Rogers, 2016, p. 17). Shadow factories were owned by the state but built and operated by private companies; the origins of shadow factories in Britain can be seen in the establishment of agency factories in the First World War (Hornby, 1958, p. 24). Prior to August 1914, military production capacity on the British mainland was small, with only three state-controlled factories in operation (Kenyon, 2015, p. 9). Over 8700 companies and factories produced munitions in Britain during the First World War (Ministry of Munitions, 1918). Only 218 factories were administered by the government's Ministry of Munitions as National Factories (Ministry of Munitions, 1922). Engineering companies trusted by the British government, such as Vickers Armstrong and Cammell-Laird, were given contracts to acquire and produce additional materials (Kenyon, 2015, p. 9). Therefore, the majority of military factories were run by private companies under an agency scheme where the entire construction and running of the premises was funded by the government, and companies paid on a 'cost plus percentage' basis (ibid, p. 12).

A similar scheme appealed to the Conservative-dominated National Government in the 1930s; shadow factories allowed the state to pay and own munitions factories which would be built and operated more efficiently by the private sector (Forbes, 2014, p. 55). Government-led interference in industry would have required direct powers to control skilled labour and executive personnel; senior civil servants such as Lord Weir expressed concerns that these measures would adversely impact upon the economic stability of the country (Weir, 1936). By adopting shadow factories as a component of their economic and industrial policy, the United Kingdom was indebted to private capitalism. The British motor industry was at the centre of the

scheme, and companies such as Austin Motors, Daimler Limited, and Rover Company Limited were crucial in the assembly of aircraft (Rogers, 2016, p. 18 and p. 26). In full production, the shadow factories employed almost 16000 operatives (ibid, p. 19). The British government believed that traditional armament and civilian vehicle manufacturers had the technological expertise to commission and operate these new factories effectively and efficiently without government oversight (Forbes, 2014, p. 70). Therefore, the British government did not seek special authoritative powers to mobilise industry, settling on the creation of shadow factories that would not wholly impact upon the civilian British economy and would be primarily the responsibility of private industry (Dunbabin, 1975, pp. 597-598).

As the consummate democracy in *Holliv*, Britain is not able to change their military output quickly; at the beginning of the 1936 campaign, the nation is guided by the 'Civilian Economy' law, which gives a 30% increase in the conversion speed of civilian factories into military factories (AkatsukiEmpire, 2020). 'The Shadow Scheme' focus systemically models the historical methods by which military production could be increased without sacrificing the nation's political commitment to democracy. The shadow factories enabled production to shift rapidly at the end of the 1930s, from civilian commodities to military goods (Forbes, 2014, p. 55; Rogers, 2016, p. 17). The same processes are systemically reflected through the results of the focus. Upon completion, the player is given four free building slots and four military factories in two states (AkatsukiEmpire, 2019a). However, this computational change occurs immediately only after the country enters a war (ibid). No civilian factories or buildings are replaced by military factories. Instead, the focus instantly gives the United Kingdom additional military factories upon the outbreak of a global war. This is a curated reflection of British political ideology, that the democracy that would not utilise totalitarian methods to alter the economic output of the nation. These designed system processes present authentic-lite rhetoric that the shadow factories were highly successful in switching production rapidly. The computational processes associated with the focus represent significant ideological expressions, created by the developer-curators, that understand the ideological flexibility of the democratic United Kingdom to

instantaneously switch to military production with the help of private capitalism, and without turning into a totalitarian state.

One of the most significant benefits of completing the 'The Shadow Scheme' focus is the activation of the 'Wartime Industry' national spirit. This modifier halves the in-game time it takes to convert civilian factories to military factories (AkatsukiEmpire, 2019a). This change dramatically increases the speed at which Britain can prepare their military capabilities for the coming conflict. This reading of economic and industrial history is an interpretation which argues that democracies, although initially slow to rearm, were quick to transition towards full preparations for war once it became clear that conflict was inevitable. This is a clear demonstration of authentic-lite rhetoric within *HolIV*, conveying historical narratives through both in-game systems and text. The emergence of the 'Wartime Industry' modifier produces a historical claim about the nation's political ideology: in order to match the rearmament and war-preparation programmes of the German Reich, the United Kingdom had become a nation of "liberal militarism" (Edgerton, 2011, pp. 1-7). Instead of sacrificing its democratic principles and issuing totalitarian decrees and state control, Britain transferred into a state of war preparation with the help of the market economy.

The 'Royal Ordnance Factories' focus produces authentic-lite rhetoric on *HolIV*'s perspective on the limitations of democratic ideologies in preparing for war. The description of the focus states, "The Royal Arsenal at Woolwich is woefully insufficient to produce all the munitions and small arms we need. We should establish many more factories around the country, preferably in relatively safe areas" (AkatsukiEmpire, 2020). In the late 1930s, the British government increased the capacity of three Royal Munitions factories to ensure that the nation's armed forces were prepared for a conflict, and to disperse production of armaments and munitions away from major cities vulnerable to bombing (Stratton and Trinder, 2000, p. 102). The description of the nation's "woefully insufficient" preparations highlights the developer-curators argument that democratic ideologies were initially ill-equipped to contest a global conflict. *HolIV*'s system also produces this

perspective. In order to access the focus, the 'Germany: Has completed focus Rhineland' prerequisite must be active (AkatsukiEmpire, 2019a). In combination with the focus description, the game's system presents authentic-lite rhetoric that positions the British as significantly behind Germany's in military preparation for war. Historically, reacting to military arms programmes in Germany, the British government built Royal Ordnance Factories in Lancashire and Shropshire, that would replace the Royal Filling Factory located in Woolwich (Stratton and Trinder, 2000, p. 102). By 1939, Royal Ordnance Factories employed 54200 people; by 1940, twenty-five factories were employing 112268 people (ibid). The game system models this history through giving the player two extra building slots and two military factories in three random states throughout the British mainland (AkatsukiEmpire, 2019a). This is a unique expression of authentic-lite rhetoric that demonstrates the rapid mobilization of munitions and military factories across the nation following Germany's initial rearmament. However, these computations do not identify the specific geographical areas in which these factories were built; *HoIV* illustrates to the player that these factories were significant but does not provide further historical context through the system in attempting to identify the local communities in which the factories were established.

Overall, the 'Royal Ordnance Factories' focus presents a similar curated interpretation to the Soviet Union's 'Move Industry to the Urals' focus, illustrating that the British government were undertaking a similar task to the Soviet Union, by establishing vital military industry away from vulnerable population centres. However, while the Soviet Union's focus does not provide a significant gain of factories, the United Kingdom's focus provides a substantial increase of twelve building slots and military factories in total. In part, this historical expression conveys the economic and industrial significance of private business. The 'BSA Company' focus embodies *HoIV*'s interpretation of British political ideology. The focus description reconfirms rhetoric of the nation falling behind in the arms race against totalitarian states, "The Royal Ordnance Factories are not producing enough small arms, but, like we did in the Great War, we could contract the Birmingham Small Arms Company and expand their capacity" (ibid). The focus is calls upon the

historical trend of the British government utilising private companies which worked for the nation during the First World War (Hornby, 1958, p. 24). By enacting the focus, the United Kingdom is given the 'Birmingham Small Arms Company' national spirit modifier which reduces production cost of infantry equipment by 10% (ibid). The Birmingham Small Arms Company was a private firearms company with an established history in the nineteenth century. It was founded in 1861, and by the beginning of the twentieth century it had gained a national reputation for the quality of its products (Lloyd-Jones et al, 2005, p.153). While the focus is useful in boosting the nation's production of military equipment, *HoIV* proliferates an interesting systemic and textual historical interpretation which undermines the economic power of democratic nations. James Lewis (2020, p. 17) argues that the Soviet Union's Gosplan was never able to compete with the potency and depth of Western market economies. Through the curated design of *HoIV*, it is possible to determine the developer-curators' interpretations on the economic power of centrally controlled totalitarian states against liberal democracies who can leverage private capital in a much more effective way.

