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No Game Studies on a Dead Planet

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Abstract

This article highlights the interrelated crises that the games industry, its digital game consumers, and the academic field of game studies are embedded in and responsible for reproducing. By couching our analysis in Marxist, feminist, anti-fascist, and anti-imperialist understandings of how our social relations arise from the historical-material basis of society, we identify several different conditions of modern digital games that everyone working in and around games should confront and take seriously, especially regarding contemporary and future impacts and restrictions on the type of research and education we are able to conduct. These crises emerge from social and economic structures including imperialism, racism, militarism, fascism, and patriarchy. To better confront them, we broadly define the causes from which the morbid symptoms we witness arise in primarily Western societies and how they manifest in the games industry, its consumers, and its academic institutions. Based off these aspects, we extrapolate their trajectory in how they will change and adapt to the future of games and of their study, as the ecological and social crises intensify and reverberate. This allows us to propose potential strategies for radically confronting and potentially overcoming the looming crises related to war, patriarchy, white supremacy, famine, destitution, fascism, and climate apocalypse.

Keywords

Games; patriarchy; imperialism; fascism; crises; capitalism; white supremacy; global warming; climate change; border; immigrants; games industry; video games; surveillance; military; police; prison; game development; academia

As the world faces multiple unprecedented crises in the form of wealth inequality (UNDESA, 2021), climate catastrophe (Ripple et al., 2023; Xia et al., 2022), calls for war and military escalation (Davis & Ness, 2021; Foster, 2021), and repressive attacks on minority groups, the problems we face in the game industry and its academic study might seem like unimportant concerns distracting from bigger, more serious problems. Indeed, instances of scholarship addressing the future of game studies

(Bjørkelo et al., 2023; Chess & Consalvo, 2022) overlook or ignore fundamental existential crises such as climate apocalypse, as if researching, teaching, and developing games can be divorced or made independent from such a reality. Our article therefore looks to provide a service to the field of game studies by pulling together a careful and (more or less) comprehensive overview of how, and where, game studies scholars concerned with these dilemmas might begin to make sense of them in relation to their own teaching and research on/with games, and be able to more accurately address the societal problems that the field of game studies is part and parcel of. Whether we are talking about the intensifying exploitation of labor throughout the games industry production chain, the fostering of fascist ideology within communities of digital game consumers, the environmental consequences of the production process and of the waste videogames produce, or any of the other issues we often identify with games as an entertainment form; we are in fact talking about many manifestations, specific to our field and the industry, of the very same capitalist contradictions that are at the root of the major crises of our era. Therefore, in order to better understand the future of game studies, it is our goal to bridge specific issues in game studies with broader societal crises. In our own professional experiences as teachers, game workers, academics, and organizers in Canada and Northern Europe, we are faced with the reproduction and reinforcement of the systems responsible for these crises which call to be addressed at a material level.

We present this article in the spirit of generosity and care and as a rallying cry. Our goal is to connect multiple strands of scholarship as a means of illuminating where game studies stand in relation to dilemmas that critical game scholars ought to start attending to more deliberately. We do so by envisioning the crises in question through five different ‘thematic areas’ that draw out what we believe to be under-mentioned topics within Anglophonic conversations on digital games. Rather than committing to an exhaustive analysis beyond the scope of this article, each thematic area serves as a spotlight on significant problems and their causes, where we claim they derive from the material base of how digital games proliferate. At first, we focus on capitalist imperialism as the underlying global economic structure. We then identify how these issues are connected to many of the current trends that exist within the games industry, including the consolidation and monopolization of the industry under a handful of large multinational corporations and platforms, poor working conditions, and a resulting rise in global efforts towards unionization, and ongoing collaborations with the US military industrial complex. We go on to discuss how the games themselves reflect this economic base by contributing to the rise of white supremacy, militarism, fascism, and patriarchal norms in Western societies. More importantly, we propose what we call “climate apocalypse” as an essential and unavoidable condition that intensifies the crises. These dangers lead us to reflect on how game studies and academia more broadly are facing major challenges that severely limit the critical potential of research and teaching. Subsequently, we identify to what extent these crises will develop and intensify over the coming years assuming things continue the way they are. Finally, we propose possible avenues of miti-

gating the resulting harm. Thus, this article analyzes these contradictions by identifying how they surface in the domain of digital games and extrapolating on their future trajectories for game studies to better equip and encourage scholars and students with the material considerations to take these existing and future crises seriously in their own research and teaching.

