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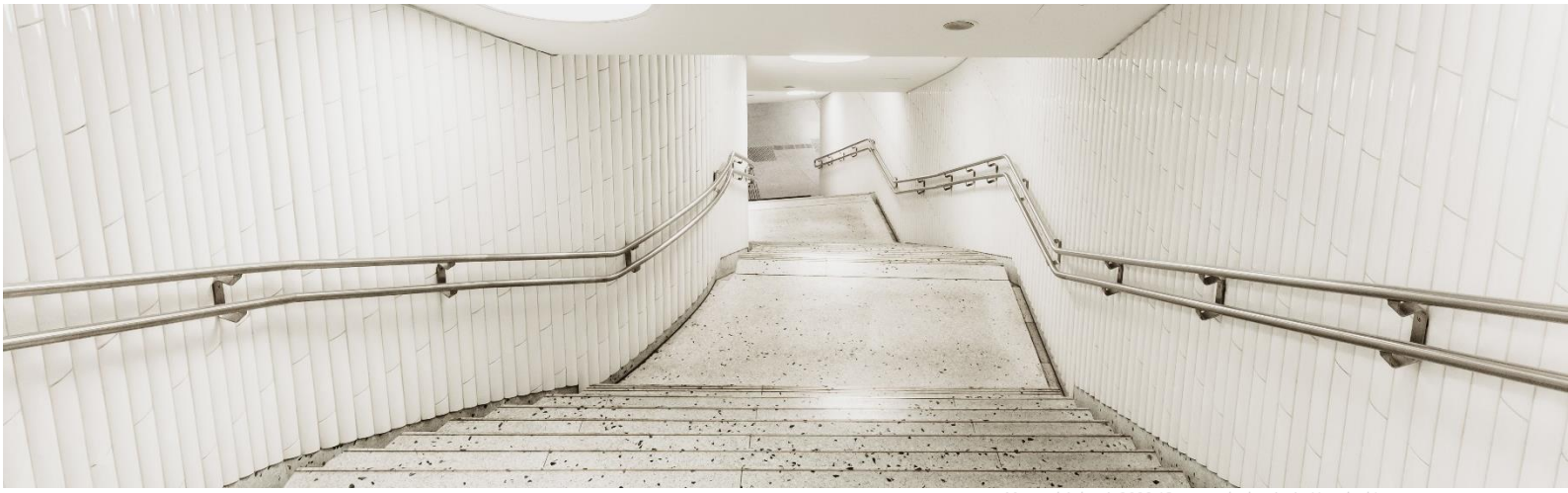

Masood Aslami, 2023 (@masoodaslami, via Unsplash)

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Vol. 14, No. 1 (2023)

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Editorial

Futures

Holger Pötzsch and Kristine Jørgensen

Eludamos: Journal for Computer Game Culture
Volume 14, issue 1, pp. 1–7

Editorial
Futures

HOLGER PÖTZSCH AND KRISTINE JØRGENSEN

> History knows many periods of dark times in which the public realm has been obscured and the world become so dubious that people have ceased to ask any more of politics than that it show due consideration for their vital interest and personal liberty.
>
> Hannah Arendt, *Men in Dark Times*, 1968/1995, p. 11

We started our editorial of the 2022 issue of *Eludamos* with the statement that "the past years have given us little to be hopeful about" and continued to ask whether, or not, issues such as "exploding global inequalities, ecological and economic crises, austerity politics, de-democratization, pandemics, and wars" still allowed us to play (Pötzsch & Jørgensen, 2022, p. 1). Who would have thought that, one year later, the world would look even worse with most of our Western democracies blindly following their imperial hegemon now not only remaining speechless about, but even actively supporting the merciless bombardment and starvation of more than 2 million civilians who have lived under a tight siege for more than a decade and are now deliberately deprived of fuel, electricity, food, medicine, and even water. No act of terror, however cruel, can justify the collective punishment and murder of civilians. Every democratic politician worthy of that name should know this. And yet, here we are, again forced to ask this same question: *Given our current dark times, is there still a future for games and play?*

In the previous editorial, we turned to Johan Huizinga (1938/1955) for advice who asserted a civilizational quality of play. According to him, play enables us to voluntarily submit to rules that limit our own conduct and invite critical self-reflection and introspection. This, we believe, constitutes a necessary alternative to a self-righteous glance from an allegedly unassailable moral high ground pretending to stand for universal values. This year, despite the bleakness around us, we will look to the future—or rather *futures*—as the title of this editorial suggests.

Formulated in 1939, on the eve of the slaughter of the second world war and its industry-style extermination of human beings and the unprecedented cruelty of the Holocaust, Bertolt Brecht famously wrote in his poem *To Posteriority*:

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https://doi.org/10.7557/23.7324

> What times are these, in which
> A conversation about trees is almost a crime
> For it implies silence about so much wrongdoing![1]

Given the condition of the current world, can we still have a conversation about games? Can we still play without at the same time remaining silent about surging imperial wars, oppression, and the abuses and exploitation of both humans and the natural world for the sake of further increasing the wealth of the already hyper-rich? Can we still picture a future that is better than the past—for all?

We believe that we can, and indeed *must*, do this and that continuing to play might be one component in this struggle. These acts of play, however, have to question ourselves and our current condition. We need to critically reflect on the games we play, their content and context, as well as their ramifications. This, we believe, can constitute one of the possible futures of games, play, game development, and game studies—and an important one.

Not least scholars such as Max Horkheimer (1937), Stuart Hall (1977), and Mieke Bal (1999) have repeatedly shown that politics, the economy, and culture are narrowly intertwined. In the cultural sphere values are negotiated and truth-regimes are established and reproduced. Through cultural expressions, we negotiate who we are and who we want to be. Here we create widely shared images of common pasts that predispose the very acts creating our possible futures. This is why we need to take cultural production seriously, including its economic and ecological repercussions—and games particularly so as they are the foremost cultural form of our 'ludic century' (Zimmermann, 2013).

We believe that our current dark moment of history is characterized by an overreliance on dystopic narratives. Given the bleakness emerging around us, we seem more prone to imagine and play the end of the world than to engage in attempts to picture viable, if difficult, ways towards brighter futures. According to Jürgen Habermas, this dominance of dystopia, and the virtual absence of utopia, has debilitating effects on our capacity to imagine the world otherwise. Already in 1985, he wrote: "When the oases of utopia dry up, only a desert of banalities and cluelessness remains" (1985/2019, p. 161). However, the capacity to imagine and (en)act otherwise is key to progressive politics able to mobilize democratic masses for necessary change.

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[1] Bertolt Brecht: *An die Nachgeborenen* (1939). Translation from German by Pötzsch. The poem is accessible in both German and an English translation here: https://harpers.org/2008/01/brecht-to-those-who-follow-in-our-wake/.

While dystopic narratives doubtlessly can serve a (self-)critical purpose, maybe a first important step might be to turn away from currently dominating imaginaries of precluded futures that relentlessly emanate from most of popular culture—including the games industry. One of the editors has diagnosed at a different occasion that this dominance serves a "petrification of politics" that blurs our political vision depriving us of will, courage and collective agency, and locking us into a state of unpolitical hopelessness and despair (Pötzsch, 2023, pp. 19–20). However, we need more than virtual escapist fantasies. We need games that present realistic alternatives to the allegedly unquestionable claims of a "capitalist realism" (Fisher, 2009) that things simply are the way they have to be and that there is nothing we can do. We need to move on and get beyond this impasse—in both thinking and acting.

If we want to get beyond the current post-political situation (Crouch, 2004), we need narratives bringing forth progressive alternatives that inspire action and therefore matter for the real world—and urgently so. We need concrete livable utopias that can unite people in collective struggles for better worlds not only for humans, but for all living creatures on this planet—both present and future. We need such engaging utopian visions of different-worlds-possible that are more than escapist fantasies. And, maybe, games and game studies can help with this—by not only critiquing the present and critically reflecting the ultimate contingency of our own values and norm systems, but also by devising the tools required for a mobilization of our imaginative and organizational potentials in the name of reinvigorating our comatose democracies. Maybe games and play can indeed facilitate a mobilization for better futures?