HoIV's illustration of the British belatedly undertaking a mass rearmament programme is a key consideration of popular historical literature. At the start of the decade, British defence expenditure as a percentage of Gross National Product was 2.7%; this total reached 5.1% in 1937 and 8.9% in 1938 (Dunbabin, 1975, p. 588; Richardson, 1967, p. 215). The focuses on the economic branches of the British NFT reflect the nation's changing armament programme. Firstly, military focuses such as 'Limited Rearmament' and 'Royal Ordnance Factories' demonstrate the administrative and political roadblocks that forced democratic nations into slower programmes of rearmament. *HoIV* argues that without political support from the population, Britain cannot undertake a mass centralised plan of military expansion. Secondly, as the player progresses through the NFT, and the aggressive actions of totalitarian nations are computed by the simulation, the later economic and industrial focuses become decisively more beneficial in their systemic impact on the British military. These focuses provide significant increases in the nation's production potential, conveying curations of historical narratives that position

democracies as ineffective early mobilisers than authoritarian regimes. The system limitations imposed on democratic nations and the mobilisation of resources place Britain at a comparative disadvantage in the rearmaments race against Germany. These limitations are directly influenced by the developer-curators conception of democracy as a cumbersome political ideology. For instance, popular public support is a significant aspect of democracies. This support can be evidenced through Mass-Observation polling, a project to study British popular opinion that began in 1937 (Hogan, 2015, p. 413). This polling assessed British public opinion on significant events, such as the Great Depression, the abdication of King Edward VIII, Chamberlain's appeasement of Hitler, and the nation's entry into the Second World War (ibid, p. 411). From the 1938 Munich agreement, and the annexation of the Sudetenland, British public opinion decisively shifted from ambivalence, towards widespread public support for a war against Hitler (ibid, p. 420-423) During the first nine months of the war, British commitments to total war policies such as conscription, rationing, mass evacuation, requisitioning and excess profits tax were readily accepted by the population (Harris, 1992, p. 21). British public opinion was a vital concern upon the outbreak of the Second World War (Bell, 1996, p. 33). It was only until British public opinion changed, that the nation held the requisite political capital to undertake a more substantial programme of rearmament and preparing for war.

The Ideological Power of the British Empire in Canada

The NFTs convey curated interpretations on the political power of nations associated with the British Empire. As discussed in chapter 2, the NFTs are significant models of historical determinism. For Chapman (2016, p. 66), technology trees are a persuasive and systemic model of historical development and causality. Within the *Civilization* series, the technology tree system gives the player some form of agency within the game's virtual history space (Munslow, 2007a, p. 6). Even academic arguments that critique the historical potential of digital games inadvertently present the medium as a viable opportunity space for exploring

history. For example, in Alexander Galloway's (2006, p. 104) scathing criticism of *Civilization*, a specific form of historical meaning and representation is still created through gameplay. This argument is evident in Galloway's concluding remarks:

“the more one begins to think that *Civilization* is about a certain ideological interpretation of history...or even that it creates a computer generated “history effect”, the more one realizes that it is about...the transcoding of history into specific mathematical models...“history” in *Civilization* is precisely the opposite of history” (ibid, pp. 102-103).

This is a significant argument which shows that, despite his criticism, Galloway understands *Civilization's* technologies trees as creating systemic and mathematical ahistorical misrepresentations of the past. This argument also important demonstrates that historical digital games project an image of history that is almost always not historical. Despite its perceived historical ‘flaws’, digital games such as *Civilization* simply cannot be considered ahistorical. As this thesis has sought to demonstrate, a digital game such as *Holliv* remains a representation of the past, albeit one which is heavily curated along recognised and established narratives and is selectively deployed in order to fit into a specific computational system. This process is particularly important, given current discourses within historical game studies that consider phenomenon such as ‘historical truth’ and the boundaries of creative storytelling within digital historical representations (Glancy, 2021), the use of counterfactual history in digital games (Grufstedt, 2021), and the precarious balance between ethical game design and the implementation of historical accuracy (Johnson, 2021). In these wider contexts, the role of the developer-curator becomes more pronounced. Digital game visions of history are “transcoded” into systemic models (ibid). Simultaneously, through this process, *Holliv's* historical content is deliberately curated to fit into its overall perspective. The curation of history in digital games accounts for the practical considerations of the product, presenting a specific argument about the past. Similar to Galloway's argument, the partial and curated interpretations within *Holliv's* NFTs should also be conceived as ahistorical. They are a specific and western European product of the twenty-first

century; computational and mathematical curations of the past which are created and designed by developer-curators.

The NFTs of Dominion territories within the British Empire convey partial interpretations of technological determinism. These expressions are emblematic of the curated interpretations of the simulation, reflecting specific arguments concerning the political ideological of democracy. Ashley Jackson (2006, p. 1) characterises the Second World War as an “imperial global struggle”. Through this conception, the collective role of nations within the British Empire is crucial to the success of the United Kingdom. *HolIV*'s broader game system views the Empire through a sense of a community of united nations. *HolIV* contains a ‘technology sharing’ mechanic titled, ‘Commonwealth Research’ (Mister Analyst, 2019b). The Commonwealth nations – Australia, Canada, New Zealand, the British Raj, and South Africa – are bound to a collective system that allows military and industrial technologies to be researched at a greater pace if another nation within the group has already completed that research (Figure 23). This system projects an authentic-lite rhetoric that democratic nations within the British Empire were able to cooperate on technological research as a result of their shared political ideology. This mechanic provides smaller democratic nations within the British Empire a significant systemic boost to military development within a campaign.



Figure 23: Tooltip describing the Commonwealth Research technology sharing mechanic for democracies associated with the British Empire.

Nations that were a component of the British Empire also disseminate interesting arguments of the potency of democratic political ideology in their own unique NFTs from the release of the *Together for Victory* expansion (Steam, 2016a). In particular, Canada’s NFT explicitly conveys the developer-curator’s partial and curated arguments about political and historical ideology (Figure 24). The ideological power of specific Canadian national focuses reaffirms an interpretation of the swift mobilisation of economic and industrial power of the democratic nations in reaction to state programmes of rearmament as seen in totalitarian nations. For example, the ‘Crown Corporations’ focus at the top of the ‘Industrial and Internal Politics’ branch of the Canadian NFT gives the player a 10% bonus to the construction speed of civilian factories, infrastructure, and refineries (Trevok, 2018). The description for the focus states, “To provide essential services and stimulate economic and industrial growth, Canada must create many new Crown

Corporations. Where private enterprise will not step in, the government must". This description, and the bonuses attributed to completing the focus, reconvey the interpretation that an ideological combination of private and public enterprise in shared ownership of industry was useful in preparing democratic nations for war against totalitarian states. Crown Corporations are state-owned businesses (Sexty, 1980, p. 371). They are hybrid entities created to advance certain policy objectives without direct government oversight (Stastna, 2012). The first Crown Corporation in Canada was the 1922 Canadian National Railway Company; the Bank of Canada was also made a Crown Corporation in 1938 (ibid). The inclusion of Crown Corporations within the Canadian NFT presents an interesting curation, as the organisations are not a direct original creation of the 1930s. In contrast, it could be argued that the 'Crown Corporations' focus was added to the NFT to provide a distinct Canadian historical context to the game's image of the Second World War. As an expression of historical context, the 'Crown Corporations' focus is similar to 'The Shadow Factories' focus on the United Kingdom NFT (AkatsukiEmpire, 2019a). These focuses both present an ideological argument that institutional co-operation with the public sector and private businesses was a viable method, distinct to democracies, for economically and industrially preparing for conflict at a faster pace in reaction to the centralised military rearmament programmes of the German Reich.