Thematic area 1: The imperialist structure of the games industry

The products that game studies most commonly analyze (Frome & Martin, 2019) derive from the current global economic structure of the games industry. This is seen by some political economists as '21st century imperialism', i.e., the economic and military domination of nations in the periphery through unequal exchange and the exploitation of workers (Smith, 2016). Twenty-first-century imperialism is marked by primarily 'Western' nations functioning as the 'imperial core' which exploits workers from China, India, Malaysia, Pakistan, Indonesia, and other colonized countries in the periphery that have been broadly referred to as the 'Global South' (Patnaik & Patnaik, 2021; Suwandi, 2019). This means that there is a large transfer of wealth from workers in the periphery to people living in the core. This parasitic relationship is upheld by economic, legal, and military means by the imperial core countries, primarily the US (Amin, 2018).

In the games industry, imperialism is apparent when gaming hardware is largely produced in the Global South (Kline, Dyer-Witheford, & Peuter, 2003), then sold to consumers with disposable income in the Global North, before being discarded as toxic e-waste in the Global South (Abraham, 2022), only to be replaced by the 'next generation' of gaming hardware, which is marketed as better and more desirable (Bulut, 2021).

Labor adds surplus value to the product along each step of the production chain, while the bulk of surplus value is extracted in the form of rent by the monopolies that dominate the global market, such as Apple, Microsoft, Google, EA, Activision Blizzard, Valve, Tencent, Sony, and Nintendo (González-Piñero, 2017; Kerr, 2017). Many of these dominant tech platforms have consolidated economic power over distribution as multi-sided markets (Jin, 2015; Nieborg, Young, & Joseph, 2020; T. Mukherjee, 2023). Similarly, the development of big budget, large-scale 'AAA' games have become so complex and labor-intensive that they require lower-paid workers to meet market expectations, so we see many examples of large-scale outsourcing of asset creation and support studios in low-wage countries such as India, Malaysia, Vietnam, and China (Thomsen, 2018; Zeiler & S. Mukherjee, 2021). In turn, the companies enjoying these profits earned from both hardware and software outsourcing are primarily located in the US, Japan, and increasingly China (Newzoo, 2023), as also evidenced in the games industry's history of having almost exclusively US-based companies as the top ten most profitable and biggest companies. Further profits

are extracted through state-granted monopolies over intellectual property developed by the studios who produce the software running on these devices (Baeza-González, 2021). Thanks to this system, game workers in the imperial core are able to make their 'dream game' (Bulut, 2020) at the expense of domestic and international stratifications of labor.

This economic base has entailed that as the games industry matures, competition increases, resulting in overcrowded markets, higher expectations in terms of quality and scope, and declining prices for games and hardware relative to inflation. These are already observable in today's industry. This in turn leads companies to put more pressure on workers to work harder and faster, lower wages and reduce benefits, skirt around environmental or labor regulations, and increase automation and outsourcing, in order to counteract rising production costs and maintain high profit margins. Rising barriers to entry and an increasingly tight market mean that smaller companies struggle to compete against larger, more established multinationals that can benefit from economies of scale, access to cheap labor, and globalized supply chains, making it more likely that these smaller companies will either go bankrupt or be bought out by larger competitors. The result is the trend towards monopolization and consolidation of capital, which has become particularly pronounced over the last few years, as we can see with Microsoft's acquisition of one of the largest video game companies in existence, Activision-Blizzard-King (Sinclair, 2023), while game publishers' otherwise diverse portfolio of multiple products gets consolidated into one or two mega-blockbuster projects, such as the highly labor-intensive Call of Duty (Activision, 2001) by Activision-Blizzard or FIFA series (EA, 1998) by EA.

At the same time, due to this reliance on this imperialist system, the games industry is also affected by the escalating trade wars against China through US-imposed tariffs and sanctions that specifically target China's information-technology industry—as perhaps best seen with Huawei and their 5G technology (Rolf & Schindler, 2023; Xu et al., 2021; Zhao, 2021)—but also other components necessary for driving IT research and innovation relevant to digital games, such as the 'CHIPS act' that brings semiconductor production to the US via trade agreements with Taiwan (Wood, 2022). With more restricted access and unstable financial relations to Chinese manufacturing and businesses, the games industry would likewise suffer in the short term from the demonization and provocation of China, due to the severe economic effects on the value chain that the games industry enjoys and profits from.

