

Digital Frontiers: The Polar Regions and Popular Geopolitics in Video Games

Erdem Lamazhapov ^{1,2} 

¹ Department of Political Science, University of Oslo, Norway

² Fridtjof Nansen Institute, Norway

Correspondence: Erdem Lamazhapov (elamazhapov@fni.no)

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Abstract

Video games have emerged as a significant domain of popular culture, offering an excellent arena for analyzing popular geopolitics. Meanwhile, the polar regions occupy a marginal position in global geopolitics, yet they play an important role in geopolitical narratives. By connecting the literature on critical geopolitics and studies on ecocritical games, the current research examines how the polar oceans are portrayed as geopolitical frontiers across various video game genres, including strategy, adventure, and survival horror. It explores how video games produce and reproduce popular geopolitical imaginaries of the polar regions amid a global polycrisis. Drawing on the concept of governmentality, this study also analyzes how different titles encode state-centered, extractive, and colonial logics as well as alternative decolonial perspectives. We argue that video games both mirror and shape public understandings of polar geopolitics: They naturalize administrative, utilitarian views of the poles while also offering spaces in which to critique coloniality and imagine alternative relations to environment and governance.

Keywords

Antarctic; Arctic; climate change; governmentality; Indigenous; popular culture; popular geopolitics; strategy games; survival horror; video games

1. Introduction

Oceans are central to all life and, being core to human life as well, feature heavily in all human activity. They are also a domain of geopolitics, with nation-states reimagining maritime spaces and drawing boundaries on the seabed (Østhagen, 2022). As described in the editorial of this issue of *Ocean and Society*, oceans are a site

of a global polycrisis—a concept used to refer to an extremely harmful emergency, an “entanglement of crises in multiple global systems” (Lawrence et al., 2024, p. 2). An especially acute polycrisis affects the polar regions as part-land and part-ocean spaces. These regions have traditionally been understood as “exceptional spaces” because of both their ecosystems and their size, location, remoteness, and the radical difference from the way that political, legal, and economic control is exercised there (Dodds & Nuttall, 2016). Thus, the polycrisis in the polar regions is not only an ecological one, where the accelerating cryospheric collapse driven by climate change and biodiversity loss threatens these regions as we know them, but also a geopolitical one, with an ever-increasing scope of economic activity and great power rivalry.

Geopolitics is not a neutral description of fixed geographical or political facts but a specific way of viewing the world. It is therefore a set of representations, discourses, and practices that narrate and create geopolitical spaces (Powell & Dodds, 2014, pp. 8–10). Research on critical geopolitics has examined geopolitical discourses as the ways in which spaces are imagined and recounted (Dodds et al., 2022). Such discourses can be divided into three registers: formal, practical, and popular geopolitics (Dodds et al., 2022; Tuathail, 1999). Formal geopolitical discourses refer to theories about how geography determines, shapes, or influences international politics. Practical geopolitical discourses refer to representations of geographical spaces by policy practitioners like political leaders. Finally, popular geopolitical discourses are representations of geographical spaces in culture, especially popular culture. If the literature on critical geopolitics explores how spatial and geographical imaginaries are mobilized to construct taken-for-granted ideas about international relations, then that on popular geopolitics examines how these geopolitical narratives saturate popular culture (Dittmer & Dodds, 2008). As a regular and important part of that culture, video games are a significant avenue through which to investigate popular geopolitics (Neumann, 2018, p. xiii).

In such a context, video games are complex discursive representations. They are computational processes (Bogost, 2011), but they can also be read as texts (Chang, 2019, pp. 25–41). Rich ecocritical game scholarship has critically examined representations of the environment, climate crisis, and human–animal relationships in video games (De Beke et al., 2024). Using video games as a point of departure for discourse analysis, studies on popular geopolitics have analyzed how games construct “gameworld geopolitics” (Hughes, 2010, p. 124) and thus contribute to geopolitical discourses (Bos, 2018). The stories in video games vary greatly, from the fantastic to the everyday, from small-scale tales to grand historical narratives. In the study of world politics, popular culture is regarded as an outcome of world politics, a medium of inspiration for themes in international relations, evidence of the beliefs and norms espoused by international society, or elements that interact with other representations of politics (Neumann & Nexon, 2006). Popular culture is thus not merely reflective but also constitutive of international relations.

This research inquires into how popular imaginaries of polar geopolitics are propagated in and through video games, with particular focus on the polar regions and governmentality. It analyzes a range of video game genres and titles, from grand strategy to horror, to explore how these products encode the poles and mirror real-life representations of the Arctic and Antarctic. This exploration goes beyond surface semiotics (Backe, 2017), directed toward a broad spectrum of games of different genres to probe into the role that geopolitical imaginaries about the polar regions play in these games. The titles analyzed are Sid Meier’s Civilization series, Victoria 3, Detroit: Become Human, Nuclear Nightmare, the Syberia series, and Never Alone.

2. Playing Like the State: Games, Geopolitics, and Ecocritical Scholarship

Games are older than geopolitics. Wargaming emerged as a standard systematic practice in military training in the early 19th century, but its relationship with wars can probably be traced to the prehistoric origins of games (Crogan, 2015). Games, including video games, continue to have an important place in defense practice and therefore serve as a helpful window into geopolitical imaginaries. Indeed, formal geopolitics is often framed as a game, as evidenced by Medby's (2019) observation that game-related language features heavily in geopolitical discourses about the polar regions. Similarly, Steinveg's (2022) research on conferencing among policy actors shows that the language and practice of Arctic geopolitics are gamified. Given the prominence of language games and game language in polar geopolitics, it is necessary to study how geopolitical imaginaries about the polar regions are produced and reproduced in video games.

Games provide a "designed experience," wherein a game already determines possible outcomes (Squire, 2006). Bianchi (2014) illustrates how game design itself encodes ideologies about human-nature relationships, demonstrating that games convey normative judgments about how humans should interact with the environment. Juul (2011) argues that video games represent real rules embedded in fictional worlds, whereas Chang (2019, p. 20) contends that "games blend real worlds and fictional rules." Indeed, video games "often blend fantasy with realism and can draw on real-world places and peoples, which communicate ideas, perspectives, and ideologies pertaining to social realities" (Bos, 2018, p. 216). These products can reinforce existing narratives (Bos, 2018) and critique geopolitical narratives (Bos, 2023). Not only do they reflect hegemonic geopolitical discourses, but they also actively construct, influence, and naturalize them.

Video games are a methodological challenge for international relations given the complexity of their narrative, visual, and aural elements (Robinson, 2015). Research on critical geopolitics aims to "note the ways in which geopolitical discourse suffused everyday life" (Dittmer & Gray, 2010, p. 1665). An emergent strand of literature on critical geopolitics seeks to connect popular geopolitics, which has positioned itself as an indispensable avenue in the study of geopolitics, with ecocritical scholarship, which examines culture from an ecological perspective (dell'Agnese, 2021). Recent ecocritical contributions provide rich discussions of how the Arctic is constructed, represented, and imagined through the ideologies and interests rooted in hegemonic cultural discourses (Lehtimäki et al., 2021), while ecocritical game studies offer solid theoretical guidance for analyzing narratives in video games, which is directly applicable to geopolitical narratives. Although games may be read as texts (Chang, 2019, pp. 25–41), they are still computational processes (Bogost, 2011), but this computational character sets them apart from playground or board games, transforming simulated worlds into extremely complex environments (Bogost, 2011, p. 4). It is not only the semiotic content (text, images, etc.) of video games but also their structural components (game rules and mechanics) that convey meanings (Bianchi, 2014; Squire, 2006). Correspondingly, both these components comprise geopolitical imaginaries. Abraham and Jayemanne (2017) identify four primary modes in which the environment is depicted in games: the environment as backdrop, resource, antagonist, and text. They highlight how games often treat nature as subject to activity: "either an index of their movement (background) or subject to their extractive (resource), militarist (antagonist) or cognitive (text) gameplay" (Abraham & Jayemanne, 2017, p. 84).