Figure 24: The 'Industrial and Internal Politics branch' of the Canadian NFT.

Focuses that appear later on the Canadian NFT project determinist arguments about the technological development of democracies. The 'Canadian Pacific Railway' and 'Maritime Colonial Railway' focuses bestow the player with an additional 2 Infrastructure slots to randomly selected states, and 'Imperial Oil' adds a total of 14 units of oil to territories across Canada (Trevok, 2018). The completion of the 'Bits and Pieces Program' focus gives Canada the 'Bits and Pieces Program' national spirit modifier, providing the nation a 5% increase in production efficiency and a 3% increase in production output (ibid). These increases are not insignificant, the collective impact of these individual focuses produces a universally better systemic position for the player. This is a distinct developer-curators reading of the progression of history as technologically determinist. As a model of the epoch, there is no way for the player to progress down the Canadian NFT without substantial improvements to the nation's economic and industrial production.

The collective argument of these focuses reflect a popular conception of the potency of democratic ideals associated to the United Kingdom. Canada benefitted greatly from the British rearmament programmes the 1930s. At The New York World's Fair in 1939, the Canadian pavilion exhibited the "Canada at Work" mural depicting the nation as a panorama of modern resources bound together in a narrative of material and industrial progress (Evenden, 2009, p. 845; Mosquin, 2003, p. 273). In total, Canada produced \$9 billion worth of military equipment and stores, with its industry employing over one million people (Jackson, 2006, p. 63). Canada was not only a nation "rich in agricultural resources, but her industrial and mineral resources have been developed to such a point that she cannot any longer rank as a predominantly agricultural country" (A.J.B., 1941, p. 679). In 1941, over 30% of the nation was thought to be engaged in mining, manufacturing, construction, and general labouring towards the war effort (ibid). From the outbreak of war on 3 September 1939, the British and Canadian governments made advances of \$350 million to assist the expansion of Canadian industry:

"Some 150 new factories are now working or are expected to come into production during this year, the total capital cost of \$280 million being divided as follows: Shell plants \$31 million, armaments \$96 million, aircraft \$15 million, automotive products \$6 million, chemicals and explosives \$87 million, machine tools \$11 million, miscellaneous \$34 million. The total output of these plants in a full year should be able 800 million dollars' worth of contracts placed through Canadian purchasing bodies in 1940, \$689 million were on Canadian account and \$417 million on British" (A.J.B, 1941, p. 681).

Therefore, the overriding rhetorical claims on Canada's NFT demonstrate constant military innovation and industrialisation as the epoch progressed towards conflict. The innate structure of the NFTs of nations such as Canada illustrate a distinct perspective that the economic and political position of democratic nations linked to the United Kingdom universally improved across the epoch. This is a significant demonstration of technological and historical determinism by the developer-curators. Furthermore, the NFT also casts interesting expressions of partial curation of historical narratives. Through system and text, *Holliv's* NFTs create a unique argument that the ideology of democracy, specifically in the case of the United

Kingdom and the British Empire, were politically equipped with the potential power to enact massive programmes of rearmament and national restructuring to engage in a global conflict.

Conclusion

This chapter has examined how the NFTs project curated interpretations of political ideology. *HoIIV*'s simulation of this unique epoch, where three dominant political ideologies competed for supremacy, is systemically, and reductively, distilled into a two-way battle between totalitarianism and democracy. The German Reich and Soviet Union are dually understood through post-war narratives as totalitarian regimes which exhibit more political similarities than differences (Arendt, 2004). Through computational processes *HoIIV* allows both nations to access almost the same range of aggressive diplomatic options, such as invading neutral nations and sending volunteer forces to alternative conflicts, to prepare for war (SolSys, 2017b). These approaches cannot be made by democracies. Through this simplistic computational demonstration of commonality between fascist and communist nations, the simulation offers expressions of authentic-lite rhetoric that misrepresent the stark differences between the political ideology of Germany and the Soviet Union. Instead, these two nations are ideologically countered only by democratic nations, who are greatly limited in their diplomatic options as a consequence of the curated boundaries of the game system.

The chapter offers a comprehensive exploration of how the political ideology of communism, through the prism of totalitarianism, is represented in the Soviet Union NFT. The subsumption of Tuva is illustrated in *HoIIV* as an inevitable event based on the overwhelming power of communist ideology. *HoIIV* does not offer any textual historical context to the annexation. However, its inclusion on the NFT, and the speed at which the annexation of Tuva is completed, demonstrates how the Soviet Union is seen a powerful political force against smaller nations. The chapter also analyses how the Soviet Union NFT dissonantly portrays the impact of political

ideology in the context of the Great Purges. Stalin's personal purge and consolidation of supreme power against any potential enemies of the state, is set by the simulation as a necessary internal disturbance that needed to be resolved before the nation could effectively wage war against its capitalist enemies. Textually and systemically, the NFTs present differing historical interpretations of the Great Purges. For example, there are some systemic penalties associated to completing the 'Great Purges' focus, such as a reduction of the nation's military organisation and the removal of individual military leaders (DeadHeat16, 2020a). However, the game system also presents an interpretation that the Great Purges allowed a new batch of military personnel to take over, giving the player a permanent increase in the speed at which new troops can reinforce other units (ibid). Ultimately, the Soviet Union NFT offers a contrasting image of the Great Purges. The significant abstraction of history in *HolIV* (Goodfellow, 2016, p. 3) results in the NFTs inadequately reflecting the severe societal consequences of the purges. There is no statistical reduction in the nation's population during this turbulent period, despite historical accounts elucidating upon the displacement and death of millions of people. In contrast, the NFT reinforces a perspective that Stalin's political position was sufficiently consolidated as a result of the Great Purges. The event is only viewed as a method of reinforcing political power, rather than being considered in social and cultural contexts. The NFT's subsequent demonstration of Stalin's personality cult reinforces popular narratives that the Soviet population were indoctrinated through political ideology to be prepared to fight a global conflict and sacrifice their lives for the Soviet Union and for Stalin.

By contrasting the economic and industrial focuses of the German Reich and Soviet Union against the United Kingdom, it is possible to determine how the developer-curators present curated interpretations of political ideology. The NFTs convey German totalitarianism as political ideology predicated towards swift economic and industrial preparation for war. In contrast, democracies are cumbersome institutions that cannot prepare for a conflict without significant constraints and limitations. The German Reich's NFT is characterised by expressions of political ideology that are realised through economic policies. The building of popular

people's cars and the autobahn network are pitched as examples of strong outward state propaganda, cultivating an image of German power within Europe. Simultaneously, these schemes are conceived as economic boons to the nation which also contribute towards a clandestine effort of rearmament.

In contrast, the NFT's systemic and textual presentation of democratic political ideology is complex, and often conflicting. The NFT limits the ahistorical options for the United Kingdom by ensuring that it cannot easily change political ideology through enacting an individual focus. However, in its interpretation of British history during the 1930s, the NFT focuses reinforce the view that the nation was not militarily or economically prepared for a conflict. In part, this perspective is highlighted by the location of the focuses on the NFT that produce the quickest systemic effects of rearming. As a component of its position in the simulation as a democracy, many focuses reinforce the intrinsic ties between the nation's free market economy and state intervention. However, these focuses, and their position on the NFT are indicative of an authentic-lite rhetoric that privileges a balanced game system, rather than the historical record. In the case of the Canadian NFT, *HolIV* presents a curated image of historical determinism, where the industrial and economic capacity of the nation as a liberal democracy only improved as the epoch progressed. Ultimately, liberal democracies prevailed in two World Wars. Instead of reflecting the lasting economic and political potency of democracy, *HolIV*'s system and text reinforce an ahistorical view – based in the pragmatism of commercial game development – that democracies were weak and slow to act.