Thematic area 2: White supremacy, militarism, and manufacturing consent

Due to this imperialist exploitation of workers and profits from the global supply chain, the games industry itself has a material stake in upholding the status quo. This means that the most labor-intensive and costly projects that the games industry

puts into market reflect values that justify this. For instance, major commercial digital games have historically facilitated racist and orientalist ‘simulations’ (Höglund, 2008; Šisler, 2008), and they continue to do so today (Fickle, 2019; Patterson, 2020; S. Mukherjee, 2017). In many commercial games the peoples in West Asia are reduced to harmful racist stereotypes and dehumanized to morally disengage players taking on the role of Western military soldiers (Pötzsch, 2017). Games function as part of the military-industrial-media-entertainment network (Pötzsch & Hammond, 2016), where their Western military propaganda have run alongside and reinforced racist understandings of peoples in Iraq, Afghanistan, Syria, Libya, etc., in the wake of 9/11 and the explicit military ‘interventions’ undertaken by the West (Hammar, 2019). Major commercial game development companies have collaborated with the US military to create simplistic military shooters (Schulzke, 2017) where we have seen the interchanging role of North Korea, China, Russia, the ‘Middle East’—or whoever else the ‘rules-based international order’ has designated as the Official Enemy—serve as the primary enemies to slaughter and overcome through Othering and moral disengagement factors (Hartmann, 2017). Major game companies such as Microsoft and Unity have also directly worked with the US security state to develop training software, AI, augmented reality headsets, and other tech infrastructure (Cox, 2022; Novet, 2021), while some game companies have collaborated with arms manufacturers (Hammar & Woodcock, 2019), and the US military has been using Twitch and esports as recruitment tools (Gault, 2020).

While much of the industry is aligned with the US military, high sales of the *Call of Duty* (Infinity Ward, 2004) and *Battlefield* (DICE, 2002) series also indicate that a majority of Western game consumers massively enjoy military shooters, which have been the best-selling game genre in the North American market for over a decade (Desatoff, 2020). While this does not necessarily mean US consumers are ideologically aligned with the military propaganda, it still indicates that there is a demand for military games in Western markets. This demand arguably ties into Western ‘gamers’ (Shaw, 2013) material interest in maintaining US imperialism, as it grants them an ‘imperial mode of living’ (Brand & Wissen, 2021; Hammar, 2020) and access to cheap consumer goods. The significance of *Call of Duty*’s role as military propaganda is underscored by the example of the live-service game *Call of Duty Warzone* (Raven Software & Infinity Ward, 2020) utilizing the eastern parts of Ukraine for several years (Gerencser, 2020) as the virtual playground for its players to participate in a ‘battle royale’ survival game without paying heed to the ongoing war in Donbas that, in the years leading up to the Russian invasion of Ukraine, resulted in 3,106 civilian deaths (OHCHR, 2022). This treatment is indicative of how real-life conflicts are often ignored, naturalized, or reframed in games in ways that align with US foreign policy objectives (Mirrlees & Ibaid, 2021).

Thematic area 3: Fascism, patriarchy, and repression

While popular commercial games reflect the values of its producers and publishers (Bulut, 2020; Srauy, 2017), games also suffer from a deep marginalization of women and gender minorities. In game cultures, organized sexist and white supremacist reaction often takes the form of harassment of women, trans people, sexual minorities, and people of color in gaming spaces (A. Salter & Blodgett, 2017; Cote, 2020; Hammar, 2015; K. L. Gray, 2014; M. Salter, 2017). Animated by their fear of losing their privileged position as the industry's favored target demographic, as well as by broader anxieties about the impacts of capitalist crisis and proletarianization, far-right 'gamers' congregate to silence and harass those who they feel threatened by and ultimately want to exclude and/or terminate (Condis, 2018). The organized reactionary 'gamers,' as well as some workers and bosses in the industry who are aligned with such ideology, are a product of the social relations that privilege anglo-phonetic white heterosexual cis-men with disposable income (Fron et al., 2007). The game industry's decades-long reflection and reproduction of cis-patriarchy and white supremacy attract and cultivate the existing reactionary segments in society (Jennings, 2022; Wells et al., 2023), as such groups have since the 1980s and 90s felt that 'their' games are white patriarchal spaces that they had virtual and social power within (Bulut, 2020; Taylor & Voorhees, 2018).