In popular geopolitics, interesting issues for exploration are human-environment relationships in general and state-environment relations and the inferred association between player and state in particular. Postcolonial

scholarship has examined how video games portray colonialism in relation to land, space, and people (Mukherjee, 2017; Murray, 2024), with special consideration for the fact that many players are postcolonial subjects (Carpenter, 2021; Mukherjee, 2018). Indeed, video games guide a player to view their relationship with the state through the lens of governmentality (Kücklich, 2009; Punday, 2024). Governmentality (Foucault, 1991) refers to the rationalities that shape how institutions and actors think, behave, and regulate themselves, without recourse to laws or force. This concept offers a valuable heuristic for examining how the polar regions are subject to global governance mechanisms that aim to render them governable and secure (Albert & Vasilache, 2018). Foucault sees governmentality not merely as a shorthand for the state's administrative logic, but rather as referring to specific rationalities of governance, technologies, and techniques that produce governable subjects. Indeed, gameworlds function not merely as representations of real-world governmentality but as extensions of it, acting as "social factories" in which "all social life is part of economic production" (Kücklich, 2009, p. 348). Video games may invite a player to take on the role of a national leader and internalize the state's "gaze," naturalize the state's logic by using it as a background device for narratives, or explicitly reject the state and position themselves in opposition to it. The next section will briefly introduce the methods and data used in the articles.

3. Methods and Data

This article uses a qualitative, interpretive case-study approach to examine how the polar regions are represented across a purposive sample of video games. This study is guided by the theoretical framework of governmentality (Foucault, 1991), which provides the conceptual foundation for understanding how selected video games create popular geopolitical imaginaries of the polar regions by instantiating the rationalities, techniques, and production of governance. The analytical aim is to show how video games narrate the polar regions through their relationship to the state. This enables an examination of how gameworlds encode state-centred, extractive, colonial, or alternative Indigenous imaginaries of the polar regions.

The games were selected to provide a representative and broad illustration of how the polar regions are depicted in games, but are not meant to be representative of all popular imaginaries about the polar regions. Instead, they represent different points on the gradient of governmentality: from an explicit internalization of the sovereign gaze to a complete rejection of governmentality. Two games are selected in each of the three groups (internalized governmentality, ambivalent governmentality, and anti-governmentality), and the selected video games reflect diverse genres, including strategy games (Sid Meier's Civilization and Victoria 3), action-adventure (Detroit: Become Human), survival horror (Nuclear Nightmare), point-and-click adventure (Syberia), and puzzle-platformer (Never Alone). Empirically, the article examines textual/dialogic excerpts, in-game artefacts, and game rules. In doing so, the article builds on ecocritical scholarship to examine how each game represents the polar regions through distinct environmental modes and how these modes connect to governmental rationalities.

4. Internalizing the Sovereign Gaze: The Polar Regions as Frozen Fringes

Strategy games reflect geopolitical imaginaries about the polar regions in a way that marginalizes and territorializes these places. A player is invited to adopt the perspective of governmentality, acting as the embodiment of an administrative state, where population replaces citizens, statistics is the main mode of knowledge, power operates through optimization, and the ends are justified by *raison d'état* (Punday, 2024,

pp. 52–53). Sid Meier’s Civilization is one of the earliest and most successful franchises in the strategy game genre. In the game, a player selects a civilization from 4,000 BC and guides it through six millennia into the modern age, pursuing a victory that satisfies predefined conditions of triumph (e.g., military domination, science, culture, diplomacy, etc.). Civilizations in the game are functional representations of nation-states with fixed territories and borders, in which the state is an inheritor and driver of all human achievement (Pobłocki, 2003). Any land or territory is a terrain that contains resources, whose economic potential is actualized only as a result of the imposition of a political order by the state. Civilization recreates the doctrine of discovery, in which players are invited to claim terra nullius, that is, empty or occupied by uncivilized people (Leggott, 2023). As frontiers, unsettled spaces are defined in opposition to settled territories, which employ political techniques that enable the measurement of land, the control of terrain, and the imposition of political order over finite resources (Elden, 2010).

The polar regions are doubly marginalized in-game, even though they have been represented in the game since its first installment. This parallels the way that the Arctic and Antarctic have become “marginal” spaces on the global map” and the way that they “have been viewed through lenses of exploitation and extraction” (Medby et al., 2026, p. 9). First, the polar regions are physically marginalized in most campaigns, as games are played on randomly generated, usually cylindrical boards. Cylindrical boards are representations of Mercator-like map projections. However, the distortions of the Mercator projection are real: Distances are as great at the poles, and edges are actual barriers. In addition, given their limited economic utility to a player, the poles can serve only a marginal function in any campaign. The game’s core mechanic is the manner by which cities, located on the map, are situated on tiles, which represent mapped out “terrains,” like plains, mountains, hills, oceans, and marshes. They also comprise geographical features, such as rivers, resources, and forests. Each tile represents potential for players through “yields” or its economic utility to a civilization. This utility is realized through a combination of labor, represented by the city’s population accessing and “working” a tile on the board, and improvements on the map, such as mines and quarries.

In Civilization I, released in 1991 (MicroProse, 1991), the “Arctic” is the least useful terrain type for a player, yielding no economic resources unless it contains seals, a food resource. The “tundra,” intended to represent permafrost regions, is slightly better than the “Arctic” but generates only one unit of food and cannot be improved. Both terrain types occur along the northern and southern fringes of the cylindrical playing board, further solidifying their role as borders that delimit the playable area rather than as places of interest. Removing these terrains would minimally affect gameplay, but their portrayal in the game is important precisely because the environment is not only a resource but also a backdrop, a “smooth empty space in relation to which efficient movement takes place” (Abraham & Jayemanne, 2017, p. 79). Civilization games are designed to portray all of human history, thereby needing to ground in-game mechanics in what players know about the real-life geographic and economic characteristics of ideal-typical spaces. For this reason, most of the installments of Sid Meier’s Civilization franchise include an in-game encyclopedia. Civilization II describes the Tundra as follows:

In the far-northern regions of the world, and in isolated regions in the Antarctic, there are thousands of miles of barren plains known as tundra. These regions have an extremely low average temperature, and a very short summer season. The primary characteristic of the tundra is a layer of permanently frozen soil known as permafrost just below the topsoil layer, which prevents many plants from taking root and making agriculture all but impossible....Despite the harsh environment, a wide variety of animal life

flourishes in the tundra, providing possible sources of food, and providing trade potential for the fur and trapping industry. (MicroProse, 1996)

Chang (2019, p. 20) argues that games blend arbitrary in-game rules with in-game worlds experienced as real. By providing factual, popular-scientific information about the Tundra, the game combines popular imaginaries of the polar regions and legitimizes fictional regulations, such as the rule that tundras can produce only one unit of food. To do so, the game relies on imaginaries of real-world spaces to justify the fictional rules that it imposes. The representation of the polar regions changes together with the imaginaries associated with these real spaces. A notable example is the depiction of ice-covered areas of oceans. In *Civilization V* (Firaxis Games, 2010), these regions are represented as completely impassable hindrances, consistent with the in-game encyclopedia's description of them as "impassable, except to air and submarine units...[providing] nothing to cities" (Firaxis Games, 2010). In line with the territorial view of terrain, ice-covered regions are depicted not only as areas lacking in economic utility but also as impediments to blue-water passage.