Chapter 8: Conclusion

In its primary object of study and unique methodological approach, the thesis is situated as original interdisciplinary research. The thesis has explored how *HolIV*'s NFTs present partial and curated expressions of the origins of the Second World War from the mid-1930s. The NFTs have been identified as a unique form of technology tree that systemically and textually model the historical progression of the epoch. By examining the contents of the NFTs predominantly through HOI4 Wiki, the thesis has offered a distinct experiment in analysing games without prioritising play and demonstrated a distinctive way of viewing how digital games can diversely convey historical interpretations. This conception of understanding digital games through paratexts broadens out the material object of study for future research. The interpretations bound into the NFTs are uniquely characterised as curated expressions of the past made by developer-curators. Through a deliberate reprogramming of twentieth century popular historical narratives which also considers the pragmatic and commercial ambitions of digital games, curated expressions of the origins of the Second World War – demonstrated throughout the innovative notion of authentic-lite rhetoric – are visibly proliferated to the player.

The NFTs enable historians and scholars of historical games to understand *HolIV*'s "argument about the past" (Chapman, 2016, p. 59). They are a core component of the game's simulation of history. The NFTs project partial and curated historical arguments through authentic-lite rhetoric that consistently position the Second World War as an inevitable conflict. *HolIV* argues that all nations ubiquitously progressed through the 1930s with a substantial programme of war preparations. Through the concept of authentic-lite rhetoric, researchers can take another view of understanding how digital game simulations present representations and interpretations of history, historical narratives, and historical causality. Authentic-lite rhetoric offers an alternative approach that does not only privilege the visual or textual aspects of the medium. As Spring (2015) suggests, and as the thesis's literature review has considered, there is a diverse range of scholarship in historical

game studies that considers the complex relationship between a digital game's representational elements and its gameplay and systems. For instance, Salvati and Bullinger's (2013) development of 'selective authenticity' shares some similarity with authentic-lite rhetoric. Accordingly, the notion of 'authentic-lite rhetoric' is not the first attempt to consider the historical implications and considerations of historical videogame system and text simultaneously. It is differentiated from other terms by its formal definition, and its dual origin points from the work of Bogost (2007, 2008) and Kempshall (2015). The term's overlapping with other perspectives in historical games scholarship does not diminish its validity or unique scope. Yet, as von Lünen et al (2019, p. xv) suggest, "One of the problems facing digital historians is that the computational systems and algorithms operate on logics not often well-suited to historical enquiry". Historians and historical game studies scholars have found it challenging to understand algorithmic history through established theories, such as procedural rhetoric, without accounting for textual components separately. Authentic-lite rhetoric is an effective concept that combats this disconnect through an alternative scope allowing a simultaneous consideration of the historical representations bound into digital game computational procedures and textual data.

This interdisciplinary thesis presents a composite and unique methodology utilising both established and innovative approaches. The NFTs are identified as a significant convergence point of historical interpretation. Through the combination and collision of complex computational processes and textual elements, the NFTs can be interrogated through authentic-lite rhetoric: an concept produced in the NFT's systemic and textual expressions of curated historical interpretation. It is a pragmatic concept that demonstrates an awareness of in-game representations of the past, the lasting influence of popular historical narratives, and the practical constraints associated to designing and commercially releasing a digital game.

Following the thesis as an analytical and methodological experiment, the thesis did not utilise play as a dominant methodology. In contrast, the thesis consulted unique paratextual sources with close associations to *Holliv*. The online archive of HOI4

Wiki is central to the thesis's understanding of how the NFTs present curated expressions. In combination with the notion of authentic-lite rhetoric, HOI4 Wiki represents a hitherto underutilised fan-made and developer-made paratextual source that comprehensively reveals how the systemic and textual interpretations of history in *HoIIV* are disseminated. HOI4 Wiki is a repository that details all the game's textual and computational content to readers. Consequently, HOI4 Wiki operates as an accessible archive that allows digital game researchers and historians to explore the NFT's historical representations without needing to 'play' the game. The thesis's focus on utilising HOI4 Wiki is indicative of its significance as an object of study. Simultaneously, it is an object of material fan culture, and a source that elucidates upon *HoIIV* from outside of the game. By utilising HOI4 Wiki extensively, the thesis broadens out the object of study, illustrating how future scholarship can be conducted on alternate paratextual sources that significantly elucidate upon the historical interpretations of a digital game.

HoIIV's NFTs are created and designed by developer-curators. The concept of a developer-curator builds upon Chapman's (2016, p. 15) established conception of "developer-historians". Through careful selection and deployment of secondary literature and research within digital games, developer-curators convey partial and curated interpretations of the past to players. Every historical representation within a digital game exists as a result of the executive role of developer-curators in determining what will be seen, or played with, by the player. Developer-curators create and curate digital exhibitions of the past through code, visuals, and text. The image and narrative of history disseminated to the player through the NFTs is always heavily curated by the developer-curators through contemporary understandings of digital game culture and commercial practice. As a consequence of these considerations, the historical interpretations present in digital games such as *HoIIV* are significantly curated through the influence of popularly accepted, and typically western, historical narratives that were massively proliferated after the end of the Second World War.

The thesis examines the historical interpretations created through an underrepresented game that has seldom been referenced within current scholarship. *HolIV*, according to its advertising material, is an “authentic real-time war simulation” (Steam, 2016). In this statement, the player is positioned simultaneously as a traveller through the history of the epoch, and an arbitrator of history who possesses the means to shape the past to their will (ibid). In this context, the thesis has identified that *HolIV*’s NFTs curate the origins of the Second World War to fit into an “authentic” simulation that is an inauthentic curation of the past (ibid). *HolIV* is at its most interesting within the historical tension between simulation and representation of history. The thesis approached the NFTs, and the HOI4 Wiki, through three distinct research questions:

1. What is ‘authentic-lite rhetoric’? And how is it produced by developer-curators through the NFTs in *HolIV*?
2. How are partial and curated historical interpretations of the origins of the Second World War visibly disseminated by the NFTs?
3. How can historians and historical game studies scholars establish a framework to explore computational game systems and game text without play or access to digital games?

These questions have guided the research across *HolIV*’s curated interpretations of the diplomatic, economic and industrial, and ideological histories of the German Reich, Soviet Union, and the United Kingdom. It is vital to consider the impact of this innovative research on future scholarship.

The Impact of Authentic-Lite Rhetoric and Developer Curators

Building upon previous scholarship, authentic-lite rhetoric simultaneously considers videogame development practices and textual and systemic representations of history within digital games. The concept is an amalgamation of two distinct theories within game studies and historical game studies scholarship: authenticity

lite (Kempshall, 2015, p. 7), and procedural rhetoric (Bogost, 2007, p. 3). Through authentic-lite rhetoric, the thesis argues that historians and scholars of digital games can determine how computational processes interact with textual components to visibly express curated historical interpretations. The NFTs are significant in-game sites that illustrate and contextualise multiple expressions of authentic-lite rhetoric that are both complimentary and conflicting, producing historical and ahistorical manifestations of authentic-lite rhetoric that position the Second World War as an inevitable conflict. HOI4 Wiki, as an accessible and comprehensive paratextual archive of the NFTs, illustrates how these systemic and textual reflections of authentic-lite rhetoric reinforce an overarching historical interpretation that the epoch was bound to a global conflict. This view is confirmed by literature produced by PDS. Goodfellow (2016, p. 3) argues that in *HolIV*, “World War II will happen”. This statement demonstrates that, although the player is not tied to exactly repeating history, *HolIV* is ultimately curated and programmed to ensure that a global conflict occurs (ibid).