We consider these reactionary and patriarchal tendencies in games to reflect the broader societal crises of reactionary political parties gaining widespread popularity and acceptance (Jong, 2020). While game studies have tried to analyze and pre-empt the reactionary tendencies through Black, Brown, feminist, and Indigenous research (Kafai, Tynes, & Richard, 2016), the broader societal tendencies of reaction are gaining increasingly more political and economic power, while the established center is conceding if not entirely embracing the same sort of reactionary and repressive policies (Ali, 2018). These political movements share similar repressive political programs as the movements we have seen in games and they are particularly evident in the imperialist core, as well as parts of the semi-periphery, where at least some portions of the population benefit from imperialist exploitation and oppression (Cope, 2015). The growth of fascist reaction is also visible in the increasing attacks on reproductive and trans rights, which have frequently been accompanied by fear-mongering about declining 'white birthrates' and immigration in the imperial core (Ross, 2016). In our view, it is therefore productive to link an understanding of the reactionary segments in games culture to broader societal trends as they both share similar values and employ similar political strategies to gain political power and repress their opponents.

Thematic area 4: The climate apocalypse

While imperialism, white supremacy, and patriarchy are features of the global games industry, the production process of resource extraction, consumption, and

pollution is seemingly an unavoidable condition of contemporary digital games. As GHG emissions increase and time to act is running out, the games industry is emblematic of our economic system's contradictory lemming-like run toward death. The production of hardware and energy costs of distributing and playing software are big emitters of GHG. For example, the environmental impact of mining the rare earth minerals required to produce the state-of-the-art hardware to render pristine graphics account for tons of CO₂ in production and extraction costs (Gordon, 2019). Despite pledges to greener solutions from major companies like Microsoft, Apple, and Sony (de Zwart, 2022; Dyer-Witthford & de Peuter, 2021), their implementations are at best prime examples of greenwashing (de Freitas Netto et al., 2020), where their initiatives have more to do with branding and marketing rather than reducing their GHG emissions in their production and supply chain. It is therefore also incredibly jarring to see the games industry and surrounding media journalism innocently talk about a 'future' with newer console generations and so-called 'cloud gaming' that relies on big data centers, as these techno-fetishistic projects to build new servers, consoles, and phones are antithetical to human survival (Monserrate, 2022; Turnbull et al., 2023). The stable ecosystem that underpins our civilization does not allow for more growth and more consumption (Heron, 2023), yet the Anglophonic conversations around 'next-generation' gaming hardware continues unabated. The games industry is without a doubt part and parcel of the same unequal ecological catastrophe that human civilization is heading toward, and it is therefore imperative to imagine and build alternate ways of play and games that are entirely dissimilar from contemporary forms of electronic, digital games (Thierry et al., 2023).

While there has been some serious engagement with the relations between games and climate change (Abraham, 2022), much effort in the industry is concerned with a neoliberal bias on reducing 'carbon footprint' by making profit-oriented businesses aware and beholden to public reporting and corporate-social-responsibility initiatives that at best amounts to marketing their own brand (Sony Interactive Entertainment, 2023) or making unrealistic, idealistic promises, such as Microsoft's objective to be carbon-neutral in 2030 (Microsoft, 2023). Concurrently, a humanities strand of academic environmental study mostly concerns itself with how and what digital games as texts tell players about our environmental collapse (A. Y. Chang, 2019), as if a semiotic analysis of games or making consumers more aware through games is the only thing that is needed to account for the conditions that give rise to the climate crisis that we are in (Maher, 2020). Instead, what our present situation calls for is an actual material account of the environmental impacts of digital games in order to subvert and dismantle the notion that games are divorced from the crises we are in. Our call for more materialist engagement with the study of games motivates the subsequent section on the crises in academia and game studies.

Thematic area 5: Academia and game studies

The impacts of capitalist crises also extend into the university, as those who teach and research games professionally through their work in academia are increasingly challenged to maintain their job stability with deep precarious work conditions that exploit students, teaching assistants, PhDs, postdocs, adjuncts, and even tenured associate professors for unpaid labor (K. Gray & Chapple, 2017). As with the other branches of what Barbara and John Ehrenreich (2013) call the ‘Professional Managerial Class’, academics have over the last decades become increasingly split into, on the one hand, a precarious and increasingly proletarianized class of graduate students and adjuncts who perform the great bulk of the research and teaching labor at universities, and an ever-shrinking number of secure academics who have gradually come to serve a purely managerial function: signing off on funding requests, determining job offers, and overseeing the exploitation of the first group’s labor. This precarious condition increases the likelihood of worse research that is less independent and more biased to not challenge any prevailing political narrative in fear of losing one’s job, especially at times of deep propaganda and manufacturing consent (Chatterjee & Maira, 2014). This means that game studies is similarly restricted in what is allowed to be argued and not argued at conferences, in journals, in monographs, and in meetings, and as a result, important perspectives on climate change, fascism, and imperialism are filtered out from contributing to the body of research and teachings on games. While excellent critical scholarship and activism do manage to exist—some of which are cited in this article—we argue that such critical work exists *in spite of* the structural limitations and filtering of critical academic work.