A significant change in the representation of the polar regions was introduced in *Civilization VI: Gathering Storm* (Firaxis Games, 2019), which incorporates climate change as an in-game mechanic. As the developers state, the idea behind the central theme of *Gathering Storm* is to make the map more dynamic and enable a player to interact with it, along with the premises that the game should include a "semblance of climate change" and that "the global temperature is gonna rise and the sea levels will rise and the polar ice caps will melt" (Sid Meier's *Civilization*, 2018, 7:26). Accordingly, climate change expands the portrayal of the environment in Abraham and Jayemanne's (2017) typology beyond just backdrop and resource to also depict it as an antagonist.

This new game mechanic allows climate change to remove up to 85% of ice tiles on the board, turning them into passable ocean tiles. A player can track these developments and accurately predict how sea levels rise as polar ice melts (Figure 1). The player is also given several mitigation and adaptation measures to address climate change. For example, they can alleviate climate change by tasking cities with recapturing CO₂ emissions, thereby slowing the melting of the polar ice caps. As an adaptation measure to climate change-induced sea-level rise, cities can construct seawalls to prevent the flooding of coastal areas. Thus, although the game represents climate change as an antagonist, it also depicts it as a "tame technical problem" that can be effectively solved through policy and expertise (Dewulf, 2013). The logic of governmentality in this case becomes not merely representational but also operative, as the game socializes players into a governmental rationality that frames climate change as a problem of governance. The rules of *Civilization VI* are thus not just representations of ideologies, but also actively reproduce subject positions.

Civilization VI still describes ice as "impassable to ships (more than a few have come to grief, just ask the crew of the Titanic), and not much fun for other travelers. Except maybe the polar bears" (Firaxis Games, 2019). However, the types of economic resources in the game were gradually expanded beyond food and production to include faith and tourism. As a result, ice is no longer entirely useless and can now generate yields such as tourism, gold, and appeal when improved. The Tundra is also more useful to Russia and Canada, which receive special abilities to develop tundra tiles. In a game where no Arctic Indigenous peoples are present, these two countries emerge as uniquely adapted to colonizing this region. The game naturalizes the hegemonic narratives of these nations, where the Arctic is part of national identity (Grant, 1998; Hønneland, 2016). The economic exploitation of the Arctic by nation-states becomes almost deterministic.



Figure 1. A screenshot of the climate change menu in *Civilization VI: Gathering Storm*, showing the progression and effects of climate change.

The logic of governmentality is maximized even in games where a player is explicitly invited to serve as the state, and the person of “the sovereign becomes absorbed into an administrative state and an analytical and statistical system that relies not on power but on order and tactics” (Punday, 2024, p. 53). In the games produced by the Swedish studio Paradox Interactive, a player can become the “spirit of the nation” of any state-like formation within a historically rooted snapshot. *Victoria 3*, for example, is set in the period 1836 to 1936, in which a player starts a campaign as any historical state formation that existed in 1836 (Paradox Development Studio, 2022). There are no absolute goals or victory conditions for the player, and the game relies on the player setting and achieving their own objectives, which often include industrializing the nation, pursuing colonial expansion, and implementing legal reforms to bring the country under the player’s leadership into modernity. The entertainment value of the game derives from the player’s ability to enact an alternative history, starting from a “historical” map of the world in 1836 and a recreation of the course of history.

The polar regions are represented from the perspective of governmentality, wherein the population becomes the central concern of administration, driven by techniques of economic statecraft. The game map is a simplified Mercator projection of the globe, divided into smaller regions called “states,” which approximate historical regions with distinct economic structures. These states are territories, possess economic resources, and are inhabited by populations with distinct cultural and religious traits. The game assigns specific negative modifiers to Arctic territories: reduced economic efficiency in ranches, diminished construction efficiency, limited infrastructure, and halved migration attraction. Some states have positive traits, such as Arctic and Antarctic Whaling, which increases profitability for the whaling industry. This terrain modifier explicitly quantifies the extent to which these territories deviate from baseline regions in statistical terms. Following Chang (2019), this illustrates how fictional rules of the game represent real worlds through a governmentality perspective.

A distinctive feature of *Victoria 3* is its simulation of the international order based on “prestige,” intended to represent the diplomatic realities of the Victorian era. Prestige is a type of in-game currency that quantifies and mimics the real-world prestige-seeking behavior of states in international relations, whereby states wish to acquire prestige in order to gain entry into exclusive clubs (Gilady, 2022). In *Victoria 3*, prestige is an entry ticket to the Concert of Europe, where the great and major powers served structural functions in the operation of the international system. This vision of the international order is the unchangeable main part of the game. Prestige determines a nation’s rank among great and major powers and is accrued through measures of economic strength, military power, and international influence. Certain diplomatic actions and game mechanics are reserved for higher-ranking states, thereby incentivizing players to elevate their nations’ statuses in the global hierarchy.

Antarctic expeditions are one way through which a player can acquire additional prestige. The Antarctic expedition is one of several missions that include, for example, a voyage to the source of the Nile; these are meant to represent historically important events for imperialist projects of the 19th century. Antarctica does not appear as a map region, literally absent from the game’s conception of space. Still, a player can interact with the region by dispatching an expedition to Antarctica, triggering an event chain simulating the historic race to the South Pole between Amundsen and Scott. These interactive narrative events immerse the player in the perils and triumphs of polar exploration. Each event appears as a pop-up, with a short textual description. In one event, for instance, the player can decide whether the expedition leader should kill and eat the sled dogs to enhance their chances of survival. The player chooses the outcome of the event by selecting one of the provided options, which exerts either a negative or positive effect on the progression of the expedition. This particular event is inspired by a real dilemma faced by Amundsen and Shackleton in their Antarctic expeditions. A successful voyage to the Antarctic confers a small prestige boost to the player, and this prestige is framed in terms of its benefits to the administrative state, as it elevates the nation’s standing in the international hierarchy. This popular representation of polar exploration echoes the view of scientific presence and exploration as intertwined with global prestige. By framing the polar regions as sources of imperial prestige through scientific endeavors, *Victoria 3* mirrors how great powers still imagine the polar regions as sites of tremendous geopolitical influence (Lamazhapov, 2025; Yao, 2021).

The polar regions are by no means in focus in the *Civilization* or *Victoria* franchises, but they must be represented because of their idiosyncratic nature and their importance to global ecosystems, even as the games present a universalizing, territorializing characterization of the globe. Because the environment in Sid Meier’s *Civilization* is depicted through what the poles can offer to the state, they are portrayed as inhospitable and resource-poor frozen fringes of the map. Early installments claim that “glacial regions are inhospitable, containing little animal life, no plant life, and virtually no resources of any kind” (MicroProse, 1996). The expansion of the functions of the polar regions in contemporary installations reflects changes in popular imaginaries about the poles. The inclusion of tourism as a resource produced by ice mirrors the explosion of tourism in the polar regions (Maher et al., 2014). Melting ice opening up naval passages reflects the view of climate change as an opportunity for shipping, which is prevalent in discourses on the Arctic routes (Moe et al., 2024). The polar regions are overtly included due to their global ecological importance, yet they are framed through human-centric utilitarian lenses, in which they answer to the needs of state-centered technical governance. In *Victoria 3*, which more explicitly adopts a state-oriented perspective, polar specificity is framed in terms of its economic effects. The depiction of the polar regions embodies popular imaginaries about them and naturalizes the logic of the administrative state. Within the totalizing view of the state, the polar regions are marginalized both physically and economically.