Through a narrative of sequential geopolitical landmark events of aggressive expansion conducted by Germany across the mid-1930s, the NFTs produce authentic-lite rhetoric that situate the nation as solely responsible for the outbreak of the Second World War (Hobsbawm, 1995, pp. 36-37; Rich, 1992, pp. 3-10; Tooze, 2007, p. 1). The innate construction of the German Reich NFT argues that the nation possessed a premeditated plan to conquer neighbouring territory in central and eastern Europe (AkatsukiEmpire, 2020a). Similarly, linked focuses within the NFT reproduce a popular argument through authentic-lite rhetoric that Hitler planned for continuous territorial expansion (Bullock, 1962; McDonough, 2019; Weinberg, 1970). Germany’s chained historical focuses allow the nation to sequentially remilitarise the Rhineland, and diplomatically annex Austria and the Czechoslovakian Sudetenland (AkatsukiEmpire, 2020a). The remilitarisation of the Rhineland on 7 March 1936 is understood by the NFTs, and *HolIV* more broadly, as the starting point at which a global conflict became totally inevitable (ibid). Upon completion of the ‘Rhineland’ focus, by giving the player the ability to move troops onto the border of France within the simulation, the NFT systemically reinforces

authentic-lite rhetoric that remilitarisation was a significant step towards a European conflict.

Authentic-lite rhetoric expressions also form curated interpretations of historical development and progression. The Anschluss of Austria on 12 March 1938 and annexation of the Sudetenland on 30 September 1938 can only be enacted if the player has successfully remilitarised the Rhineland (AkatsukiEmpire, 2020a). Therefore, through authentic-lite rhetoric, the remilitarisation of the Rhineland is set as the start of a significant chain of causal events that saw Germany strip away any political, diplomatic, and military restrictions placed on it as a consequence of the conclusion of the First World War. The entire German NFT reconfirms popular conceptions that the origins of the Second World War can be found in the nation's sequential dismantling of the terms of the 1919 Treaty of Versailles (Roberts, 2009, p. 3; Sharp, 2011). Through this distinctly German-centric narrative of aggressive expansion through 1936 to 1938, the passive role of the United Kingdom is also considered. Through *HoIIV*'s system and text, Britain is constrained by the developer-curators conception of democracy and appeasement. The nation is viewed as politically reluctant, and often unable, to conduct any pre-emptive diplomatic action against Hitler. These curated system limitations are public depictions of authentic-lite rhetoric that illustrate the ineffectiveness of appeasement against the German Reich.

The thesis also illustrates how the economic and industrial histories of the German Reich, Soviet Union, and United Kingdom are distinctly expressed through authentic-lite rhetoric. *HoIIV* is predominantly a simulation of logistics and industry. Through centralised planning, self-sufficiency, and rearmament, the NFTs produce unique expressions of authentic-lite rhetoric which argue that, as the period progressed, nations improved their economical and industrial capability in order to prepare and participate in a future conflict. Through the Five-Year Plan and Four-Year Plan, the Soviet Union and German Reich adopted centralised economic and industrial planning during the 1930s. These plans were distinct in their political scope, but both were created for the same outcome: preparing for a military

conflict between European nations. Through authentic-lite rhetoric, the Soviet Union's Five-Year Plan is given primary significance to its economic and industrial history across the epoch (DeadHeat16, 2020a). By enacting the Five-Year Plan in *HolIV*, the industrial output of the nation increases within the simulation, systemically illustrating a curated argument that the centralised plan was crucial in developing the nation's economic and industrial capacity. However, in this conception of Soviet Union economic history, the NFTs do not consider the severe societal impact of the Soviet Union's overly ambitious planning projects on the populace.

The importance of the concept of autarky and industrial self-sufficiency is also modelled in the NFTs of the German Reich and Soviet Union. In this context, a universal expression of authentic-lite rhetoric is produced: in order to effectively wage a war, raw materials and industrial resources needed to be secured to ensure there would be no materials shortages during a coming conflict. The German Reich's NFT presents the concept of autarky as successful, producing more resources within the nation and offering significant increases in statistics such as the speed at which the nation can research new technologies (AkatsukiEmpire, 2020a). However, these positive systemic effects are in conflict with accepted historiography which understands that autarkic measures were limited in their success and potency (Epstein, 2015, p. 100). This disconnect between *HolIV*'s systemic effects and accepted historical narratives is a reflection of authentic-lite rhetoric where the pragmatic design considerations of digital game production are privileged over an authentic representation of the past.

While *HolIV* presents the German Reich and Soviet Union as quick to centralise and coordinate their economies and industries towards rearmament and war, the game does not produce the same argument for the United Kingdom. The British Empire is a central concern for the nation. Many of the focuses on the British NFT prioritise the health and security of the Empire above the nation's own ability to participate in an inevitable conflict. Furthermore, the British NFT is uniquely structured so that significant increases in economic and industrial might cannot be accessed until later

points of a campaign. This is a systemic reflection of authentic-lite rhetoric that interprets democratic nations as unable to leverage the machinations of the state towards a full programme of rearmament and economic and industrial preparation for war without the tacit support of the electorate or the government. Yet, as the United Kingdom NFT progresses, individual focuses become more significant in their systemic impact and the increases they bestow to the player. This curation of history projects an image of the nation significantly undertaking large-scale economic projects with an emphasis on supplementing minimal public investment with private capital. From this perspective, authentic-lite rhetoric expresses the United Kingdom as able to conduct a significant programme of industrial rearmament by the later years of the 1930s, in response to the economic and industrial policies of the German Reich and Soviet Union.

As a form of technology tree structure that, by design, simulates the progression of technologies (Ghys, 2012), the NFTs are distinct structures of historical progression that allow nations to statistically improve over time. However, through a curation of historical narratives, some nations can improve more quickly than others. The NFTs play a crucial role in conveying a larger narrative of historical determinism during the period, and its use of political ideology is a cornerstone of this perspective. The developer-curators present Germany and Soviet Union as similar totalitarian states; a conception built upon discourses surrounding comparisons between the regimes (Arendt, 2004). Despite the differences in the political ideology and identity of both regimes, *HoIIV's* computations treat them similarly, allowing them to conduct a slate of territorially and politically aggressive acts. In contrast, the democratic United Kingdom is constrained by systemic limitations produced as a consequence of the nation's liberal political ideology. This computational curation produces a significant expression of authentic-lite rhetoric that conveys democratic nations as less effective at economically and politically preparing for total war than dynamic and powerful totalitarian nations. This is a highly partial and curated conception of political ideology that discards the lasting impact of democracies in the twentieth century as dynamic political structures of wealth and industry. As a consequence of these computations through the notion

of authentic-lite rhetoric, the NFTs present an argument that the Second World War – or a version of the Second World War – was an inevitable conflict. The innate structures of the NFTs are highly deterministic, flowing towards greater industrial and military capacity because of the entire game’s systemic logic that a war is going to occur. Chapman (2021) suggests that the possibilities of narrative freedom in strategy games “contribute to the historical strategy genre’s important destabilisation of the notion that history is entirely predetermined...they emphasise that historical outcomes are not necessarily pre-determined, instead highlighting the role of contingency in what happened in the past”. Yet, in contrast, far from just offering an opportunity to engage in war, *HoIIV* is a digital game which is pre-determined to escalate into a war. The NFTs in *HoIIV* argue through a strong deterministic lens that the eventual inevitability of the Second World War is the cause of every diplomatic, economical, industrial and political change. Through their structure, contextualising historical text, and computational outcomes, the NFTs are hardcoded to showcase that every nation is preparing to wage a war. Through the notion of authentic-lite rhetoric the thesis has demonstrated how the economic, ideological, and military aspects of the NFTs reaffirm this perspective consistently.