With the frames adopted above, we place our editorial within the domain of Critical Future Studies (Goode & Godhe, 2017, p. 109)—a field that aims at contributing to the creation of a "futural public sphere" that can help us "challenge a prevalent contemporary cynicism about our capacity to imagine alternative futures while trapped in a parlous present". Thereby our aim becomes more than identifying new technological and industry trends or summarizing current advances in the discipline. As Nick Taylor points out in his contribution to this issue, we cannot "hold out much hope for the field of game studies if it is fixated, however critically, on whatever new objects the games industry decides are its future". Neither do we intend to reiterate neoliberal fantasies of games as technological quick-fixes capable of making people healthier, more prosocial, or better at collaborating, and thus fitter for relentless competition on the ubiquitous arenas of boundless capitalism. Instead, we share the conviction of Souvik Mukherjee and Emil Hammar (2018) who state that the discipline urgently needs to "reflect on and question the ways that games are embedded in the (historical) global power structure" (p. 10). Games are an integral component of the world. They both reflect and reproduce. Therefore, they can incite both collective action and self-consuming egotism. They are inherently political.

This issue of *Eludamos* is inspired by among others Ruth Levitas (2013) who conceptualizes utopia as a critical method aimed at reflecting upon the given and at actively

shaping better worlds. The papers collected here contribute to Critical Future Studies' "programme of engaged and open-ended social critique" (Goode & Godhe, 2017, p. 109), not only trying to achieve improved understanding (negative critical mode) but also attempting to actively engage with and change the real world for the better (positive reconstructive mode) (Goode & Godhe, p. 125). For this purpose, we have gathered seven scholarly articles, one book review, and one commentary that all address potential futures of games, play, game development, and game studies from critical and (re)constructive vantage points.

Nick Taylor's article 'Reimagining a Future for Game Studies, From the Ground Up' challenges the discipline to ground itself—both metaphorically and literally—if it is to remain relevant given the severe challenges our social, political, and natural systems currently are confronted with. Drawing upon critical and materialist media studies as well as post- and anti-colonial scholarship, the author employs the example of the mobile game *Temple Run* and its contexts of production and play to trace the multiple ways through which games and their players are imbricated in material surroundings. In doing so, he conducts an exemplary study of how a critical and reflective games scholarship that takes its grounds seriously can proceed.

In their contribution 'Time to Stop Playing: No Game Studies on a Dead Planet', Emil Hammar, Carolyn Jong, and Joachim Despland-Lichtert offer a sweeping critique of how games, the games industry, players, and game scholars are intertwined with the various crises currently riddling both planetary ecosystems and populations, and argue that game scholars need to take these developments seriously. Seeing games and game studies through five distinct thematic areas, they offer a heuristic ordering of the field and its relation to contemporary systems of oppression, exploitation, and destruction that future game studies need to address. Moving from the imperialist structure of the games industry, via white supremacy, militarism, and media manipulation to fascism, patriarchy, and repression, and ending with the imminent climate catastrophe, the authors invite us to a veritable whirlwind tour through the dark underbelly of a global capitalist system hurtling us towards fascism and climate apocalypse. They show that both the games industry and game studies are deeply ingrained in, and reproduce, these dangerous and deadly undercurrents and urgently need to reflect on their role, and then act accordingly. Ending on a constructive note, the authors argue for the necessity to organize and mobilize for change both in the fields of game studies and development as well as beyond.

The following two articles, Alesha Serada's 'Fancies Explained: Converting Symbolic Capital into NFTs' and Hans-Joachim Backe's 'A Future Already Past? The Promises and Pitfalls of Cryptogames, Blockchain, and Speculative Play' take a look at recent technologically afforded trends in game play and development—blockchain and cryptogames. Serada employs Pierre Bourdieu's concept of symbolic capital to explain value circulations between player communities and the industry. Based on an analysis of the blockchain-based game *CryptoKitties*, the article points to tensions

between top-down financial and bottom-up symbolic forms of capital and warns against tendencies towards exploitation of the creative labor of players. Backe's contribution takes recourse to the theories of Johan Huizinga and Roger Caillois to offer new theoretical perspectives on the phenomenon of cryptogames. He shows that the technologies open for a commodified form of play and playful (re)creation and draws upon concepts such as gamification, playbor, gamblification, and speculative play to cast a critical light on practices of exploitation and monetization associated with blockchain- and cryptogaming. Backe concludes that cryptogames can be seen as "nested activities that can be approached as play, gambling, or financial speculation, with the latter approach being significantly privileged in existing games".

Agata Waszkiewicz's article 'Narrative Selfies and Player–Character Intimacy in Interface Games' looks at a particular type of games with potential for future game-based storytelling. In their contribution, Waszkiewicz interrogates the role of selfies in narrative driven interface games, i.e., games that allow players to witness and intervene in conversations between characters carried out via fictionalized smart phones or computers. The article argues that the use of fictional selfies allows for a negotiation of intimacy and emotional engagement between players and characters. At the same time, this form of engagement can veer towards voyeurism, something that can be problematic since these games often circle around the lives and experiences of marginalized identities. The article analyzes three games to identify three different functions of selfies in game play: dramaturgic, sociosemiotic, and dialectical.

In their article 'Playing on Life's Terms: Behavioral Strategies to Changing Situations', Elisa Wiik and Kati Alha investigate a niche area of game studies—former hardcore players forced to change their play practices due to families and other commitments. As digital games 'grow up' as a medium, so too do their players. Considering the futures of games and game studies means also considering how people change in how they relate to games over time. The contribution analyzes interview data to shed light on possible futures of play for many dedicated game enthusiasts adapting to 'life's terms'. The authors conclude that an often-assumed dichotomy between hardcore and leisure players appears exaggerated and should rather be conceived of as a dynamic scale open for constant change and adaptation.

Lastly, Maria Ruotsalainen's and Mikko Meriläinen's contribution 'Young Video Game Players' Self-Identified Toxic Gaming Behavior: An Interview Study' takes up an issue with significance for possible futures of play and game cultures – toxicity. The authors present a study based on interviews with young adult players who self-reported having exhibited what they see as toxic behavior in game play. After a review over the current state of research, the authors outline how their interview partners reflected upon their own negative behaviors and order the results into three thematic areas: (1) games as affective spaces and encounters, (2) game affordances and norm systems of game cultures, and (3) player agencies. Rather than merely offering a new model, the authors show the complexity of the phenomenon and the contingency of the observed patterns. The article ends with a future-bound perspective on

possible ways of addressing the issues of toxicity and negative behavior in game play and game cultures.

Finally, in our non-peer-reviewed section Rob Gallagher reviews Andrew Burn's monograph *Literature, Videogames, and Learning* (Routledge, 2022) showing how it addresses potentials and pitfalls of games for future education, before Austin Kelmore and Jamie Woodcock in their commentary use the example of the Game Worker Solidarity (GWS) project to discuss the importance of unions and worker mobilization for just, inclusive, and progressive futures of the games industry and beyond. Together, the contributions gathered in this issue offer a variation of critical approaches addressing potential future developments in the multiple relations between games and play, politics, society, the economy, culture, and the planetary ecosphere.

Before closing this editorial, we want to address a few internal issues at *Eludamos*. From 1 January 2024, two new members join our editorial board, and we wish to warmly welcome Agata Waszkiewicz from the John Paul II Catholic University of Lublin and Zoheb Mashiur from UiT The Arctic University of Norway to our team. We would also like to thank Aurora Eide for her help with formatting and copy-editing. Finally, it is worth mentioning that we have set up an advisory board to provide institutionalized frames for regular scholarly feedback on the development of the journal.

We end, once again, with a well-deserved thank you to all the authors for their fine contributions and to all the reviewers for assessing and improving many of the articles brought together here. Without your continuous engagement and support, the future of this journal would look bleak, indeed. Thank you all!

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eludamos
Journal for Computer Game Culture
Vol. 14, No. 1 (2023)

https://www.eludamos.org

Reimagining a Future for Game Studies, From the Ground Up

Nicholas T. Taylor

Eludamos: Journal for Computer Game Culture
Volume 14, issue 1, pp. 9–29

Reimagining a Future for Game Studies, From the Ground Up

NICHOLAS T. TAYLOR

Abstract

This article posits a future for game studies based on considering the ground—metaphorically and quite literally—upon which we play, produce, distribute, and work with games. Offering a critical consideration of the mobile game *Temple Run* inspired by both postcolonial and anticolonial scholarship, I explore some of the ways in which games transform our relations to land. This offers a multiscalar understanding of games and (in) place. From this perspective it becomes possible to understand how games are materially imbricated in some of our most urgent challenges—a central task for game studies, both present and future.