5. Backgrounding the Poles: The Polar Regions as Geopolitical Hotspots

Detroit: Become Human (Quantic Dream, 2018) invokes the popular geopolitical imaginary about the Arctic as a geopolitical hotspot. Unlike the strategy games discussed previously, *Detroit: Become Human* is an action-adventure title where players take control of several characters. Unlike strategy games, where a player exercises god-like control over nation-states, *Detroit: Become Human* involves players in navigating a branching, narrative-driven story, in which their actions and choices directly affect the story's development. The game is set in a futuristic Detroit in 2038, where sentient human-like robots (androids) are part of everyday life, able to speak, move, and behave akin to human beings, yet remain marginalized and subjugated as machines meant to serve humans. The game's central conflict stems from the themes of recognition and emancipation. By entertaining a theoretical question about what it means to be recognized as human, it seeks to problematize narratives about race, gender, and sexuality (Leach & Dehnert, 2021). A player starts as a tool of state and corporate power, and the game's core question is whether they will remain one.

The narrative structure in *Detroit: Become Human* is complex, and the Arctic is only a background narrative device. Unlike strategy games inviting players to "play the state," the game reflects governmentality through a dispersed governmental apparatus that governs at the knowledge-power nexus through discourse, expertise, and biopolitical classification. Although the game is set in a place far from the Arctic and the player cannot interact with the region in any meaningful way, the geopolitics of the Arctic serves as a narrative geopolitical backdrop in the plot. The plot reveals that the mineral Thirium 310, which is essential for android production, is abundant beneath the Arctic ice. As polar ice caps continue to melt due to climate change, these resources become accessible and provoke a scramble between Russia and the US. The plot is revealed to the player through a series of disjointed news stories reporting that the Russian president has dispatched troops to the Arctic to secure Thirium reserves, prompting international condemnation and escalating tensions with the US.

A player can watch the news or read about these developments in fictional newspapers or through a series of newspaper reports and TV broadcasts, which have little effect on the characters' development (Figure 2). The unfolding of the geopolitical conflict exemplifies how significant global events influence everyday experiences. The in-game news is modeled on real-life actors, and the Arctic is included to sustain the suspension of disbelief regarding the fictional resource Thirium 310. These news snippets function as dispersed expert knowledge and public rationalities that normalize extraction as a state necessity, thereby producing a "regime of truth" about Arctic resources and national security. Grounded in real-life discourses about the Arctic, the game provides a popular culture representation of the "scramble for the Arctic," which was especially commonplace around 2008 and still shapes the way that the Arctic is thought about today (Dodds & Nuttall, 2016). Consider this fictional magazine article from the game:

Surplus Thirium reserves would allow either nation to experiment in more advanced android models, enhancing their military and industrial output tremendously....Add to this the strategic importance of the region—which connects Russia with Europe through Norway and Denmark (Greenland), as well as Canada—and the prospect of a peaceful resolution to the dispute seem unlikely. But a spokesperson for NATO is more optimistic: "Both nations stand to benefit from a stable, productive Arctic region. A conflict would benefit nobody." President Warren, however, recently torpedoed the notion: "It's simple. Russia has no business in the Arctic. If the Kremlin doesn't understand that, we will make them understand." (Quantic Dream, 2018)



Figure 2. A TV news story covering the unfolding Arctic conflict in Detroit: Become Human.

The passage vividly depicts the great-power rivalries in the Arctic, drawing on familiar tropes of the Arctic scramble. In its style, it could have been mistaken for an excerpt from a real news article, which includes a cast of usual suspects: Russia, the US, and NATO. The Arctic is territorialized and represented as a treasure trove of hidden and undivided resources, coveted by the world’s great powers. The geopolitics of the Arctic is narrated in terms of national interests. Even the Arctic exceptionalism narrative, which maintains that the US and Russia can cooperate in the Arctic despite their differences elsewhere, also appears. The game thus cleverly mirrors an actual political and academic debate on whether conflict or cooperation may prevail in the Arctic (Lackenbauer & Dean, 2021). By converting the remote, backgrounded Arctic into a calculable strategic resource, the game reflects a governmentality perspective that trains the player to accept the media-state knowledge–power nexus as authoritative and to take a stance vis-à-vis this background information, thereby informing the player’s moral decisions. This background governmentality perspective lends a geopolitical theater to the central conflict in the game, which is biopolitical. Foucault (1991) observes that governmentality reorients power from sovereignty to techniques of order and administration. Though the game narratively critiques governmentality and biopolitics, it also reproduces it procedurally, as the game’s Arctic resource logic naturalizes extractive rationality for the player.

Crucially, Detroit: Become Human invokes a popular imaginary of the Arctic along with its misconceptions. As Østhagen (2023) argues, common misconceptions about Arctic geopolitics include the beliefs that the region is riddled with territorial disputes, that vast Arctic resources drive conflict, that climate change directly causes geopolitical tension, and that the Arctic functions as a single, unified geopolitical region. The in-game narrative corresponds with both the logic of technology-driven resource extraction enabled by climate change and the representational view of the polar regions as the next frontiers and the last areas of the Earth that remain beyond the grip of nation-states. The game frames the conflict as “US and Russian claims to Arctic territory,” but the real-world Arctic is an ocean with seven out of eight maritime boundaries being agreed upon and free from territorial disputes (the dispute over Hans Island having been resolved in 2022; Østhagen, 2023). The only areas with unsettled legal status in the Arctic are the seabed beyond 200 nautical miles, where Arctic coastal states may assert their sovereign rights on the extended continental shelf (Jensen, 2015).

Sovereign rights are distinct from sovereignty, but these complex legal distinctions are lost in the popular imagination, as evidenced by the game, which signifies these differences by portraying the Arctic dispute as territorial and by suggesting that Russia plans to annex Arctic territories, as if they were terra nullius.

This logic of a looming geopolitical conflict can also be mobilized as a type of horror. *Nuclear Nightmare* (BG Productions, 2024) amplifies the sense of an impending polycrisis and renders it literal by forcing a player to fight against the clock. Developed by an American Los Angeles-based studio, BG Productions, and released in early access in October 2024, the game has garnered over 14,000 positive reviews on Steam in February 2026. Set in the polar regions, *Nuclear Nightmare* describes its environment as “the harsh Arctic landscape,” but it is actually situated in Antarctica (Steam, n.d.). The narrative is inspired by the 1982 classic *The Thing*: A deadly outbreak of the Black Goo virus has wiped out the personnel at Antarctic research stations, unleashing monstrous entities. Players, as members of an elite extraction team, are dispatched to recover classified intelligence before the US government initiates a nuclear strike on Antarctica to contain the virus.