Throughout its argument of demonstrating expressions of authentic-lite rhetoric in *HoIIV*, the thesis has also exhibited the alternative notion of developer-curators. While it is recognised that developer-historians (Chapman, 2016, p. 15) curate and editorialise the past through terms employed by historians, the moniker of ‘developer-curator’ offers another perspective, understanding how the creation of historical content and interpretation within a digital game is primarily a human endeavour in the curation of secondary accounts and literature. In the curation of this secondary and well-established literature, the developer-curators produce partial and editorialised perspectives of the past, and the ways in which the past happened. Developer-curators significantly reprogramme accepted secondary historical narratives into game code and contextualise this narrative through text. This process, that is seen extensively within *HoIIV*’s NFTs, ultimately produces expressions of authentic-lite rhetoric which argue that totalitarian nations and

figureheads were the propellant catalysts of an inevitable conflict. The thesis considers digital game structures, such as the NFTs, as public exhibitions of popular history. The contents of this digital exhibit are created and defined by developer-curators, who deliberately determine the historical narratives and themes to best fit into the systemic processes that the player encounters. The thesis's notion of curation is vital for envisaging broader digital game representations of history as always editorialised and managed by developer-curators.

The Impact of HOI4 Wiki and 'Not Playing' *Hearts of Iron IV*

Methodology is a core focus of the thesis's original contribution to scholarship. While the thesis has focused on *HoIIV*, the game is simply a conduit for an innovative approach that views and understands digital games and digital game culture through divergent means. As a methodological experiment into not-playing *HoIIV*, HOI4 Wiki is central to this unique understanding. As of writing this thesis, *HoIIV* is a relatively simple game to access through online storefronts and distribution services. In a related context, by allowing players to redownload older iterations of *HoIIV*, PDS make playing older versions of the title possible, unlike many game development studios and publishers across the industry. Yet, through its examination of the NFTs, the thesis demonstrates how the online archive of HOI4 Wiki is a highly significant collection of all in-game data related to the game's NFTs that provides a detailed source base to explore the nuances and limitations of the game's depictions of the past and of an imagined past. The vast majority of the game's current content is available within the wiki. Furthermore, through its archival of older iterations of the game and the wiki, HOI4 Wiki also elucidates upon older variations and iterations of *HoIIV*, illustrating how the title's historical interpretations have changed across its lifespan. The thesis examines and explores *HoIIV* predominantly through the HOI4 Wiki, demonstrating how research on the historical content of digital games does not need to be focused on the experiences of the author interacting with the game object directly. Instead, the thesis illustrates how paratextual material culture can significantly elucidate upon how

videogames convey the past, and the interesting reinterpretations of history that occur within the computational interplay between a historical game's systems and text.

HOI4 Wiki represents an archive that is updated on a regular basis by both fans and developer-curators. HOI4 Wiki comprehensively illustrates visual images of the NFT structures, the historical context associated to each focus, and the systemic consequences of a focus being enacted. This collective and cooperative approach to archiving all the textual, visual, and computational historical interpretations within the game presents a reliable repository for researchers and historians to explore the content of the title without needing to access the game directly. Furthermore, in its inclusion of patchnotes and developer diaries, the HOI4 Wiki stands as a significant archival apparatus for examining how *HoIV* has evolved across its development from an unreleased product, to a digital game that has been available to purchase for almost exactly five years. Through HOI4 Wiki, the developer-curators are shown to express authentic-lite rhetoric through the systemic and textual properties of the NFTs. Incorporating HOI4 Wiki into the thesis's methodological approach broadens out the object of study. This has a significant bearing on future researchers of history in digital games; far from simply utilising the game directly, historians and researchers must also consider how material culture associated to digital games impacts upon how historical interpretations are translated to the player outside of their playing experience.

By consulting HOI4 Wiki as a dominant paratextual source, the thesis provides alternative perspectives on play as a methodology. As an analytical experiment, the thesis turns to HOI4 Wiki as a primary site and artifact of historical interpretation. Across the research, paratextual materials provide an approach to intimately access the historical interpretations of the title that does not require the function of play. Aside from HOI4 Wiki, the thesis has employed a diverse range of paratextual materials, such as online forums and online videos of gameplay. The thesis's use of developer diaries from PDS is also significant, as these are vital resources – underutilised by current scholarship – which act as public declarations from

developer-curators that explicitly illustrate and attempt to explain the game's systemic and textual design, offering pertinent analysis of which historical data was considered significant for inclusion.

Play is a foundational tenet of contemporary game studies (Huizinga, 1955; Caillois, 2001; Sutton-Smith, 1997). However, the thesis offers a methodologically experimental study into studying the historical representations of a digital game without the use of play as a dominant approach. In the choice of this methodology, the thesis does not disparage or discard the legitimate theory of play. In contrast, the thesis understands that play is an action with limited use in a period of contemporary history where our access to digital games is continually at risk (Newman and Simons, 2020; Simons, 2021). Against an overwhelming tide of game studies research that strongly advocates for playing a digital game in order to understand it (Aarseth, 2003, p. 7; Anable, 2018, p. 3), the thesis demonstrates that play does not need to be an essential methodology in order to view a title's historical textual and systemic content. By placing HOI4 Wiki as the central source for in-game information on *HoiIV*, the thesis offers scholars an alternate material arena of knowledge, and an approach for engaging with a digital game that does not require direct access or the function of play. This methodological perspective is influenced by game preservation studies, and the alarming notion of restricted or limited access to digital games is useful for future game studies and historical scholarship to seriously consider how we can continue to study these morphos objects. Through game preservation studies, game and gameplay preservation is often considered as an optional goal (Newman, 2012, 2018; Swalwell, 2017). As older digital games become more difficult to access, or even become inaccessible, it is useful for researchers to broaden out their perspective to consult a range of documents which alternatively elucidate upon the game. In the specific case of the HOI4 Wiki, this source elucidates upon the systemic and textual components of *HoiIV*'s NFT that project curated historical interpretations without requiring the researcher to purchase a copy of the game, and a system to play it on. This cost is a significant barrier to entry, and it is useful to consider how research can account for, and ultimately reduce, these barriers to participation.

The thesis's experimental methodology of primarily utilising HOI4 Wiki is also useful for conceiving of how *HolIV* is not a static object. Between 2016 and 2018, the game's historical content has significantly altered. Additionally, as expansions and patches have been incorporated into the game, the NFTs have been expanded to include a broader range of historical interpretations and ahistorical alternate histories. As a consequence, the representations of the epoch that were present in the original release of *HolIV* have been subject to significant changes. In one sense, this variation of historical content reminds researchers that the medium is instable. In a perspective that presents the successes of not playing *HolIV* as the dominant method to understand the game's relationship with portraying a historical epoch, subsequent changes to *HolIV*'s historical content across almost six years cannot be easily accessed in-game and played. Without the additional work of PDS in allowing players to re-download older iterations of the title through online storefronts – a practice that is not universally adopted throughout the games industry – it would be even more difficult to directly access and play the historical representations of *HolIV* from its original release in 2016, or the systemic and textual changes of its subsequent expansions throughout 2017 and 2018. It is no small fact that our continual playable access to digital games is contingent upon the work of developers and developer-curators. If this work is not done, playable access to digital games becomes starkly at risk amid the murky legal ramifications of emulation (Simons, 2021, p. 77). Consequently, the significance of not playing the game and instead strongly examining HOI4 Wiki rests in its existence as an available and open online archive of all the game's different systemic and textual expressions of historical curation. This is highly significant when considering the ubiquity of institutional and fan made online preservation projects that record and preserve online materials (The National Videogame Museum, 2021), and there has been significant progress made with online preservation in the United Kingdom with the Non-Print Legal Deposit Regulations 2013 that permits the British Library in taking a copy of websites and social media without first seeking permission (Simons, 2021, p. 77). Ultimately, the use of HOI4 Wiki reinforces that the game's ever-changing perspectives can be consistently accounted for by this useful source. By consulting

HOI4 Wiki as a primary archive, researchers eliminate the potential danger for diminishing access when attempting to directly study, or understand through play, an instable digital object that changes frequently over time. Through highlighting the significance of HOI4 Wiki, the thesis fundamentally broadens the object of study to encompass material game culture that exists outside of *HoIIV* directly.