Keywords

Anticolonialism; postcolonialism; postdisciplinarity; games industry, media studies

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Did you think that your feet had been bound
By what gravity brings to the ground?
Did you feel you were tricked
By the future you picked?
Well, come on down

Peter Gabriel, 'Down to Earth', 2008

My most memorable interaction concerning the future of games came courtesy of Warren Robinett, who was one of the first game designers for Atari in the late 1970s and is credited with introducing the first video game Easter egg (Consalvo, 2023). During the question-and-answer portion of his keynote at the 2019 East Coast Games Conference in Raleigh, North Carolina, Robinett answered an earnest question about the future of game design put to him by a young game industry worker. He responded to the effect of, "future of games?! Environmental collapse is going to wipe us out!" (Robinett, as cited in N. T. Taylor, 2019). As I recall, this blunt answer was met with a smattering of nervous laughter. He then followed up with a more

Eludamos Vol. 14, No. 1 (2023), pp. 9–29
https://doi.org/10.7557/23.7102

mollifying and audience-appropriate reflection on VR and pervasive games. Amid the corporate hype masquerading as sage insight that typically passes for claims about the future of games, Robinett's response felt unguarded; perhaps even authentic. It didn't have the same rhetorical weight of, say, Greta Thunberg denouncing an entire neoliberal world order at the United Nations (Keller, 2021), but it certainly did serve as a stark reminder about whether and how present conditions permit us to think of a future in which games continue to matter.

While I am sympathetic to this kind of response, and its urgency and earnestness certainly resonate, I want to challenge Robinett's proclamation. His assertion is that games—and by extension, pursuing an education in game design and game studies—are rendered frivolous, if not meaningless, when placed beside an existential threat like climate change, *as if there's no meaningful connection between the two*. For Robinett, 'how can games matter in the face of existential crises?' is a rhetorical question meant to undermine the self-importance of the games industry; but what if we treated it instead as a provocation for how we consider, and make, a future for game studies?

This particular essay is not about games and climate change, at least not directly; rather it is about how we might 'do' game studies in a way that deeply respects the sincerity of unguarded reminders regarding the multiple, interlocking crises we face, while also rejecting the underlying notion that these crises render meaningless the projects of making and/or studying games. Here, I follow the lead of numerous scholars who see games not only as texts that *reflect* and *represent* contemporary social, technological, economic, and ecological orders, but as technical and cultural systems that help usher in new ones. This literature is as broad and varied as the field of game studies itself, but invites us to look at how games are imbricated in the operations of the military-industrial complex (Crogan, 2011; Elam, 2018); emergent forms of surveillance (Partin, 2020; Whitson, 2013); the resurgence of ethno-nationalism and white supremacy (Richard & Gray, 2018; Trammell, 2023); the spread of exploitative and precarious work conditions under postindustrial capitalism (Bulut, 2020); and the degradation of our environment, given the ecological (not to mention humanitarian) tolls of streaming, networked gaming, and the construction and disposal of gaming hardware (Dyer-Witheford & Peuter, 2009; Monserrate, 2022). It is in the presence of this crucial scholarly work that I hope to posit one future for game studies: one that lies in our commitment and capacity to make sense of the innumerable connections, both historical and contemporary, between games and those seemingly immense transformations which seem to exist in *larger* scales of spatiality and temporality. These include the intertwined legacies of colonialism, capitalism, and climate change; these are all inescapably about locality and place, and the violences reaped upon land and its people, in the service of resource extraction (Liboiron, 2021).

This future for game studies—and it is certainly one among many—is modest in its aims, but it assumes a different epistemological perspective than conventional futurism, with its techno-determinist gaze resolutely ahead (Halley & Vatter, 1978; Keen, 2022; Taleb, 2012).[1] If games scholarship were to adopt this TED-talk-futurism and its forward-looking gaze, it would inevitably fall into step behind the games industry, ensuring that the future of game studies lies in making sense of whatever shiny objects the industry might be toying with now (VR, or AI, or blockchain, or crypto). Instead, the stance I offer here requires a look *down*: to consider the ground on which we stand, study, and play. In doing so, I hope to offer a generative way of addressing the prompt offered by this journal's editors, which is to "investigate how games and play both shape and are shaped by the world" (Pötzsch & Jørgensen, 2022, p. 1).

Looking down also ensures that I remain grounded: that I begin from an attention to my own social location as someone embodying the intersections of most forms of privilege (cis-hetero, middle class, settler, white, English-speaking, and currently able-bodied), and to the networks of relations that have enabled me to research, write, and teach in relative comfort and stability. In the interest of further transparency, I should note that this discussion covers an example, and some of the same themes, I draw from in a forthcoming book that I have called *The Grounds of Gaming* (N. T. Taylor, 2024). Specifically, it borrows upon and expands themes explored in the book's first chapter on games, games research, and colonial logics of extraction.

Exploring new ground

'Ground' and associated terms provide a rich set of metaphors for conceptualizing the present and future of game studies. Ours is an interdisciplinary field, after all, in which our particular disciplinary and institutional terrains condition how we approach games. But it also stirs up the figure/ground motif of gestalt psychology, appropriated by media theorist Marshall McLuhan as a means of challenging conventional approaches to understanding media. Invoking McLuhan in an article concerned with futurity is not without baggage—he is, after all, repeatedly referred to as "the prophet of the information age" (see for example, Stephens, 2018, p. 1). But as other media scholars working with feminist and anti-racist aims have argued, McLuhan's work remains useful quite apart from (and in spite of) his cryptic proclamations regarding the wired world, mired as those are in misogyny and Eurocentrism (Sharma, 2022). McLuhan offered an understanding of media that was less

[1] To be clear, I am eschewing a particular form of futurism here: one which, to paraphrase Ursula K. Le Guin, imagines the end of the world more readily than it imagines the end of capitalism (Le Guin, as cited in Arons, 2014). I acknowledge that there are other futurisms, rooted in embodied experiences of oppression, which have more to say about the future—of game studies, or otherwise—than I do (see, for example, Capers, 2019; Muñoz, 2009).

concerned with the *content* of any given medium than with the ways media alter the pace and scale of our relations to each other and to the worlds we inhabit. He described this epistemic inversion—from analyzing the representational content of any particular media production, to considering the ways media transform how we relate to, move through, and make sense of the world—as a matter of perceiving and attending to the *ground*, the backdrop against which the figure comes into relief. This holds out a productive lesson for game studies, as it has for media studies more generally (Maxwell & Miller, 2012), particularly (though certainly not limited to) scholarship concerned with addressing systems of exploitation and oppression rooted in racial and gender hierarchies (Sharma, 2008; Singh, 2020; Towns, 2022).

Ground can also, of course, refer to land: to the foundational and inescapable reliance we have on soil (and water, and air). Media studies has begun paying attention to land in important ways, such as in theories of "elemental" media (Peters, 2015; Starosielski, 2019) and in the attention to matters of infrastructure and environment (Grandinetti & Ingraham, 2022; Hogan, 2018; Mattern, 2015; Starosielski, 2015). And yet, this is a set of concerns that game studies, as an adjacent and overlapping field, is not as accustomed to dealing with; outside, that is, of its more prevalent, figurative epistemology (as in, questioning how land is constructed and represented *in* games).

Over the rest of this article, I want to blend together these multiple senses of ground—metaphorical and disciplinary, epistemological, and resolutely material—to offer an example of a future of game studies that is made possible by looking down, not forward. I offer a critical consideration of *Temple Run* (Imangi Studios, 2011), a mobile game made in Raleigh, North Carolina, where I lived from 2012 to 2022. For reasons that become more apparent below, I focus on *Temple Run* not only because it is a highly popular if understudied franchise that helped launch a ubiquitous mobile gaming genre (the 'endless runner'), but because the game had a hand in transforming the built environment of a place I called home for several years. The analysis proceeds in two parts: the first adopts a postcolonial approach, a critical reading of the game as a text that highlights how its imagery, narrative, and mechanics—the 'figures' animating the gameworld—traffic in ideologies that frame Indigenous cultures and lands as both savage and as endlessly available for extraction. The second is inspired by fields with which game studies has not yet had many encounters: anticolonial scholarship, and critical media studies influenced by the "infrastructural turn" (Parks, as cited in 2020). These perspectives help make sense of a different, more material way in which *Temple Run* reproduces relations to land rooted in the conjoined projects of colonialism and capitalism. I will show how *Temple Run* has been agential to the gentrification of my former neighborhood in Raleigh, North Carolina, made possible by and building upon a much longer process of racialized economic and political disparities that have their roots in Indigenous dispossession and Black slavery.