At the same time, academia functions as an embourgeoisement of those who do manage to rise through the ranks and can afford to fly around the world and attend expensive conferences, while lower and usually racialized social classes clean and manage the facilities that make the academic factory run. This is reproduced globally, where the ‘established’ game studies are located in the imperial core, where institutions, conferences, networks, and journals are led by white, Western people (Butt et al., 2018), so that those in the Global South rarely if ever get to speak about research on games and play but are instead underpaid and exploited by profit-driven academic journal publishers, as well as the racial and class stratification between research institutions and publicly funded degrees. The contemporary university as an institution exists to reproduce white supremacy and capitalism (Chatterjee & Maira, 2014); from the grading systems that divide students according to their means and reframe these socially-produced differences as an inherent quality of the individual (i.e., merit), to the research that feeds directly into the military industrial complex and corporate profits (Slaughter, 2009), to the speculation in the housing market (Baldwin, 2021). Academia appears to center individual success and careerism, based on the promise of escaping working-class conditions for those few individuals who are willing to ‘put in the work’ (Grande, Tuck, & Yang, 2018).

While also getting defunded and dismantled by austerity policies by governments across the political spectrum, universities as supposedly 'free' research institutions are also heavily under attack when it comes to disciplines and fields that deal with counter-normative areas such as migration studies, critical race theory, gender, and queer studies, just to name a few. Powerful politicians and privately-owned news media manufacture controversies to harass and suppress scholars and students working with topics on sexuality, gender, colonialism, and racialized groups (Lean, 2012). This also means that those who study games are restricted in their ability to study certain topics that are targeted by reactionary elements.

The move to racialize others and militarize border control (Walia, 2021) also has significance for scholars who are not white cis men or who come from other countries. This conflicts with academia's expectation to attend conferences, which inadvertently requires discriminatory visa requirements for those hailing from primarily racialized countries, alongside the experienced discrimination for such scholars and students in the Western country in which the conference is taking place. As the crises deepen further, politicians and media will call for even more discriminatory attitudes and measures; it is therefore crucial for game studies scholars and students to mitigate these effects within their means by, for instance, doing collaborative online work over secure communication channels, as well as taking an explicit stand against bigotry and discrimination against already marginalized scholars and students, as for example with the persecution of Chinese students and faculty (Chen & Wu, 2021).

Thus, we have identified several strands of challenges for academia and—within it—the study of games. The ideological attacks by media and politicians against counter-normative research, coupled with the defunding and privatization of schools and universities, have a severe impact on what topics and questions are explored, while the embourgeoisement and structural discrimination reproduce certain classed, racialized, and gendered perspectives on questions around games. It is therefore important to keep these in mind when understanding what game studies are and could potentially be.

Extrapolating the future trajectory of digital games and their study

Having identified the different crises, we now proceed to extrapolate the future of digital games and the institutions producing and studying them. These estimates are based on our own materialist analysis and past experiences with the dialectical movements of capitalist society. While these extrapolations could likely be dismissed, we also see them as views couched in education and expertise within the subjects of political economy, environmentalism, game production, and academia, and as views that are rarely expressed in game studies. We argue that as the general crisis of the capitalist mode of production continues to intensify, the repercussions

will be expressed throughout the game industry, its consumer communities, and academia.

We envision that the limits to economic growth will make the crises be felt more sharply, and capital will attempt to innovate new ways to overcome them, usually to the detriment of game workers and of the working class in general (D. Harvey, 2018, p. 416). The future is thus one where we can expect ever larger and more concentrated masses of capital desperately looking for investment opportunities that can beat a historically minimal rate of return on investment (D. Harvey, 2018, p. 416), while ecological catastrophe sharpens the contradictions (Heron, 2023). Game companies and hardware manufacturers will compete to attract this capital and will need to find ways to adapt and transform production to prove they can generate a profit for investors and for the game industry to continue growing in a world marred by ecological disasters and increased militarism and fascism.