Avenues for Future Research

There are many future opportunities for research that can build upon the thesis and its unique methodology to further explore partial and curated historical interpretations within digital games and their paratexts. For instance, by exploring the NFTs of three nations in *HoIIV*, the thesis has excluded curated expressions of authentic-lite rhetoric which are present in the NFTs of other nations. The author has already undertaken peer-reviewed research examining how curated interpretations of history in the mid-to-late 1930s are created within Japan's NFT (Pennington, 2021). This research identifies how *HoIIV*'s depiction of Japanese history during the late-1930s is intrinsically set upon popular narrative assumptions inherited from European perspectives of the decade and the Second World War (ibid).

The thesis has set its own boundaries in exploring *HoIIV*'s NFTs between its original 2016 release and version 1.5 in 2018 (Steam, 2016; 2016a; 2017; 2018). Between 2018 and 2021, three significant expansions have been released (ibid, 2019a; 2020; 2020a). Consequently, these expansions have further altered the curated historical interpretations incorporated into *HoIIV*. Future studies utilising the game could explore how new expressions of authentic-lite rhetoric have been created within the systemic and textual content of these subsequent expansions. By consulting the HOI4 Wiki to undertake this work, it would be instructive to see how, across the entire five-year lifespan of *HoIIV*, curated expressions of the origins of the Second World War have evolved. Similarly, future scholarship could consider

computational and textual reflections of authentic-lite rhetoric within the game's multiple systems that exist outside of the NFTs.

Alongside the centrality of HOI4 Wiki, the thesis has also employed an extensive and diverse collection of paratextual sources. In line with perspectives that understand our diminishing access to digital games (Newman, 2012), online forum conversations and YouTube videos provide fruitful opportunities to study the historical content of *HoIIIV* without play. The thesis also provides a restricted collection of oral history accounts intended as supplementary materials. The personal insights of Lind and Kuiper from PDS were highly instructive (Pennington, 2018, 2018a; 2018b). Yet, collecting these insights was an inefficient and time-consuming task predominantly caused by a series of logistical issues. Both individuals were located in Stockholm, and at the time of data collection, they were also busy working on other PDS projects. As a consequence of these barriers, the thesis could only gain limited insight from these oral history accounts. Future scholarship could conduct a more extensive oral history project from a broader range of PDS employees. This method has been employed effectively by Grufstedt's (2020) ground-breaking research on counterfactual history and game design practices in *EUIV* and *HoIIIV*. Although the thesis is not an oral history project, future research could engage more comprehensively with oral history testimonies, and offer first-hand accounts of the developer-curators and their perspectives on the curated and partial expressions of history in digital games. Understanding how developer-curators identify their own historical interpretations and assumptions would be useful research towards a better conception of how historical narratives and arguments are created in the game's system processes and text.

Videogames are disappearing (Newman and Simons, 2020, p. 3). Yet, at the time of writing, there is still opportunity to engage in playing *HoIIIV* through a multitude of online storefronts and digital distributions services. Within this context, it is worth considering the limitations of not playing *HoIIIV* as a methodology. As previously stated, the thesis does not diminish play as a methodology. Instead, the work offers an alternative perspective on how historians and game studies scholars can interact

and study digital games without play. The thesis is limited in offering analysis on how the NFT's myriad computational and textual components are interacted with during a playthrough. Similarly, the thesis does not provide an analysis on how directly accessing and playing with *HolIV* produces a 'feeling' of interacting with an intentionally curated history or counterhistorical scenario. In acknowledging these limitations, as well as reconsidering the successes of not playing and focusing on the historical potential of online wikis and other paratextual sources, future studies do not need to avoid play as a methodology. Subsequent research into the historical representations of *HolIV* can be considered extensively with both play and paratext as a part of a composite methodology that still highlights the necessities and urgent of game preservation, whilst also indicating how historical representations, interpretations and curations are intimately 'felt' and played with by the player.

Final Remarks

In conclusion, the thesis has offered a fresh interdisciplinary contribution to history, game studies, and historical game studies scholarship. It has presented how the innovative concept of authentic-lite rhetoric transmits curated historical interpretations through both digital game system and text. In its unique conception of developer-curators, the thesis understands that the creation of historical representations in videogames is predicated on a simultaneous consideration of digital game development and commercial realities, and an appetite to programme and provide historical entertainment to audiences. Through this pragmatic consideration, developer-curators display historical assumptions and narratives in to produce authentic-lite rhetoric expressions of the past that are often as much ahistorical and steeped in counterfactual scenarios as they are historical.

In stressing the centrality and significance of *HOI4* Wiki, the thesis presents an innovative approach for viewing a digital game's systemic and textual historical representations. As a unique hybrid paratext that is contributed to by fans and by

developer-curators, HOI4 Wiki offers an accessible and reliable arena of enquiry. HOI4 Wiki broadens out the material object of study, reflecting on how digital games can also exist outside of the game. When historians and scholars of digital games approach a title, they must also consider how its material and ephemeral paratexts also convey how the game system and its text produce divergent representations of the past.

Within scholarship on the representations of history in digital games, discourses consistently dissect the medium's inaccuracies or justify the value of a videogame's portrayal of the past. In discussions surrounding the pedagogical implementation of historical games, the medium's limitations loom large (Clyde, Hopkins and Wilkinson, 2012; Kee et al., 2009; Morgan, 2013). However, digital games are not a source of uncontested historical accuracy. They are distinct products of contemporary popular culture that also embody historical and their partial curations of history make them interesting, producing fictional histories or interpretations of history that still possess a degree of authenticity. *HoIIV* simplifies a dynamic and evocative historical period for entertainment purposes (McCall, 2012, 2016). As this thesis has demonstrated, the notion of authentic-lite rhetoric accepts the fallibility of digital games as inconsistent disseminators of accuracy and reaffirms them as purposeful curations of partial historical knowledge. *HoIIV's* overriding expression of authentic-lite rhetoric understands the Second World War as an inevitability. Every focus on the NFTs is governed by a dual central purpose: to instigate a global war during the epoch and to improve the player's statistical position within the simulation. The ideological tension in how *HoIIV* simultaneously reflects historical and player progression produces decisively partial and curated claims about how the conflict began. Ultimately, the NFTs are unstoppable engines of causality, and they always bring the player to the outbreak of a Second World War.

Notes on the Bibliography

There is no standardised citation practice for videogames. Nathan Altice (2015, pp. 333-341) provides foundational research on the instability of digital game citations, arguing that a unified practice on a “videogame bibliography” does not exist. This is a persuasive argument bolstered by a lack of consensus on whether a ludography is even a useful citation tool. These arguments are further obfuscated by academic contention on what information is prioritised within a “videogame bibliography” (ibid, p. 334).

Research on digital game citation is an ongoing topic of discussion. At DiGRA’s 2019 conference in Kyoto, multiple papers were presented on citation and referencing practices (Frome and Paul, 2019; Gualeni, Fassone and Linderoth, 2019; Grabarczyk and Aarseth, 2019). Researchers are beginning to understand the bibliographical consequences that arise from the ephemerality and instability of digital games. As Altice (2015, pp. 334-336) argues, the bibliographical flaws inherent in current research represent failures to account for different variations of digital games. Specifically, bibliographical references have failed to answer fundamental questions surrounding authorship, materiality, and the declared use of emulators in order to play digital games made inaccessible through other means (ibid, pp. 334-336). This ongoing discourse cuts to the core of academic game studies, demonstrating to the entire discipline that digital game variations have been previously overlooked and undervalued. However, by identifying different versions of videogames, researchers can more effectively answer questions that are fundamental to the discipline, such as ‘what even is a digital game?’.