Postdisciplinarity in play

In carrying out this analysis, I rely upon an orientation to games and game studies that might best be called 'critical postdisciplinarity.' At first glance, postdisciplinarity seems to be at least terminologically well-suited for the future, given its prefix. But as with postcolonialism, the prefix is not meant to indicate a chronological relationship, as if we are 'past' either disciplinarity or coloniality. We won't go far into the future if we presume such a naïve stance towards our intellectual and political present. Nor does postdisciplinarity assume resistance to the disciplines. Rather, according to tourism scholar Frédéric Darbellay, it is a mode of inquiry "that can both capitalize on the contributions of disciplines while transforming them into new theoretical, methodological, and practical frameworks" (2016, p. 370). As I understand and practice it here, *critical* postdisciplinarity involves finding connections between quotidian moments of game play (and its attendant practices, including research and design) and the broader relations of power that make these practices possible and which they help reproduce. This stance compels us to read broadly, even promiscuously, and to engage intellectual traditions outside of normative approaches in game studies, even (and perhaps especially) when that means decentering games themselves (Harvey, 2015; T. L. Taylor & Witkowski, 2010; Tobin, 2015; Tran, 2022). For me, this entails enriching the conceptual soil of game studies through theories of anticolonialism, critical accounts of infrastructure, cultural geography, and the colonial histories of the lands on which I live, work, and play as a settler scholar. It is an orientation to knowledge production that is indebted equally to anecdote and abstraction; that understands narrative as a wellspring of insight, learned from ethnography and Indigenous knowledge production, among other knowledge traditions (Collins, 1989; D. E. Smith, 2005; P. L. T. Smith, 2021); and that privileges eclecticism over methodological formalism. Note that in outlining critical postdisciplinarity and demonstrating it in what follows, I am certainly not offering it as a prescription—as 'the' approach for the future of game studies. Rather, I espouse it here because it is well-suited to the project I set out in this essay, and more fully in *The Grounds of Gaming*: that of locating and articulating connections between video games and place.

Decolonialism, postcolonialism, and anticolonialism

It should be noted that my understanding of colonialism and the modes of resistance to it are, themselves, grounded in place: in the contexts of lands that are now called Canada and the United States, in which I have lived as a settler (though during my decade in the US, I was also an immigrant). These are lands in which it is difficult, if not impossible, to refer to colonialism as a historical epoch that is now behind us. For the white, wealthy elite of these countries, Indigenous dispossession is an integral process in the ongoing and contemporary project of *settler capitalism* in which Indigenous lands are given over as resources for the accumulation of

wealth, which is then distributed according to intersecting hierarchies of race, class, gender, and geography (Denoon, 1983; Paulson & Tomiak, 2022; Shipley, 2020).

Set in this context, I do not feel it appropriate to describe the work I sketch out here as "decolonizing", in which practitioners "interrogate how knowledge is produced; denaturalising and critiquing Western knowledge as neither superior nor universal" (Hiraide, 2021). As one example, academics and instructors are encouraged to decolonize our syllabi by centering Black, Indigenous, and other people of color (BIPOC) voices and perspectives. These are no doubt worthy pursuits. Nonetheless, Eve Tuck and Kenneth Yang powerfully assert that for places where Indigenous dispossession is still at work, including those places in Canada and the US I have called home, "decolonization" is far more than a textual or discursive strategy. It is a political and economic goal that only becomes fully possible through Indigenous sovereignty and repatriation of lands (Tuck & Yang, 2012).

Likewise, it is not entirely accurate to describe the work I undertake here as postcolonial. Following the historical account outlined by Anil Loomba (1998), I understand postcolonialism to be an intellectual movement emerging out of and in response to nationalist movements in the mid-twentieth century, as formerly colonized territories in South America, Africa, and Asia gained at least nominal independence as sovereign states. Strongly associated with poststructural philosophy coming out of language and literature departments in the 1960s to 1980s, early proponents of postcolonialism adapted Marxist historical materialism and Foucauldian understandings of discourse to the purpose of understanding how relations of subjugation and oppression between European imperial powers and the 'others' of the world are portrayed, reworked, and reinforced through texts. Postcolonial critiques of gaming have proven generative, with scholars applying the tools of textual analysis to analyze how games' representational and interactional meanings traffic in colonialist discourses, while also moving beyond games themselves to consider (among other things) video gaming paratexts and technologies, and the relations of power characterizing game studies as a field (Apperley, 2018; de Wildt et al., 2020; Mukherjee, 2017; Murray, 2018b; Trammell, 2022). That said, as the special issue on 'Postcolonial Perspectives in Game Studies' edited by Souvik Mukherjee and Emil Hammar for the *Open Library of Humanities Journal* makes clear, textual analysis of games remains a, if not the, central focus of postcolonial critique in game studies. The first analysis of *Temple Run* that I provide below operates within this important subset of games research, attending to the hyperkinetic and endlessly problematic 'figures' of and in games.

The second analysis of *Temple Run* that I provide owes more to theorizations of anticolonialism, as offered by Indigenous and Métis scholars in Canada and the US. Anticolonialism looks very different for those of us living in these parts of the world than it does for scholars and activists in other colonial contexts where land and sovereignty have been ceded back to native populations—even as new forms of colonialism and imperialism continue to shape their lives. But regardless of the conditions

under which they operate, Métis scientist Max Libioron (2021, p. 10) asserts that all anticolonial projects center land and relations to land. Applied to critical considerations of gaming, working with anticolonialism entails a shift from asking how colonial relations are enacted and/or challenged in games and related texts (a key question for postcolonial critique) towards considering how digital games transform relations to land—bringing ground to the fore, in a very direct sense. As I explore below, such an approach considers how the systems for producing, distributing, operating, and disposing of games transform our environments, often in ways that extend and reproduce colonial patterns of extraction and dispossession, also at a material level.

These definitional distinctions matter, but again, these terms ought to resonate differently depending on where we are—geographically, socially, physically—as authors and readers. I consider my work here more aligned to theorizations of anticolonialism, because that's how the scholars and activists whose lands I am on, and who are at the forefront of resisting the ongoing legacies of colonialism and capitalism, describe their work. Just as place matters to how we play, so it matters to how we make sense of our world. As both Indigenous and feminist scholars insist, locating ourselves is a crucial step towards ensuring we are accountable for what we know and say (Haraway, 1988; TallBear, 2014). This is part of what it means to *ground* game studies: to make clear where we stand—as scholars, players, designers, and (in many instances) settlers.

Figuring out *Temple Run*

The relationship to land highlighted by the following postcolonial critique of *Temple Run* borrows from the work of scholars much more adept at this kind of analysis. I am particularly grateful to Souvik Mukherjee in his emphasis on "cartographic" (2018, p. 509) analyses of games and their fundamentally imperialist orientations to virtual space, and to Soraya Murray, in her look at how video game landscapes "model systems of engagement that betray values, priorities, ethical positions, and biases" (2018a, p. 174).

Temple Run was first published in 2011 by Imangi Studios, an outfit founded by the husband-and-wife team of Natalia Luckyanova and Keith Shepherd. Originally available for a low price on the Apple Store, the game moved to a free-to-play model offering in-app purchases for upgrades, which are also available through earning coins in-game (Chen, 2012). A pioneer in the 'endless runner' genre, the game presents players with a third-person view of their character, who runs very quickly down a single narrow corridor (endlessly, meaning without input from the player) until they fall, stumble, or are caught by pursuing enemies. Despite the genre's name and the game's title, the character does not really move, but rather runs in place while the procedurally generated corridor scrolls underneath them. Players swipe left or right to follow the corridor's ninety-degree turns, swipe up or down to jump over or slide under obstacles, and tilt their smartphone to position the character laterally in

order to pick up coins. Luckyanova describes how their development team—initially herself, her husband, and artist Kiril Tchangov—came up with the mechanics first before settling on a theme and artistic direction (Lefebvre, 2012).

The game's premise provides a rationale (albeit flimsy) for these mechanics. The playable character has just pillaged treasure from an Aztec temple and, borrowing heavily from the famous boulder scene in *Raiders of the Lost Ark* (Spielberg, 1981), must run for their life to escape with it. As in the film and so many other narratives (including games) set in the ruins of pre-Columbian Meso-American civilizations, such as *Shadow of the Tomb Raider* (Eidos-Montréal, 2018) and *Uncharted: Drake's Fortune* (Naughty Dog, 2007), the act of seizing treasure triggers swift and lethal reaction set by the temple's clever but long-dead builders. These include various traps in the case of *Shadow of the Tomb Raider*, mutated Nazis in *Uncharted*, and supernatural "demon monkeys" (Lefebvre, 2012) in the case of *Temple Run*. But unlike these other portrayals of temple- and tomb-raiding, the central act of plundering the treasure is never shown in *Temple Run*, nor is any motive established, as there is in other games and movies, in which the white, pure-hearted protagonists *must* disturb long-dormant ruins of Meso-America and seize their devastatingly powerful mystical instruments, lest evil-doers get there first.