The game employs the environment in all four senses suggested by Abraham and Jayemanne (2017): as backdrop, resource, antagonist, and text. The Antarctic is an effective backdrop: Its remoteness and the station’s status as a site of secretive research contribute to an atmosphere of dread and uncertainty. The equipment placed around the station, including a huge drilling rig, once again depicts the polar regions as an asset in states’ endless pursuit of natural resources. The polar environment is also an adversary, as players must contend not only with the monsters threatening them but also with extreme cold, which requires limiting the time spent outdoors to survive. The environment is likewise a text, given that players can piece together the game’s backstory by analyzing evidence in secret documents scattered throughout the station. Paradoxically, although the game is set in Antarctica, the fact that it is located in the polar regions remains only an incidental detail: The setting could have easily been swapped with outer space.

The biological horror builds upon the classic narrative of *The Thing*, linking alien threats to a biological nightmare, a trope dramatized through discourses surrounding the polar regions as sites of untapped danger. The virus and the abominations discovered at the station are veiled in secrecy, and the objectives of the game are to collect and upload classified reports, which suggest the unethical nature of the research. The species found originate from the drills installed at the station, where “frozen anomalies” and frozen lifeforms have been discovered, including unknown species like Arachnoid Cyst. These worries mirror actual discourses on the dangers posed by climate change in the polar regions: Thawing permafrost threatens to release ancient microorganisms, viruses, toxic chemicals, and radioactive materials (Miner et al., 2021). Drilling stations unleashing irregularities mobilize plausible scientific anxieties to construct narratives about potential disruptions to organized governance. The focus on discovering hidden, dangerous life forms parallels governmentality’s preoccupation with biopolitics and the production of systematic knowledge.

The geopolitical horror of the imminent US nuclear strike creates a time constraint but also betrays the popular imagination of an underlying assumption that the US is both a protector of the world and an arbiter in the unfolding crisis, with the ability to carry out unilateral action. The Antarctic station is international, but both the symbol of the International Science Foundation and the “UNS” are closely modeled on the symbols of the National Science Foundation and the US Antarctic Program (Figure 3). The possibility that the US will deliver a unilateral strike on Antarctica and that it holds a special responsibility for containing the biological hazard is

an unspoken, taken-for-granted premise of the game, in which the state exercises a monopoly over regulating spaces under its jurisdiction through rationalized authority grounded in power and knowledge.



Figure 3. UNS International Science Foundation sign guiding a player through the horrors lurking in the polar night.

It is the relationship between the state and the polar regions themselves that becomes the problem behind the geopolitical crisis. If states are indeed driven by territorial claims, resource extraction, and militarization, the polar regions become hotspots for these contradictions. *Detroit: Become Human*, which explicitly critiques biopolitics and governmentality, draws on popular imaginaries of the Arctic to criticize state-centered extractivism. Just as real-world depictions of Arctic geopolitics use climate change and conflict “to highlight the relevance and importance of the region” (Østhagen, 2023), the impending polycrisis, driven by climate change and geopolitics, accentuates the ethical dilemmas borne by the game’s characters, who fight against the state’s discriminatory policies. In *Nuclear Nightmare*, the polar environment amplifies horror by dramatizing the very real anxieties that accompany the collapse of the cryosphere and the polycrisis fomented by human activity. Popular imaginaries about the polar regions are thus mobilized to implicitly critique nation-states responsible for looming disasters, given their greed and hunger for resources. Both games push back against the governmentality gaze directed toward the polar regions, yet a player still functions as a tool of the state. Still, these games train the player in responsabilized micro-decisions, things under their plausible control, while accepting state managerialism at the geopolitical level.

6. Anti-governmentality: The Indigenous Arctic and Colonialism

The portrayal of the polar regions as uninhabited deserts obscures the fact that the Arctic region has been inhabited by humans for thousands of years. Popular imaginaries sometimes conflate the Arctic and Antarctica, erasing Indigenous peoples and portraying the former as an empty desert for adventure, extraction, or conquest rather than a lived homeland. Grand strategy games like *Civilization* and *Victoria 3* represent the Indigenous both as subjects to be colonized by a player and as potential agents of this colonization, but in the process, they “reify not only Western notions of advancement but state-centered

notions of who counts” (Carpenter, 2021, p. 46). Benoît Sokal’s *Syberia* excellently decenters the state and shows Indigenous agency. The game seeks to provide an alternative to governmentality, oriented toward lifeworld values, stewardship, and relational personhood. *Syberia* is a series of point-and-click adventure games following the story of an American adventurer, Kate Walker, a successful New York lawyer who travels to fictional locations across Europe and Asia, where she encounters fantastical animals in a steampunk alternative universe set in the 2000s. The protagonist’s journey ultimately leads her to the island of *Syberia* in the Russian Arctic, a homeland of the native Youkol people and a place where mammoths still live.

The game draws on the real historical experiences of colonized peoples of the Arctic and delivers a harsh critique of Western state-driven imperialisms. *Syberia* positively portrays the underrepresented Indigenous peoples of the Russian Arctic and excoriates Russian colonialism, which is a taboo topic in Russia to this day (Bogatova, 2025; Etkind, 2015). *Syberia* rejects governmentality by privileging Indigenous cosmologies as legitimate modes of knowing the environment. Still, *Syberia* (Sokal, 2002) and *Syberia II* (Sokal, 2004) lean heavily into the noble savage trope. In the first game, the Youkol are never encountered, only narrated through the eyes of a Western professor (Figure 4). They represent a mysterious and resilient people who have maintained their traditions despite the harsh climate and colonial experiences, as well as an alternative to modernity. Sokal dismisses the morally bankrupt West and the decrepit post-Soviet modernity. In fact, Kate Walker’s journey is a rejection of capitalist and patriarchal expectations. She abandons her corporate job and fiancé to pursue a personal quest that leads her to the Youkol. More than just a physical journey, the protagonist’s arc is a symbolic escape from modernity “to a timeless world immune from political economy” (Fletcher, 2008, p. 251). The Youkols’ Indigenous way of life and the remote setting of the Arctic contribute to deepening the divide between these worlds.

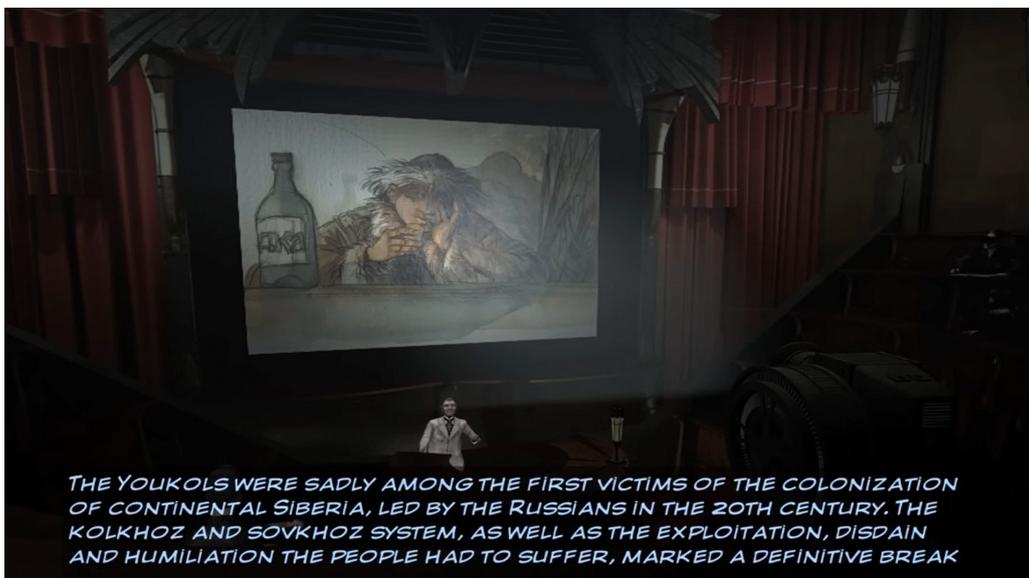


Figure 4. Professor Pons gives a lecture on the Youkol in *Syberia*.