A future attempt at maximizing profits could potentially be technical developments to decrease labor costs. The game industry might start to rely more and more on productivity-enhancing tools, possibly making use of new machine learning technology to generate content at a cheaper labor cost, as we have seen in the struggles between creative workers and capitalists over so-called AI. Workers, of course, will see their negotiating position suffer and their working conditions worsen because of automation, as their skills become devalued on the market and their situation becomes more precarious. While AI will likely not replace game workers entirely, we imagine that it will force them to compete with increasingly advanced technologies and push many into more precarious, lower-paying, and more menial jobs. This combined with the increasing costs of education and living will increase barriers to entry for higher-paying jobs, likely leading to a further stratification of the workforce along the lines of race, gender, nationality, and family background. While this may be countered to some extent by the growth of organizing in the industry, capital will continue to put downward pressure on wages and repress efforts to resist exploitation as long as capitalism is intact.

Practices such as crunch and mass layoffs at the end of game production projects will continue to be important for the industry, as they serve to maximize the amount of labor time and therefore surplus value that can be extracted from workers, i.e., to increase the rate of exploitation. In general, we will likely see an intensification of the class struggle over wages, working hours, and job security, as game workers respond by organizing to defend their rights and to struggle against the growing efforts to intensify their exploitation. This therefore also means that union-busting attacks and anti-union rhetorical strategies from management throughout the industry will become more common, and more serious (Keogh & Abraham, 2022; Ruffino & Woodcock, 2020; Weststar & Legault, 2017). Labor organizing is very new to the games industry (Woodcock, 2019), and in the same way that game workers have had to learn all about it from the ground up in the last few years, bosses of the industry who had no prior experience dealing with serious labor unrest have also

been learning the lessons and dirty tricks that managers in other industries can be very familiar with (Grayson, 2021).

The ongoing monopolization, platformization, and consolidation of capital in the games industry is unlikely to slow down as the crisis intensifies (Dyer-Witheford & de Peuter, 2021; Foster & McChesney, 2012). The number of mega corporations that dominate the industry today will shrink even further, reducing the available options for workers seeking employment in games. As we have seen in recent years, this is likely to result in large-scale layoffs as new companies are acquired for their IP or other assets, and then hollowed out or restructured in the name of 'corporate efficiency' (Carpenter, 2023). As we discuss in more detail in the next section, however, this may also open new opportunities for labor organizing by bringing together large numbers of workers who were previously divided into many small workplaces under a single employer, as seen with Microsoft's acquisition of Activision-Blizzard-King.

Similarly, we imagine that larger commercial games will continue to function as a propaganda vector for justifying the increasing military escalations against resource-rich countries and economies that the US and its allies want to bring to heel. It is likely that the portrayal of the Official Enemies of the West in future games will run parallel to this broader demonization that serves to justify the contemporary yellow peril campaign targeting countries such as China, which became especially pronounced since Obama's pivot to Asia in 2012 (Foster, 2021). Considering how digital games traditionally employ Western-centric portrayals of non-white peoples, cultures, and nations, it seems likely that the future of digital games will continue to push forward the idea that this month's Official Enemy of the West should be dehumanized, monsterized, and economically and militarily subjugated by the West.

As the crises that we have outlined in this article deepen further, the game industry will likely increase its catering to a segment that solidifies its values as a patriarchal, white supremacist, imperialist cultural industry. As Lana Polansky (2018) and Brendan Keogh (2018) have argued, the game industry indirectly benefits from the organized harassment campaigns against its workers to keep them silent and fall in line, such as when women workers complain about misogynistic working conditions and demand more equitable pay, but in response are harassed into silence and submission by angry consumers. Bosses, owners, and investors implicitly benefit from this harassment, as they can increase the degree to which they extract the surplus value from exploited labor. This implicit, mutually beneficial relationship between reactionary gamers and the game industry's bourgeoisie mirrors the analysis of fascism where the capitalist class enjoys the violence by reactionary movements to suppress organized, racialized, gendered, and other marginalized groups from demanding better living and working conditions that would otherwise decrease the potential profits that the capitalist class enjoys (Zetkin, 1923).

From this analysis, we imagine that the games industry will repress its workers further by also catering even more to chauvinistic undercurrents and try to maintain

the dominant reactionary worldview against marginalized groups that the games industry materially benefits from subjugating and exploiting both domestically and globally. More specifically games have played and will continue to play a role in the subjugation of women and gender minorities, via the games industry's gendered structuration, its depicted objectification of women, its exclusion and erasure of queer and transwomen, and the reliance on cheap, exploitable labor by *dagongmei* in the hardware assembly factories (Fuchs & Qiu, 2018).