Perhaps given the lack of a more involved narrative and its status as a casual mobile game, *Temple Run* has not been considered by academics; mobile games typically draw attention from critical theorists for their mechanics, gendered and racialized politics of access, and monetization strategies rather than their representational content (Akil, 2016; Anable, 2018; Chess & Paul, 2019). Similarly, while it has received substantial press from both game journalists and tech journalists, its setting and premise are usually only mentioned in passing. Nevertheless, its reliance on hyper-colonialist renderings of pre-Columbian civilizations is hard to miss. The initial playable character is a white 'jungle explorer' in dungarees and collared shirt, reminiscent of Nathan Drake's or Indiana Jones' attire. Among other unlockable characters is an actual Spanish conquistador. Notably, the game does not portray any Indigenous characters. The only agency remaining to those who constructed the temple is to engineer savage retribution upon trespassers: the demon monkeys, which become a kind of stand-in for murderous natives. Gold, in the form of endlessly collectible coins and the squat imp-like statue figuring prominently in the interface and loading screens, is the game's primary treasure, simultaneously invoking and sanitizing the brutal, centuries-long regimes of plunder, conquest, and subjugation through which hundreds of tons of gold were extracted by European imperial powers (most notably the Spanish) from the lands and populations of the 'New World' (Bryant, 2014). We can see in the games' relatively bloodless and benign portrayal of European imperialism echoes of *El Requiremiento*: the white, western European framing of Indigenous lands and peoples as savage, inhospitable, yet endlessly open to plunder (Couldry & Mejias, 2019, p. 340). As an endless runner, the character can never escape the temple; yet at the same time, this guarantees that the plunder never ends.

The house on the hill

Turning from a consideration of how *Temple Run* portrays land to a mode of analysis more indebted to anticolonialism, I now consider how we might make sense of *Temple Run* if we started from the ground up—meaning physical, rather than virtual land. This is done by examining how the game's developers have leveraged its success to exert influence over the built environment, in a place I called home for several years—a place in which histories of colonialism and racial segregation remain very much in play.

The neighborhood I lived in for the majority of my time in Raleigh is called Boylan Heights. Like so many other facets of urban planning carried out in the United States (and particularly the south) in the decades following the Civil War and the abolition of slavery, Boylan Heights was constructed as a white enclave, on land formerly owned by slave owners, and named after slave owners and/or heroes of the Confederacy. In this case, Boylan Heights was established in the early 1900s through land sold to the city of Raleigh by the descendants of William Montfort Boylan Sr., a prominent plantation owner credited with introducing cotton to North Carolina and "embracing slave ownership" to support this cash crop (Infanzon, 2022; *William Montfort Boylan Sr. (1777-1861)*, 2008). Boylan Heights and other Raleigh neighborhoods characterized by single-family homes on relatively spacious lots were governed by "explicit deed covenants" that forbade the sale of land to African American citizens (Mattson, 1988). While Jim Crow-era practices like racialized deed covenants and redlining no longer exist, the demographics of Boylan Heights reflect their accrued legacies, as it is primarily affluent white families that continue to occupy the charming, colourful one- and two-story family homes, with their wrap-around porches and deep front lawns. In the decade we lived there, white wealth continued to push into the south-east pockets of the city, historically occupied by African American families, and new single-family housing developments continued to force lower-income, rental-based residents away from the city's center. This enabled my partner and I (like many other relatively well-off, majority white families) to buy into Boylan Heights and build a small but elegant single-family home at the lower outskirts of the neighborhood. At both the local and national levels, this recent gentrification builds on and intensifies patterns of racial wealth distribution. The accrued legacies of Jim Crow-era racist economic policies have been exacerbated, on the one hand, by efforts to revitalize' American downtowns through attracting white professionals to economically fallow areas, and on the other, by the Great Recession of the late 2000s, in which the sudden evisceration of real estate-based equity was felt disproportionately by Black and Hispanic homeowners (Kochhar, 2011).

Of course, the white wealth of Boylan Heights stretches back much further. Its grounds were laid by the violent dispossession of the Tuscarora and Siouan tribes, and by the brutal extraction of West Africans from their lands to serve as slaves in the colonized American South, their labor providing the foundation on which American wealth and American empire were built (Dial, 2022; Towns, 2018). My morning

commute in Raleigh, from our home to my office at NC State University where I would write and teach about games, encapsulated this history and so much of its contemporary legacies. Leaving the white enclave of Boylan Heights, I passed both the Raleigh Central Prison, a large maximum-security facility in which disproportionate numbers of Black men are put to work as cheap labor (Nellis, 2021), and Pullen Park, established as a playground for the predominantly white families of Boylan Heights and Cameron Park. I then arrived at NC State, established in the 1880s in part through the federal government's 'gifting' of lands violently expunged of Indigenous populations (Lee & Ahtone, 2020).

Sitting atop Boylan Heights, a stone's throw from the prison, is the building formerly known as Montfort Hall. Completed in 1858 by William Boylan Jr. on the plantation bought by his father, the Italianate mansion is a registered historic landmark, and boasted several architectural firsts for its time—including the first indoor gaslighting in North Carolina (Heights House | History, n.d.). When we moved to the neighborhood in 2014, Montfort Hall lay dormant, shuttered and shrouded in vines. After an extensive and very well-publicized three-year renovation, the site was reopened in 2021 as Heights House, a boutique 10-room bed and breakfast. The site's new owners, another husband-and-wife team, are well-attuned to the colourblind liberalism of their neighbors and their clientele of affluent "staycationers" (Sharma, 2009); the Heights House website lists "inclusivity" as one of the owners' core values, explaining that the name change is their attempt to reconcile with the building's historical roots (Heights House | Our Story, n.d.). Nowhere on the "history" page of the website is any mention made of slavery. Ignoring the past is, of course, one of the preferred modes in the US of "reconciling" with it (Alexander, 2020), and here—as well as touting inclusivity while charging $400 USD a night—we can see how the mansion's legacies of gaslighting live on.

This, then, is a snapshot of colonialism's legacies in and on the built environment I called home for those years: for about one fifth of the amount of average monthly rent in Raleigh (Parker, 2023), you can spend a night in an 'inclusive' bed and breakfast in a former plantation mansion, at the top of a hill named after the slave-owning plantation owner, in a neighborhood originally set up to keep Black people out, steps away from one of the sites of modern day racialized indentured labour.

We can now reintroduce *Temple Run* and ask what connection the game might possibly have to this boutique bed and breakfast. The restoration of Montfort Hall and its rebranding as Heights House was funded by Imangi Studios, with profits generated primarily by the *Temple Run* franchise. Keith Shepherd's brother, Jeff, works at Imangi and makes up the husband-and-wife team behind the boutique inn, and money for the renovation was funneled from Imangi through a limited liability company formed by the Shepherds (Eanes, 2018). Despite attempts by Heights House's new owners to ignore the mansion's (and neighborhood's) roots in the slave-based economy of the pre-Civil War American South, it is clear that in both instances, the white, wealthy elite of the time have claimed this house on a hill as a symbol of their

mastery over their respective economic systems. Acknowledging this fact, without lapsing into naïve and misguided comparisons between plantation slavery (and the genocide of Indigenous societies which preceded it) and the contemporary operations of the media and technology industries, requires an attention to at least some of the systems and practices through which gaming transforms our relations to land.