The portrayal of the Youkol in the franchise changes throughout the installments. Descriptions of the Youkol by in-game scientists offer a critique of the imperialist origins of anthropology and ethnography. At the same time, *Syberia II* leans into humorous representations of the Youkol for comic relief. These people are

nameless, physically stout and short, with clear racialized features. Although the protagonist encounters many non-native speakers of English with comedic, stereotypical Russian and German accents, only the Youkol speak in ungrammatical, broken English. Capitalizing on the noble savage trope, these people embody hope in humanity's capacity to withstand crises. In *Syberia II*, we learn that "at the end of the last ice age, there were huge climatic changes" and "much of the land was flooded by water," but the Youkol, who are "a particularly advanced people for the age," constructed an enormous Ark, saving mammoths from extinction (Sokal, 2004). Their flaws are tempered in *Syberia 3* (Sokal, 2017), which renders the physical appearance of the Youkol less comedic and incorporates real Mongolian words into the Youkol vocabulary. Most importantly, we are introduced to a Youkol called Kurk, who is not only named but also an eloquent and reflective individual. This change reflects the increased emphasis on the names, voices, dignity, and agency of Indigenous groups. Similar to previous installments, the game explicitly rejects colonial institutions, such as the military and medical systems that seek to control and "cure" the Youkol.

The game critiques the government's use of infrastructure as a form of governmental technology. For example, in one scene, the government restricts Youkol mobility by establishing crossings that can be crossed only with a valid pass. The entire narrative is driven by the polycrisis, as the Youkols cannot complete their normal nomadic migration due to climate change and thus have to stay near a city. Yet, this population transfer creates a governance problem for the state, which reacts by restricting Youkol mobility. The player first learns of this system from the Youkols, then from the guard, and finally from a villager. The government then tightens control and destroys the pass machine, rendering the nomadic Youkols as an immobile, delegitimized population. The player observes a prototypical technology of governmentality in practice: nomadic presence is transformed into a problem of public order, in which stereotyping becomes an effective tool of governance, and accusations against the Youkols are not investigated because they do not need to be. The government destroys the pass machine at the camp exit and transforms nomadism from an ontological condition of Youkol life into an administratively manufactured pathology, regarding it as "degradation of public infrastructure." We learn from the villagers that the system is indeed discriminatory. Yet the villager teaches the player to subvert the system by providing an unstamped pass, urging the protagonist to forge the stamp, and thus showing how subjects of governmentality subvert and reproduce the regulatory regime through everyday tactics of informal economies of compliance. *Syberia 3* thus mocks the banality of bureaucratic techniques. Yet the player must still forge a pass to make progress, and success is achieved through a tacit politics of forgery that both subverts the governmentality and validates its documentary logic.

This rejection and decentering of Western colonial states continues in *Never Alone: Kisima Injitchujana*, developed by Upper One Games (2014) in collaboration with the Iñupiat people. The game presents a narrative grounded in the Iñupiat oral tradition and fully decenters the state, which is often portrayed as the pinnacle of human activity in the Arctic. The adventure follows Nuna, an Iñupiat girl, and her Arctic fox companion as they seek to save their village from a blizzard. The game constructs a functioning world where the state is practically nonexistent. The main antagonist, the Manslayer, is a "terrible man" who has destroyed two villages in his search for something. An anthropomorphized depiction of the state, the Manslayer is completely decentered in the narrative, and his motives remain unknown. The Indigenous worldview is central rather than an afterthought—a substantial departure from popular geopolitical imaginaries that typically prioritize state and colonial interests in the Arctic.

Both games come down to the level of human experience, but they also subtly reflect on larger geopolitical imaginaries. In the *Syberia* series, the game's polar setting intersects with Indigeneity as a point of radical difference between the remote Arctic, capitalist corporate America, decaying war-torn Europe, and decrepit post-Soviet Russia. *Syberia* confers agency to Indigenous peoples and depicts them as agents of their own future and an idealized point of resistance to the polycrisis: They persevere in spite of climate change and the ceaseless attempts of nation-states to colonize them. Likewise, *Never Alone* positions the Indigenous worldview as central to the story and decenters the state, focusing instead on the relationship between humans and the environment. In doing so, it subverts popular geopolitical imaginaries that prioritize state interests over Indigenous realities, unapologetically advancing a world where Indigeneity is celebrated. Instead of accepting the logic of governmentality, these games attempt to dismantle the archetype of state-driven modernity, presenting Indigenous ways of being, knowing, and doing as an effective alternative to entrenched geopolitical imaginaries. More nuanced and respectful representations of Indigenous peoples in video games can shape popular imaginaries and work against Indigenous erasure.

7. Conclusion

In many ways, video games reflect common geopolitical imaginaries about the polar regions and often carry misconceptions about them. As Østhagen (2023) argues, popular assumptions often amplify insignificant disputes in the Arctic while ignoring the complex set of governance mechanisms in the regions, exaggerate resource availability, and lack sophistication in the portrayal of climate change, which functions more as a condition rather than a cause of geopolitical conflicts in the regions. By using the polar regions as a narrative backdrop, video games can readily evoke a range of popular imaginaries about them. Common imaginaries include representations of the polar regions as *terra nullius*, or unclaimed but potentially claimable spaces, as frozen ocean, as spaces whose economic potential is unrealized due to encumbrance by ice, or as frontiers rich in natural resources needed by humanity (Steinberg et al., 2018).

Video games often adopt the state's gaze in their characterization of the polar regions. Governmentality helps us see how the relationship between the player and the state is encoded in gameworlds through game rules, mechanics, narrative, and audiovisual devices. Although these regions are rarely centered, typically occupying the fringes of the map or left outside the margins, they remain central in framing the main geopolitical landscape of video game narratives. The polar regions serve as focal points and framing devices that help make sense of everyday experiences beyond the poles. When narratives are explicitly set in the polar regions, they are chosen as settings because of their radical difference from the norm. These places are portrayed as remote, cold, and isolated; their departure from the norm allows for a suspension of the daily rules and conventions that govern life elsewhere. The poles act not just as framing devices but as the very stage upon which climate change, biological hazards, moral collapse, and the limits of human agency are dramatized. Their unique, vulnerable, and mysterious nature makes them perfect sites for maximizing and actualizing the logic underlying the global polycrisis in a tangible, immediate way. This uneven consideration of the polar regions as both marginalized spaces and as sites of acute geopolitical crises in gameworld geopolitics mirrors the fluctuating levels of attention paid by real-world states to the poles (Albert & Vasilache, 2018). However, video games may also reject the sovereign gaze. For example, by foregrounding Indigenous voices and disregarding the state-centric narratives of extractive economics, video games potentially create new imaginaries that subvert state-centric governance.