Videogames are not static. They are evolving entities that individually possess different variations, iterations, and revisions; commercial products that are constantly updated, patched, ported, re-released on new platforms, and engineered onto emulators (Newman, 2018). Digital games are innately imprecise and instable. Consequently, disciplinary attempts to reference and cite digital

games have also been imprecise and instable. The thesis has approached this significant bibliographical faultline through the notion of specificity. By adopting the referencing concept of Gualeni, Fassone and Linderoth (2019), the thesis can bibliographically record the different versions of *HoIIV*. This functionality of reference privileges *HoIIV* as an morphos, instable object that conveys changing historical perspectives within its changing system and text. The thesis' referencing style attempts to contribute to current citation discourses by identifying significant metadata and fields that should be recorded.

This specificity of reference extends to the bibliographical hierarchy of sources. The thesis presents HOI4 Wiki as a significant source base for presenting a comprehensive systemic and textual understanding of *HoIIV*'s NFTs. Through the centrality of HOI4 Wiki, the thesis adopts a unique way of seeing *HoIIV* that is not overtly reliant on accessing in-game contents first-hand. Consequently, the bibliography privileges digital games and HOI4 Wiki sources before alternate primary and secondary sources. This order does not diminish the importance or usefulness of these other sources. Rather, it is an affirmation of how *HoIIV* and HOI4 Wiki are wholly central to the thesis's consideration of how history is interpreted in digital games.

Collectively, discourses on videogame citation are focused on resolving how researchers can classify the exact version they are examining, and account for these differences through identifying the metadata that should be recorded in a bibliographical reference. This work has been an important long-term consideration within game and gameplay preservation research (Newman, 2012; 2018). However, game studies can learn from similar bibliographical discourses occurring within established disciplines. In particular, citation practice is central to literary studies discourses that classify different editions of books and identify different print iterations, and categorisation (Bowers, 1952, p. 202-203; Ozment, 2020). However, more research into the intricacies of citation is needed to produce a universally accepted referencing style. In order to propel the study of historical digital games, researchers need a thorough, thoughtful, and consistent process for bibliographical

references. Until these discourses are more common, the citation of digital games will continue to be a significant arena of contention.

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Appendices

Appendix 1: Questions for Dan Lind 1: Email Questionnaire. 20 January.

Question 1: How has traditional tabletop wargaming influenced the development of Hearts of Iron IV?

Answer: Axis and allies was a huge inspiration for the original hearts of iron, there was also some inspiration from world in flames.

Question 2: Do many of the team come from a background of casual or competitive wargaming?

Answer: The majority do not, although there are several with the interest.

Question 3: What differentiates the Hearts of Iron series amongst alternative digital and analogue wargames?

Answer: The big difference between HOI and other ww2 strategy titles is the focus on the high level and that it is not just about manoeuvring units etc. You run the whole country: diplomacy, production of equipment and vehicles, research etc.

Appendix 2: Questions for Dan Lind 2: Email Questionnaire. 25 February.

Question 1: Do YouTube playthroughs of HOI4 make a significant impact on future developments? Is there a close dialogue between the development team and video content creators?

Very often yes! I will get feedback both as videos and emails etc, and often ask what they think about certain things. Several hang out at events with us as well and we usually have discussion sessions then.

Question 2: Does the HOI team keep a record of different development stages of the title? Such as a hard-drive of patchnotes or previous earlier versions of the game.

We use version control, so keep logs of every single change since the first line of code was written. We "tag" releases and important milestones to be able to easily find them if we need to.

Question 3: Is it important that previous versions of the game, inaccessible to the public after patches have been installed, are archived?

Yes. Often its useful to be able to go back and compare if a behavior has changed or the like. Note that we do actually have all public releases available as opt-in on steam. So you can go back to 1.2 version say as a player if you want.

Question 4: As a developer and a designer, what are your intentions behind creating HOI 4? Is there something significant or specific that you want to illustrate by creating and further developing the title?

Thats a tricky question! I will see if I can articulate myself in the little time I got now. HOI4 for me initially had the objective to prove that WW2 strategy games could be approachable and easy to pick up and play. Of course this is relative and I compare it with our other titles at the time, but I think this has succeeded by a wide margin. I never dreamed we would manage to get so many players (HOI4 always has over 100k unique player playing it every day and around 450k every month. i cant really give out sales numbers though so you have to guess those). Secondly I wanted to make a WW2 game that put a lot of focus on the equipment and production aspects, something I am personally very interested in. I think it also lives up to this. Right now my goal for HOI4 is twofold: 1) See how far we can take alt-history gameplay opportunities for players and 2) Iterate on core mechanics to better and better represent the historical war (for example, while the supply system essentially does what its supposed to it is so simple and non-interactive that it doesnt really immerse you in the historical problem of supplying and feeding an army).

Question 5: Do differing members of the team have drastically different views on the supposed intention of the videogame?

Sometimes for sure. Its an important part of my job as game director to make sure we all try to follow the same vision. Usually when things differ it will be discussion about history, alt-history and plausibility in behavior in the game.

Appendix 3: Questions for Drikus Kuiper: Email Questionnaire. 1 February.

Question 1: Of the many examples, which HOI4 game mechanic do you think best incorporates and represents a history of WW2?

Answer: This would definitely be the 'production lines' mechanic. Though it is by no means perfect, it goes a long way to illustrating the importance of industry to the war. Simply by showing the discrepancy of industry available to the different nations it becomes very clear which situation the Axis found themselves in, and why they ultimately lost the war. Add to this the resource needs (though it discounts considerations such as fuel), and it becomes even more clear why these governments experienced the need to conquer, and why they eventually could not keep up their fight with the Allies.

Question 2: Would you agree that it is more straightforward to play 'aggressively' as a Communist or Fascist nation because of the historical influence of these prevailing ideologues in the period 1936-1947?

Answer: For fascist nations an aggressive playstyle is definitely more straightforward. The historical context is one of using military power and diplomatic guile to expand their influence in neighbouring countries, and their inferior economic position meant it was imperative to secure resources and industry from these neighbours, both to secure their internal politics (as the ideology built heavily on nationalist pride and racial superiority), as well as securing their global position. I'm not sure if it should therefore be called 'historical influence', but rather 'historical context'. However, it is definitely so that these ideologies historically showed expansionist tendencies and that this is what history remembers them for, particularly in this period. Hence, the game clearly tries to model this.

Question 3: On a wider note, I would love to know how you feel about the use of HOI4 for educational purposes?

Answer: I believe the game could well be used for educational purposes, but only for select aspects of WWII. The main aspect is the one that I mentioned earlier; the production lines and the disparity between the Axis and the Allies in terms of industry and natural resources. The situation in the game, though by no means a perfect representation, clearly illustrates that the democracies had 'everything to lose', and that the Axis had 'everything to gain' in another war. General ideological tendencies could also be shown via the game, but these are 'hardcoded' in the game and not a natural-borne causality as the resource-mismatch-to-conquest is.

Question 4: Related to this; do you think that, from developer or public multiplayer events, that the act of playing of HOI4 in real-time with other people can also be beneficial to our wider understanding of inter-war/ WW2 history?

Answer: A clear and resounding 'yes'. If you don't mind my broadening the answer to encompass Paradox games in general, I think these games in general do so in a myriad of ways. They are games, so they are not a completely correct representation of the historical situation, but usually the games are close enough to provide a believable approximation. Taking control of these nations in our games makes the player understand the historical situation these countries found themselves in, and I find it amusing to note that, for instance, players of England/Great Britain in EU4 multiplayer games have a tendency to always play the 'balance of power' game, remarkably similar as they did historically... Furthermore, these games provoke an -interest- in the player to learn more about the period, and this is probably their biggest contribution. Internally in the company we consider this one of our games' fundamental pillars; that they deal with topics one can 'nerd out about'. The games cause people to -want- to learn more about the period, and this indirectly results in an improvement of our understanding of the period.