Games and the built environment

I am indebted to the work of other games scholars who document the effects of the game industry's operations on our environments. These range from quirky, as with searching for buried copies of the failed *E.T.* Atari (1982) game in the New Mexican desert, to grim—including mining for coltan and other conflict minerals in Africa (Dyer-Witheford & Peuter, 2009; Ruggill et al., 2016). The account I find most helpful for understanding how games transform relations to land in the urbanized centers of game production, however, comes via Ergin Bulut in *A Precarious Game* (2020). His ethnographic study follows a game studio in the Midwest United States as it gets purchased by a AAA publisher and, via an influx of people, capital, and corporate management, shifts from an indie outfit to the publisher's flagship games developer. One of Bulut's key contributions is to show how this transformation alters the urban landscape of "Game City", the name he gives the small Midwest town. Attracted by the lure of a short commute and cheap housing not found in major nodes of game production (cities such as Montréal, San Francisco, Dallas, and Toronto, which receive the lion's share of scholarly attention) the studio's workers nonetheless crave bars, breweries, "artisanal coffee shops", hip restaurants, and other hallmarks of affluent urban life (Bulut, 2020, p. 76). The desires of the studio's employees, city planners, and real estate developers aligned to drive the 'revitalization' of the formerly abandoned downtown. In this way, the game studio became both impetus for the city's "micro-urban" redevelopment, and a template for the city's reliance on "public-private partnerships" (Bulut, 2020, p. 85): a thoroughly neoliberal configuration in which public resources and infrastructures are expressly calibrated to the needs of private companies. My partner and I encountered a similar transformation upon moving to downtown Raleigh in 2014, at the same time as many technology businesses (including Red Hat and Pendo) were doing the same. In both mid-sized cities, "Game City" and Raleigh, key actors in the new media industries formed the motive core of a "constellation of material developments, practices, and discursive forces" that shaped "the emerging micro-urban scene" (Bulut, 2020, p. 85).

In recounting an interview with one of the game studio's HR personnel, Bulut (2020, p. 84) notes how a book by Richard Florida sat in their office, and learns that it was given to them by the real estate company that built their new headquarters in downtown Game City. This small detail is indicative of how Bulut understands the material circuits in which ideas and ideologies travel, and the effects that such ideas can end up having over transformations in our physical world—in this case, 'how to revitalize an urban environment by attracting the creative class'. Of course, Richard Florida's

heavily trafficked and highly influential ideas have been increasingly associated with the erosion of the very conditions that made downtown living so compelling for a mobile, white, upper middle class (at least, before the Covid pandemic): a thriving arts scene, independently owned shops and restaurants, inexpensive housing. As one pundit explains, Florida's blueprint for revitalizing cities "has proven to benefit the already rich, mostly white middle class; fuel rampant property speculation; displace the bohemians he so fetishised; and see the problems that once plagued the inner cities simply move out to the suburbs" (Wainwright, 2017). Such is the legacy of this particular vision of urban renewal in cities across North America, myopically fixated on the desires and needs of a mobile, mostly white creative class.

Heights House, with its $400 USD per night rooms chock-full of products and design flourishes created by North Carolina artists and craftspeople, and its lip service to inclusivity, embodies the contradictions of Floridian urbanism. It sits at a different stage in the 'production pipeline' of urban space that Bulut describes with respect to the game studio in Game City. It is not itself a site of games industry production, but rather a site that the games industry has produced: a symbol of the games industry's success in this region. No longer just partnering with city planners in a drive to establish the amenities that retain creative industry talent, the games industry is directly bankrolling the "aestheticization of urban experience and commodification of art", in the form of this boutique bed and breakfast (Bulut, 2020, p. 85). Heights House announces that the games industry in the Raleigh region is, in its own right, a major player in the real estate market.[2] For the established and mature games industry in Raleigh, home to Imangi Studios but also to Epic, Insomnia, Red Storm, and others, the boutique hotel serves as an embodiment of the industry's tentacular reach over and through the built environment, and its vaunted position in the platform economy.

What makes *Temple Run* run?

The platform economy runs on extraction, albeit in more voluntary and technically complex forms than the brutal regimes that initially built Montfort Hall. Like so many other free-to-play digital games, *Temple Run*'s most obvious source of income is the sale of cosmetic and gameplay upgrades via microtransactions. But in 2013, Imangi partnered with NativeX (known at the time as W3i), a monetization platform that connects Imangi with advertisers. Every time a user clicks through an ad shown on *Temple Run*, Imangi gets a minute drop of income (Williams, 2012). NativeX is one small part of the vast surveillant apparatus that gathers, stores, processes, and circulates data gathered from our interactions with networked technologies. The cen-

[2] More extensive transformations are visible in other, more intensified centers of game production, such as Montréal (S. Smith, 2017).

tral logic by which NativeX and other monetization services operate was first outlined by Marxist communication scholar Dallas Smythe, studying the relationship between advertisers, television viewers, and television producers. In Smythe's (1977) model, television studios create products targeted at certain audiences (striated by age, gender, region, and so on), who are then delivered to advertisers. The central commodities exchanged in this relationship are not the advertised products, but audiences themselves, whose attention is first secured by cultural producers, aggregated by demographics and preferences, and then sold to advertisers (Smythe, 1977). At the time of Smythe's (1977, p. 5) writing, the "audience commodity" was an imperfect construct, a set of probabilities cobbled through imprecise instruments like Nielsen boxes and focus groups (p. 5). But under contemporary technological conditions, in which smartphones and other connected devices are able to gather data on our location, identity markers, second-to-second interactions with other users, biometrics, and so on, the audience commodity is a fine-grained composite of our individual actions, preferences, and tendencies assembled through thousands of points of data: the "dividual" of Deleuze's (1992, p. 5) control society.

There are certainly connections to be drawn between this relatively new mutation of capitalism—variously called *platform capitalism* or *surveillance capitalism*—and colonialism, with its histories of forceful dispossession (Srnicek, 2017; Zuboff, 2019). This is the central focus of Nick Couldry and Ulises Mejias' (2019) *The Costs of Connection: How Data Is Colonizing Human Life and Appropriating It for Capitalism*, and their notion of *data colonialism*. The authors regard contemporary techniques of datafication as refinements of the extractive regimes that converted Indigenous lands and peoples into raw resources, powering the spread of European imperialism and providing material wealth for the growth of capitalism. For Couldry and Meijas (2019, p. 85), these techniques have become largely immaterial; they write that "the colony" is no longer a "geographic location", but the virtual networks that connect us socially and economically (p. 85). In their words:

> The resources that are being colonized are the associations, norms, codes, knowledge, and meanings that help us maintain social connections, the human and material processes that constitute economic activity, and the space of the subject from which we face the social world. (Couldry & Mejias, 2019, p. 85)

From the perspective provided by Couldry and Mejias, the transformation from Montfort Hall to Heights House was made possible through Imangi's mastery of these new techniques of extraction, put to work in their endless runner. *Temple Run* is not merely colonial through its imagery, but through its developers' expert deployment of the extractive tools constituting the new regime of immaterial colonialism.

In the reckoning provided by Couldry and Meijas (2019, p. 45), "historical colonialism" ended with the nationalist movements of the mid-20th century. It provided for

the material infrastructures (in the form of "primitive accumulation"), legal and ideological frameworks, and global distribution of capital upon which this contemporary economic order is constructed. As trenchant as their critique is, though, it is difficult to reconcile their claim that its operations as largely immaterial, working primarily upon the "enhanced reality" (2019, p. 85) of digital data, with the inescapably material realities of colonialism as described by anticolonial and Indigenous scholars and activists living in what are now called Canada and the US. Hence, my insistence in this essay on the localization of theory. The hill upon which Heights House sits is part of the territory from which the Sioux and Tuscarora were violently expunged. It was then worked upon by West African slaves for the enrichment of the white settler–capital elite, whose control over the land continues through a shifting series of exclusionary legal, economic, and ideological apparatuses. Under these conditions, as Max Liboiron reminds us, colonialism is not at all behind us; rather, it forms the "active set of relations" (2021, p. 65) in which we live. What connects both *Temple Run* and Heights House as artifacts of this colonial present, therefore, is neither just their aesthetics nor the extractive techniques on which they run. It is the ways that both the game and the mansion came into existence through, and further the production of, active sets of relations in which land and labour are both instrumentalized as resources for extraction, to have their value determined by and funneled to a settler-capitalist elite.

Conclusion

As I mentioned in the introduction, the 'grounded' analysis I offer here may seem at odds with the aim of presenting a future for game studies. After all, I have not mentioned AI, or VR, or blockchain, or esports. Instead, the future for game studies that I encourage here is more concerned with looking down, at the ground, rather than ahead. I do not hold out much hope for the field of game studies if it is fixated, however critically, on whatever new objects the games industry decides are its future. Such a path would ensure game studies' productivity at the cost of its broader social and political significance. Tethering the future of this field to the interests of an industry which frequently touts itself as new and forward-looking ensures that game studies' relevance will only ever be measured by its capacity to keep up, to follow the hyperactive gaze of technocapital as it scans the horizon for new forms of game-based extraction. Souvik Mukherjee and Emil Lundedal Hammar frame this tension in similar terms, asking:

> Will game studies continue to be subsumed under the neoliberalisation of academia, in which the only telos is profit, and which churns out workers for the factory that is mainstream game development? Or will game studies reflect on and question the ways that games are embedded in the (historical) global power structure? (2018, p. 10)

Clearly, I believe that aligning game studies (and academia more generally) to projects and communities engaged in resistance to hegemonic power relations—to the struggle for a future in which we can truly be post-colonial, -capitalist, -racist, -gender, in a chronological sense—is well worth it. Looking down, rather than ahead, understanding where we stand in relation to games, and what relations to land the games industry relies upon and in turn reproduces, seems a good place to start. This stance invites us to broaden our understanding of what sorts of relations are in play when we push for justice and equity in digital gaming and, as a result, it increases the range of interventions, both theoretical and practical, at our disposal. Looking down opens up new opportunities for critique, but also possibly for postdisciplinary sense-making, activism, and visions for more just and sustainable futures: not just for games, but for people and planet.