Academia and more broadly education in capitalist societies will be impoverished if not entirely eradicated in favor of private, profit-driven schools and universities that will likewise work to extract as much money from its pupils as possible, while concurrently overworking and exploiting its teachers and researchers to the full extent. The ongoing defunding of academia, the proletarianization of its precarious workforce, the increase in administration and surveillance, the highly funded, organized attacks on experts and topics around gender, sexuality, and race, etc., speak to how terrible the state of free research already is in the educational institutions, and we imagine that such endeavors will be made impossible, just like public healthcare and other public commons that capitalism needs to appropriate to survive its internal contradictions.

Finally, we can expect the relatively large number of small independent producers in the industry who can be understood as practicing a more 'artisanal' form of game software production to be the first to be outcompeted and fail as the consumer market becomes increasingly saturated through overproduction. As Marxist analysis has shown, petit-bourgeois business owners who are threatened with proletarianization and are desperate to maintain their position above the working class, as a group, form the historical mass basis for fascism (Zetkin, 1923). There is thus a strong possibility that this segment of the industry might become increasingly reactionary and form a powerful anti-worker force within the industry as they fight tooth and nail to keep their poorly performing businesses alive in the face of dominant, monopolistic tech companies, at the expense of their employees and of general employment standards.

Our above extrapolations serve as a heuristic to better account for the future challenges and crises that game studies scholars and people working with and around digital games are impacted by in their study and production of games. The historical trajectory we have been on in the last couple of centuries speak to these deteriorating societal developments that impact what it means to study, develop, and play digital games. Game studies scholars and students will all be impacted by these developments, and our purpose is to draw out how the future intensification of labor exploitation, climate degradation, military escalation, fascism, and knowledge repression are intertwined with digital games.

What is to be done?

So far, this article has provided five different investigations on how games as an industry, as cultural products, as material environmental objects, and as subjects of institutional study are implicated in multiple crises that oppress and harm people across the world. Yet while our observations are primarily negative, we also want to offer a positive argument on potential avenues of intervention. At first, this analysis of the present situation and of the world's trajectory might seem like it leaves little room for avoiding the worst outcomes. However, it is also important to remember that we are dealing with manifestations of an unprecedented crisis, which in turn reveal how unstable and contingent the system we are living within really is. In such times of instability, what may have previously appeared to be immutable now comes across as changeable.

For large-scale social change to be possible, two conditions must be present: There must exist a historical agent with the potential power to enact such a change, and the change must be in this agent's material interest (Marx, 1990). Does such a historical agent exist today in the games industry? The business owners and shareholders of the industry have a lot of power over it and can be expected to be able to influence its trajectory, but their material interest lies in the perpetuation of the capitalist mode of production. In fact, the developments we have been discussing are all happening as a direct consequence of the material interests of this class being pursued.

The workers of the game industry and in academia are the ones who stand to materially benefit from the sort of progressive social change we are envisioning. But do they have the power to enact it? As we showed, the organizing in the games, tech, and entertainment industries is a promising sign that broader structural changes may be on the horizon. Over the last five years, the first games industry unions have formed in Korea, France, Sweden, Finland, the UK, Australia, the US, and Canada (Game Worker Solidarity, 2021). Even more promising, many of these workers have been organizing across borders and classifications, fighting back against the industry's attempts to divide workers based on nationality and race, as well as the shift to precarious 'freelance' contracts and third-party outsourcing (Carpenter, 2023). For example, Google employees have organized alongside contractors to win improved wages and benefits for TVCs (temp, vendor, and contractor colleagues). In 2021 freelancers at Paizo, a tabletop role-playing game company, went on strike to demand that management recognize the union formed by the company's employees. Not long after, workers at Video Games formed the first certified union for digital game workers in North America, including both employees and contractors from Canada and the US in the bargaining unit. This kind of international solidarity directly undermines capital's ability to use existing border regimes and neoliberal management tactics to suppress wages and increase exploitation, while also pointing to a possible future in which these social structures have been completely dismantled.

Building international solidarity in the games industry and academia is no easy task in a world divided by imperialism (Hammar, 2022). It is therefore important to steel ourselves against othering forms of representation and call out and push back against narratives that serve only to further empower our own ruling class and enable war and capitalist exploitation overseas, as we have most clearly seen in the brazen genocide in Palestine that began in October 2023 (OHCR, 2023). Given the crises we have outlined in this article, those of us living in the imperial core should struggle to hold our own governments accountable, demand peace, and do everything we can to disrupt 'business as usual' by supporting anti-imperialist labor organizing and other international working-class movements in the games industry, academia, and beyond.