This article has sought to contribute to the study of popular geopolitics by expanding it to include digital narratives as a powerful medium through which geopolitical imaginaries are both reproduced and contested. It established a connection between critical geopolitics and ecocritical scholarship, which offers much to the field of critical geopolitics by providing scholars with tools to critically engage with how digital media articulates ecological threats and geopolitical tensions. More research is needed to explore not just surface semiotics, but also a more in-depth discussion of how video game mechanics may shape or reflect geopolitical imaginaries.

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The author declares no conflict of interests.

Data Availability

The data that support the findings of this study are available from the author, Erdem Lamazhapov, upon reasonable request.

LLMs Disclosure

Grammarly LLM was used to ensure correct spelling and grammar.

References

- Abraham, B., & Jayemanne, D. (2017). Where are all the climate change games? Locating digital games' response to climate change. *Transformations*, 30, 74–94. https://opus.lib.uts.edu.au/bitstream/10453/121664/1/Trans30_05_abraham_jayemanne.pdf
- Albert, M., & Vasilache, A. (2018). Governmentality of the Arctic as an international region. *Cooperation and Conflict*, 53(1), 3–22. <https://doi.org/10.1177/0010836717703674>
- Backe, H.-J. (2017). Within the mainstream: An ecocritical framework for digital game history. *Ecozon@: European Journal of Literature, Culture and Environment*, 8(2), 39–55. <https://doi.org/10.37536/ECOZONA.2017.8.2.1362>
- BG Productions. (2024). *Nuclear nightmare* [Video game]. BG Productions.
- Bianchi, M. (2014). Rhetoric and recapture: Theorising digital game ecologies through EA's *The Sims* series. *Green Letters*, 18(3), 209–220. <https://doi.org/10.1080/14688417.2014.963881>
- Bogatova, G. (2025). Provincializing Russia: Recontextualizing postcolonial thought in the post-Soviet era. *Interventions*. Advance online publication. <https://doi.org/10.1080/1369801X.2025.2530114>
- Bogost, I. (2011). *How to do things with videogames*. University of Minnesota Press.
- Bos, D. (2018). Popular geopolitics and the landscapes of virtual war. In R. A. Saunders & V. V. Strukov (Eds.),

- Popular geopolitics: Plotting an evolving interdiscipline* (pp. 216–234). Routledge. <https://doi.org/10.4324/9781351205030>
- Bos, D. (2023). Playful encounters: Games for geopolitical change. *Geopolitics*, 28(3), 1210–1234. <https://doi.org/10.1080/14650045.2021.2002846>
- Carpenter, M. J. (2021). Replaying colonialism: Indigenous national sovereignty and its limits in strategic videogames. *The American Indian Quarterly*, 45(1), 33–55. <https://doi.org/10.1353/aiq.2021.a776046>
- Chang, A. Y. (2019). *Playing nature: Ecology in video games*. University of Minnesota Press.
- Crogan, P. (2015). Wargaming and computer games: Fun with the future. In M. Swalwell & J. Wilson (Eds.), *The pleasures of computer gaming: Essays on cultural history, theory and aesthetics* (pp. 147–167). McFarland.
- De Beke, L. O., Raessens, J., Werning, S., & Farca, G. (2024). *Ecogames: Playful perspectives on the climate crisis*. Amsterdam University Press. <https://doi.org/10.2307/jj.10819591>
- dell’Agnese, E. (2021). *Ecocritical geopolitics: Popular culture and environmental discourse*. Routledge. <https://doi.org/10.4324/9780429293504>
- Dewulf, A. (2013). Contrasting frames in policy debates on climate change adaptation. *WIREs: Climate Change*, 4(4), 321–330. <https://doi.org/10.1002/wcc.227>
- Dittmer, J., & Dodds, K. (2008). Popular geopolitics past and future: Fandom, identities and audiences. *Geopolitics*, 13(3), 437–457. <https://doi.org/10.1080/14650040802203687>
- Dittmer, J., & Gray, N. (2010). Popular geopolitics 2.0: Towards new methodologies of the everyday. *Geography Compass*, 4(11), 1664–1677. <https://doi.org/10.1111/j.1749-8198.2010.00399.x>
- Dodds, K., & Nuttall, M. (2016). *The scramble for the poles: The geopolitics of the Arctic and Antarctic*. Polity.
- Dodds, K., Woon, C. Y., & Xu, L. (2022). Critical geopolitics. In M. Lindroth, H. Sinevaara-Niskanen, & M. Tennberg (Eds.), *Critical studies of the Arctic* (pp. 77–98). Springer. https://doi.org/10.1007/978-3-031-11120-4_5
- Elden, S. (2010). Land, terrain, territory. *Progress in Human Geography*, 34(6), 799–817. <https://doi.org/10.1177/0309132510362603>
- Etkind, A. (2015). How Russia ‘colonized itself’: Internal colonization in classical Russian historiography. *International Journal for History, Culture and Modernity*, 3(2), 159–172. <https://doi.org/10.18352/hcm.481>
- Firaxis Games. (2010). *Sid meier’s civilization V* [Video game]. Firaxis Games.
- Firaxis Games. (2019). *Sid meier’s civilization VI: Gathering storm* [Video game]. Firaxis Games.
- Fletcher, R. P. (2008). Of puppets, automatons, and avatars: Automating the reader-player in electronic literature and computer games. In Z. Whalen & L. N. Taylor (Eds.), *Playing the past: History and nostalgia in video games* (pp. 239–264). Vanderbilt University Press.
- Foucault, M. (1991). Governmentality. In G. Burchell, C. Gordon, & P. Miller (Eds.), *The Foucault effect: Studies in governmentality* (pp. 87–104). Harvester Wheatsheaf.
- Gilady, L. (2022). *The price of prestige: Conspicuous consumption in international relations*. University of Chicago Press.
- Grant, S. D. (1998). Arctic wilderness—And other mythologies. *Journal of Canadian Studies*, 33(2), 27–42. <https://doi.org/10.3138/jcs.33.2.27>
- Hønneland, G. (2016). *Russia and the Arctic: Environment, identity and foreign policy*. I.B. Tauris.
- Hughes, R. (2010). Gameworld geopolitics and the genre of the quest. In F. MacDonald, R. Hughes, & K. Dodds (Eds.), *Observant states: Geopolitics and visual culture* (pp. 123–142). I.B. Tauris. <https://doi.org/10.5040/9780755620494>
- Jensen, Ø. (2015). The seaward limits of the continental shelf beyond 200 nautical miles in the Arctic Ocean: Legal framework and state practice. In L. C. Jensen & G. Hønneland (Eds.), *Handbook of the politics of the Arctic* (pp. 227–246). Edward Elgar Publishing. <https://doi.org/10.4337/9780857934741.00020>