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eludamos
Journal for Computer Game Culture
Vol. 14, No. 1 (2023)

https://www.eludamos.org

Time to Stop Playing

No Game Studies on a Dead Planet

Emil L. Hammar, Carolyn Jong and Joachim Despland-Lichtert

Eludamos: Journal for Computer Game Culture
Volume 14, issue 1, pp. 31–54

Time to Stop Playing
No Game Studies on a Dead Planet

EMIL L. HAMMAR, CAROLYN JONG AND JOACHIM DESPLAND-LICHTERT

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

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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

Eludamos Vol. 14, No. 1 (2023), pp. 31–54
https://doi.org/10.7557/23.7109

(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 undermentioned 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 anglophonic white heterosexual cismen 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 fearmongering 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-Witheford & 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 an 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 onlookers 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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eludamos
Journal for Computer Game Culture
Vol. 14, No. 1 (2023)

https://www.eludamos.org

Fancies Explained

Converting Symbolic Capital into NFTs

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Eludamos: Journal for Computer Game Culture
Volume 14, issue 1, pp. 55–79

Fancies Explained
Converting Symbolic Capital into NFTs

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Abstract

The concept of *symbolic capital*, introduced by Pierre Bourdieu (1986), has been applied to explain the circulation of value between game communities and the industry. The bottom-up approach can be found in the studies of so-called "gaming capital" accumulated by gamers (Consalvo, 2009), while the top-down approach focuses on the agents who hold the most power in the gaming industry (Nichols, 2013). These perspectives may require reconfiguration today: since the end of the 2010s, traditional power relations have been contested by 'decentralized' gaming that uses blockchain technologies and non-fungible tokens (NFTs). Their early adopters suggest that NFTs may disrupt traditional circulation of value to the benefit of players as opposed to major corporations. Many gamers, however, vehemently oppose NFTs in games. By combining these top-down and the bottom-up approaches, this article explains that the specific symbolic gaming capital remains systematically underappreciated in blockchain gaming, which operates along different vectors of power. To support my argument, I turn to the longest-running blockchain-based game *CryptoKitties* (Axiom Zen, 2017), and analyze the elements of the role-playing genre that appeared in the game during the collective process of continuous development. In the first case, these elements ('fancies') were added by the developers of the game, and in the second case, an RPG-like extension emerged as one of its fan spin-offs (*KotoWars*). I conclude that symbolic capital is community-specific in the case of blockchain gaming. It is only available to those who already possess considerable symbolic, and, much more importantly, financial capital within the crypto community.

Keywords

Blockchain; NFTs; artificial scarcity; gaming communities; storytelling; failed games

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In its most basic understanding, blockchain stands for a cryptographically protected, distributed ledger of all transactions in a software system. The most important feature of blockchain systems, in our case, is decentralization (see, e.g., Lapointe & Fishbane, 2019). There is no single controlling authority and nor is there a single point of failure, although social factors enable endless opportunities for

Eludamos Vol. 14, No. 1 (2023), pp. 55–79
https://doi.org/10.7557/23.6666

abusing security and trust in blockchain systems. Cryptocurrencies are the prime case to illustrate these tendencies. Their evolution has come a long way from the first cryptocurrency, Bitcoin, and Ethereum, the first major blockchain platform that runs on the second largest cryptocurrency, Ether, to multi-layered (over-)complicated platforms for decentralized finances, or DeFi. DeFi platforms can be used for high-risk investments and eventually for massive financial fraud, as the examples of Luna, Celsius (S. Lee, Lee, & Lee, 2022; Gechev, 2022; Tjahyana, 2022), and FTX have demonstrated recently. The topic of this article is 'decentralized' gaming realized on a blockchain in a rather similar way, although with much less detrimental consequences, safeguarded to some extent by their obvious playfulness.

According to da Silva and Omar, a *crypto game* is a "game that uses distributed ledgers to operate the game and a cryptocurrency for exchanging items or characters for money" (da Silva & Omar, 2021). I will further use the term *crypto games* to refer to the subfield of the video game industry that uses blockchain technologies and non-fungible tokens (NFTs) based on them. An NFT is a cryptographically secured, immutable token on a blockchain that includes a pointer to an external asset, e.g., a piece of digital art or a game asset. While the token is indeed immutable in most cases, the asset itself can be deleted or replaced, e.g., when a crypto game has discontinued partnership with a brand (Animoca Brands, 2022; Wilmoth, 2018). In a more positive scenario, the same token can be made interoperable across different games, where it points at different manifestations of the same asset, although actually realized examples have been rare so far (Dapper Labs, 2019).

Due to their decentralized management and potential interoperability, NFTs are often heralded as the future of gaming (Almohsen, Ghaidaa, & Alharthi, 2022; Arnedo-Moreno & Garcia-Font, 2022; Chen, 2020; Min et al., 2019; Pfeiffer, Kriglstein, & Wernbacher, 2020; da Silva & Omar, 2021). Their proponents envision potential interoperability of game assets and immutability of records of their ownership as the main benefits of the technology in its desired implementation. Decentralized ledgers may (or may not, see Ducuing, 2019; Low & Mik, 2020) transfer the rights to own and sell game assets in a decentralized metaverse from game companies to game players. Similar futures have appeared in research of virtual worlds before, e.g., in Edward Castronova's *Synthetic Worlds* (2005). The core features of blockchain-based games are decentralization and 'disintermediation', or removal of intermediaries from peer-to-peer transactions. These exact concepts have already been discussed as early as in 2004 (Hunter & Lastowka, 2004), painting a utopia of mass creation and consumption, where the hierarchical value chain of cultural production has been reorganized into a peer-to-peer network ('amateur-to-amateur'), similar to decentralized architecture of today's crypto games.

Converting gaming skills and knowledge into financial profit is not an entirely alien idea for game researchers. Castronova and like-minded economists had long hoped that the invisible hand of the market would bring equilibrium to decentralized digital economic systems (Hunter & Lastowka, 2004); everybody would be able to live a

satisfying virtual life and even earn their living by playing games online (Castronova, 2008, 2020). This utopia is often uncritically reproduced in the ideology of blockchain-based games: they are advertised as 'play-to-earn' opportunities that give agency and power back to players (Axie Infinity 2020; Blockade Games 2022; DACOCO 2021). Many gamers, however, vehemently oppose NFTs in games, and the play-to-earn ethic of crypto games seems to be the primary source of discontent. Typical crypto games normalize the pay-to-win tendency that goes against gamers' understanding of fairness (see, e.g., Consalvo, 2009).

The positive effects of blockchain-based gaming at the grassroots level are yet to be seen. Existing empirical research into crypto games reveals speculative behaviors (J. Lee, Yoo, & Jang, 2019), prevalence of gambling mechanics (Scholten et al., 2019) and systemic unfairness (Sako, Matsuo, & Meier, 2021). The promises of ownership and control in such games also appear to be deceptive (Ducuing, 2019). As for now, academically speaking, the value of blockchain and NFTs in games is mostly discussed in relation to financial value (da Silva & Omar 2021, p. 870). It is true that new blockchain-based models such as initial coin offering (ICO) allow people to crowdsource the funds for independent game development and even make a profit on the game before it is even made. After that, however, the actual game may never materialize; the *Cryptozoo* project by the major YouTube celebrity Logan Paul makes the most infamous example among many (Coffeezilla, 2022). This normalization of deception and fraud in both small- and large-scale blockchain-based game development (or absence thereof) points at the shift in values of both developers and players, and to the change of power balance that is different from the initially proposed self-sovereign crypto utopia.