While the crises outlined in this article can appear overwhelming, scholars and students can remember that the difficulties we face are experienced in place and can be acted upon locally and specifically (A. Harvey, 2019; A. Harvey & Fisher, 2015; E. Y. Chang, Gray, & Bird, 2021; Poitra et al., 2021; Schoemann & Asad, 2016). Here, we are particularly thinking that those still with security and affluence in game studies offer their analytical and dissemination skills to activist and labor organizations within the areas they would benefit from. Rather than coming to these organizations with a predefined research plan, reaching out and asking what specific research questions they would like answered and how the academy's resources can best be leveraged to help support their work would be a good starting point. Offering free access to meeting spaces, research materials, office supplies, funds, and equipment can also be useful ways to provide concrete, material support. Moreover, by virtue of white supremacist societies, media footage of white academics going to protests and being beaten up by occupying police forces does make an impression on on-lookers and those who are neutral.

Just as imperialism and chauvinism cannot be overcome within the confines of a capitalist system, addressing climate change will require a much more drastic shift than changes in individual consumption patterns or so-called 'market solutions' (Ajl, 2021). As the greatest contributors to climate change, those of us living in Western imperialist societies will have to radically change our approach to work, consumption, and growth, breaking away from an economic model that prioritizes short-term profit over long-term survival and sustainability (Hickel, 2021, 2023). This can and must be done in solidarity with Indigenous movements fighting for liberation within settler colonial states like Canada, Australia, and the US, who have long been at the forefront of struggles against capitalism's drive for resource extraction, overproduction, and its impacts on the environment.

Change is possible the same way the working classes have always made change; by threatening to withdraw labor, physically blocking access to key infrastructure, or otherwise putting lives and bodies on the line to win our demands. The ruling classes are not deterred by angry letters or a meek public march or anti-capitalist messages in games (Woodcock, 2019). We can only truly understand the world by struggling to

change it and finding out what works and what does not (Marx, 1845, p. 13). We do not need to watch protests and direct action on our screens: It is actually possible to go there and take part in them. This combination of theory and practice is a scientific methodology and one that we can improve as we regain the experience and knowledge that has been lost through decades of anti-communist repression and the decline of organized labor. Whether we are discussing labor organizing, anti-colonialism, feminism, climate justice, anti-fascism, anti-gentrification, police and prison abolition, or the peace movement, workers in the games industry and academia should be engaged in the struggles we are working with, not just theorizing them.

Conclusion

In this article we have identified the capitalist foundation behind the deepening societal crises alongside the different morbid symptoms in relation to imperialism, white supremacy, militarism, climate apocalypse, fascism, and academia. As we argue, the production, consumption, and academic study of games are very much and always have been a branch of the same system of oppression and exploitation that has led us to this point, and it is by understanding games as such that we identify the future of digital games and their study. We pulled together an eclectic range of critical scholarship in a way that functions as much as a literature review of issues critical game scholars ought to start attending to more deliberately, as it does a rallying cry for game scholars to not ignore or exclude fundamental issues of justice that are intertwined with digital games. This enabled us to understand the future of games and game studies based on the existing capitalist relations of production and an analysis of how these fundamentally unstable relations will continue to evolve as the various crises intensify. We argue that the tendency toward inequality, exploitation, and discrimination that has underpinned the proliferation of commercial digital games across the world and their academic study—historically primarily in North America, Europe, and Japan—is fundamental to the industry's capitalist mode of production, and that these trends will persevere as long as this mode of production exists. That said, by analyzing the industry's current trajectory we can also shed light on possible ways out of the crisis of capitalism and discuss how the working class as a historical agent can radically transform society and the social relations that give rise to the capitalist crisis.

Our argument establishes that games do not exist in a vacuum, as there are material realities underlying their existence that in turn reproduce the very same causes behind the societal crises we face. These are: The imperialist structure that the games industry enjoys and benefits from; the chauvinistic products and their contexts of production that shore up and reinforce the dominant understanding of people of color, sexual minorities, women, and countries targeted by Western imperialism; the extractivism and energy usage that the games industry and its media cultures entirely ignore or avoid taking seriously; and the cultivation of fascist undercurrents in

and around digital games. In turn, we identified the possible future trajectories of these aspects in terms of how the games industry, its communities, its media, and its researchers might adapt to a world in crisis. Yet at the same time, we have offered building collective worker power through organization as one way to effectively confront capital and achieve social change. Critically, we must not ignore or overlook the pressing issues of our time if we are to seriously address the future of game studies and human civilization as we know it.

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