- Juul, J. (2011). *Half-real: Video games between real rules and fictional worlds*. The MIT Press.
- Kücklich, J. R. (2009). Virtual worlds and their discontents: Precarious sovereignty, governmentality, and the ideology of play. *Games and Culture*, 4(4), 340–352. <https://doi.org/10.1177/1555412009343571>
- Lackenbauer, W. P., & Dean, R. (2021). Arctic exceptionalisms. In K. Spohr, D. S. Hamilton, & J. C. Moyer (Eds.), *The Arctic and world order* (pp. 327–355). Foreign Policy Institute.
- Lamazhapov, E. (2025). Polar contradictions: China's dialectical thinking about the Arctic. *Geopolitics*, 30(3), 1355–1390. <https://doi.org/10.1080/14650045.2024.2408601>
- Lawrence, M., Homer-Dixon, T., Janzwood, S., Rockström, J., Renn, O., & Donges, J. F. (2024). Global polycrisis: The causal mechanisms of crisis entanglement. *Global Sustainability*, 7, Article e6. <https://doi.org/10.1017/sus.2024.1>
- Leach, R., & Dehnert, M. (2021). Becoming the other: Examining race, gender, and sexuality in *Detroit: Become Human*. *Review of Communication*, 21(1), 23–32. <https://doi.org/10.1080/15358593.2021.1892173>
- Leggott, C. (2023). Terra nullius: Claiming land on civilization's empty earth. In D. Mitchell, A. Pearson, & T. D. Peters (Eds.), *Law, video games, virtual realities: Playing law* (pp. 269–289). Routledge. <https://doi.org/10.4324/9781003197805>
- Lehtimäki, M., Rosenholm, A., & Strukov, V. (2021). *Visual representations of the Arctic: Imagining shimmering worlds in culture, literature and politics*. Routledge.
- Maher, P. T., Gelter, H., Hillmer-Pegram, K., Hovgaard, G., Hull, J., Jóhannesson, G. Þ., Karlsdóttir, A., Rantala, O., & Pashkevich, A. (2014). Arctic tourism: Realities & possibilities. In L. Heininen, H. Exner-Pirot, & J. Plouffe (Eds.), *Arctic yearbook 2014* (pp. 290–306). Arctic Portal. https://arcticyearbook.com/images/yearbook/2014/Scholarly_Papers/15.Maher.pdf
- Medby, I. A. (2019). Language-games, geography, and making sense of the Arctic. *Geoforum*, 107, 124–133. <https://doi.org/10.1016/j.geoforum.2019.10.003>
- Medby, I. A., Kristoffersen, B., Steinberg, P., Dodds, K., Bennett, M. M., Bruun, J. M., & Kontou, D.-M. (2026). Polar projections: Political geographies of Arctic mapping. *Political Geography*, 124, Article 103391. <https://doi.org/10.1016/j.polgeo.2025.103391>
- MicroProse. (1991). *Sid meier's civilization* [Video game]. MicroProse.
- MicroProse. (1996). *Sid meier's civilization II* [Video game]. MicroProse.
- Miner, K. R., D'Andrilli, J., Mackelprang, R., Edwards, A., Malaska, M. J., Waldrop, M. P., & Miller, C. E. (2021). Emergent biogeochemical risks from Arctic permafrost degradation. *Nature Climate Change*, 11, 809–819. <https://doi.org/10.1038/s41558-021-01162-y>
- Moe, A., Andreeva, S., & Gunnarsson, B. (2024). More or less ice? Shipping in the Russian Arctic and the role of climate change. *Arctic Review on Law and Politics*, 15, 130–152. <https://doi.org/10.23865/arctic.v15.6504>
- Mukherjee, S. (2017). *Videogames and postcolonialism: Empire plays back*. Springer. <https://doi.org/10.1007/978-3-319-54822-7>
- Mukherjee, S. (2018). Playing subaltern: Video games and postcolonialism. *Games and Culture*, 13(5), 504–520. <https://doi.org/10.1177/1555412015627258>
- Murray, S. (2024). Postcoloniality, ecocriticism and lessons from the playable landscape. In L. O. De Beke, J. Raessens, S. Werning, & G. Farca (Eds.), *Ecogames: Playful perspectives on the climate crisis* (pp. 145–162). Amsterdam University Press. <https://doi.org/10.5117/9789463721196>
- Neumann, I. B. (2018). Foreword: An odd couple? Popular culture and geopolitics. In R. A. Saunders & V. V. Strukov (Eds.), *Popular geopolitics: Plotting an evolving interdiscipline* (pp. xi–xiv). Taylor & Francis. <https://doi.org/10.4324/9781351205030>
- Neumann, I. B., & Nexon, D. H. (2006). Introduction: Harry Potter and the study of world politics. In D. H. Nexon & I. B. Neumann (Eds.), *Harry Potter and international relations* (pp. 1–23). Rowman & Littlefield.

- Østhagen, A. (2022). *Ocean geopolitics: Marine resources, maritime boundary disputes and the law of the sea*. Edward Elgar Publishing. <https://doi.org/10.4337/9781802201567>
- Østhagen, A. (2023). *Five misconceptions in Arctic security and geopolitics*. The Arctic Institute. <https://www.thearcticinstitute.org/five-misconceptions-arctic-security-geopolitics>
- Paradox Development Studio. (2022). *Victoria 3* [Video game]. Paradox Interactive.
- Pobłocki, K. (2003). Becoming-state: The bio-cultural imperialism of Sid Meier's Civilization. *Focaal. European Journal of Anthropology*, 39, 163–177. <http://hdl.handle.net/10593/8609>
- Powell, R. C., & Dodds, K. (2014). Polar geopolitics. In R. C. Powell & K. Dodds (Eds.), *Polar geopolitics?* (pp. 3–18). Edward Elgar Publishing. <https://doi.org/10.4337/9781781009413.00008>
- Punday, D. (2024). *Infrastructure in video games*. Palgrave Macmillan. <https://doi.org/10.1007/978-3-031-72092-5>
- Quantic Dream. (2018). *Detroit: Become human* [Video game]. Sony Interactive Entertainment.
- Robinson, N. (2015). Videogames and IR: Playing at method. In F. Caso & C. Hamilton (Eds.), *Popular culture and world politics: Theories, methods, pedagogies* (pp. 91–100). E-International Relations Publishing.
- Sid Meier's Civilization (2018, November 21). *Civilization VI: Gathering storm—First gameplay (message from sid meier)* [Video]. YouTube. <https://www.youtube.com/watch?v=NChGloy1Cxw>
- Sokal, B. (2002). *Syberia* [Video game]. Microïds.
- Sokal, B. (2004). *Syberia II* [Video game]. Microïds.
- Sokal, B. (2017). *Syberia 3* [Video game]. Microïds.
- Squire, K. (2006). From content to context: Videogames as designed experience. *Educational Researcher*, 35(8), 19–29. <https://doi.org/10.3102/0013189X035008019>
- Steam. (n.d.). *Nuclear nightmare*. https://store.steampowered.com/app/2909110/Nuclear_Nightmare
- Steinberg, P., Tasch, J., & Gerhardt, H. (2018). *Contesting the Arctic: Politics and imaginaries in the circumpolar North*. I.B. Tauris.
- Steinveg, B. (2022). Arctic conferences as arenas for power games and collaboration in international relations. *The Polar Journal*, 12(2), 240–260. <https://doi.org/10.1080/2154896X.2022.2137086>
- Tuathail, G. Ó. (1999). Understanding critical geopolitics: Geopolitics and risk society. *Journal of Strategic Studies*, 22(2/3), 107–124. <https://doi.org/10.1080/01402399908437756>
- Upper One Games. (2014). *Never alone (Kisima Inñitchuṅa)* [Video game]. E-Line Media.
- Yao, J. (2021). An international hierarchy of science: Conquest, cooperation, and the 1959 Antarctic Treaty System. *European Journal of International Relations*, 27(4), 995–1019. <https://doi.org/10.1177/135406612111033889>

About the Author



Erdem Lamazhapov is a PhD research fellow at the Fridtjof Nansen Institute and the University of Oslo. His research focuses on China–Russia relations and China's role in the Arctic, including its great power ambitions and initiatives such as the Polar Silk Road.