Early adopters of blockchain technologies suggest that NFTs may disrupt the traditional circulation of value to the benefit of players as opposed to major corporations. In the meantime, some of the biggest game corporations are embracing NFTs with the intention to fortify existing power relations in the industry. Although many game publishers and platforms such as Steam have distanced themselves from blockchain projects due to financial and reputational risks, other major companies such as Square Enix have already embraced NFTs in games. What is new, at least according to such documents as the infamous open letter from the president of Square Enix (Matsuda, 2022, 2023), is that gaming skills and experience are presented not as valuable and meaningful in themselves, but as means to an end, namely obtaining financial value. This goes against mainstream gamer ethics, according to which so-called gaming capital—specialized skills and deep knowledge of games—cannot be bought for real-world money (Consalvo, 2009).

In addition to economic observations, production studies of video games have to follow both the global and national distribution of capital and power. In the industrial context, "every video game becomes not just a site of play, but also a site of struggle over power and profit, one hidden under the guise of play" (Nichols, 2013, p. 31). This approach is important in multiplayer games in general, such as RPGs,

which exist in a continuous state of (co-)production labeled 'games-as-a-service' (Zagal & Björk, 2018, 326). When continuous game production becomes directly profit-driven, it eventually starts churning out "games-as-a-disservice" (Lehtonen, Vesa, & Harviainen, 2022), which are games that do not have value for the player. Blockchain-based games may follow the same trend, unless they offer legitimate means of value co-creation, in which financial capital is not the end goal. In order to go beyond the financial value, I will turn to the notions of cultural and symbolic capital in society and in game production in particular, so we can see how exactly blockchain technologies and NFTs disrupt value creation in the field of video gaming.

Key concepts: Cultural, symbolic and financial capital in the game industry

The concepts of *social*, *cultural* and *symbolic capital* in sociological terms first appeared in works of the French sociologist Pierre Bourdieu. Different types of financial and cultural capital can be exchanged at dynamic 'rates' and transform into more sophisticated forms, such as particular forms of specific symbolic capital that Bourdieu described in his later works. The canonical understanding of *cultural capital* can be found in *Distinction: A Social Critique of the Judgement of Taste* (Bourdieu, 1987), which was first published in French in 1979. It refers to one particular "set of actually usable resources and powers" (1987, p. 117) in society that is acquired through education. In a later lecture from 1983, Bourdieu explains that cultural capital "as legitimate competence, as authority exerting an effect of (mis)recognition" (1986, p. 245) is naturalized as symbolic capital, which is specific to a particular field in society. One important function of symbolic capital is to obfuscate factual power relations that are based, first and foremost, on uneven distribution of financial capital, which is often inherited. It remains an open question whether cryptocurrencies can disrupt the existing financial system, or whether they should be treated as a very particular form of symbolic capital. Games, however, provide us with a much clearer example of cultural capital that is naturalized as symbolic in the form of game achievements, skills and knowledge.

Bourdieu's theories have been used in game studies in two ways that I will describe as the *bottom-up* and *top-down* approaches. The bottom-up approach can be found in the studies of so-called gaming capital accumulated by gamers, as conceptualized by Mia Consalvo. In short, "possessing gaming capital is supposed to be about game players' superior playing abilities and knowledge about games" (Consalvo, 2009, p. 38). At the same time, the top-down approach to symbolic capital in games focuses on the agents who hold the most power in the gaming industry. From this perspective, Randy Nichols has applied Bourdieu's concepts in the area of game production studies to demonstrate how major game producers secure a dominant position in the field with economic (financial) capital (Nichols, 2013).

These two approaches can be combined in order to see the circulation of different forms of capital. For example, Consalvo also demonstrates commodification of gaming capital and selling it back to gamers, e.g., in paratexts created by the industry. In this case, gaming capital can be indirectly obtained via financial capital. More importantly, the gaming industry can decide and influence who holds the kind of gaming capital that is considered most valuable (Nichols, 2013, p. 32) (e.g., young middle class white men, because they have more money and time to spend on video games; see (Paul, 2018)). This example demonstrates the importance of mapping the flow of symbolic capital in order to explain particular cultures.

Building on Bourdieu, Nichols presents the map of video game production that shows all actors and the forms of capital that they possess (Figure 1). We can see that commercial game production in big studios has access to major financial (economic) capital (CE+), but their production is considered 'low culture', which signifies low symbolic (specific) capital. In comparison, small-scale game developers, e.g., 'indie developers', have a high degree of gaming capital (their games are considered a form of art), but low financial capital, because they do not always have access to resources in global game production (see, e.g., Pérez Latorre, 2016 for a Bourdieusian analysis of indie games).

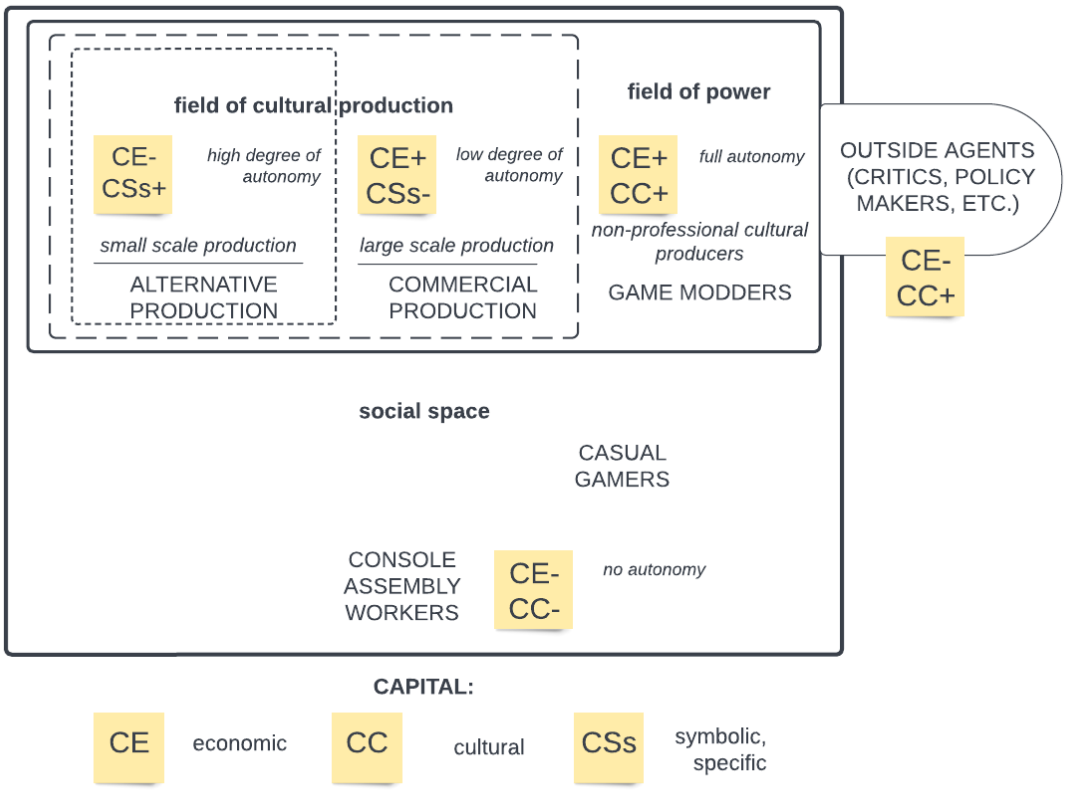

Figure 1. The field of video game cultural production, recreated from Nichols (2013) in Lucidchart.

One useful way to read this map in the context of our study is to pay attention to relations between economic (financial) capital (CE) and symbolic (specific) capital (CSs). Nichols describes symbolic capital as specific to a particular field, which is, in our case, gaming. As both Nichols and Consalvo use Bourdieu as the source, it is safe to say that specific/symbolic capital in Nichols's scheme is, in most cases the same as gaming capital in Consalvo's work: both researchers describe a set of resources, powers, knowledge and skills obtained in the field of gaming (the bottom-up approach), which game companies eventually learn to exploit in their favor (the top-down approach). We should also keep the dynamic development of the field in mind: Nichols' map comes from the early 2010s when game modders were gradually acquiring more power in the field—think about the late success of *Counter-Strike: Source* (Valve & Turtle Rock Studios, 2004), a mod of *Half-Life* (Valve, 1998) that was followed by the still internationally successful *Counter-Strike: Global Offensive* (Valve & Hidden Path Entertainment, 2012) (see Joseph, 2018). Valve later tried unsuccessfully to capitalize on mods and other user-created content in 2015 (Joseph, 2018). In a similar way, 'indie' game developers have found themselves in a tension between economic and symbolic capital (Pérez Latorre, 2016). In other words, the gaming community used to present many opportunities for game enthusiasts to convert their gaming capital into financial capital, as Figure 1 presents. But these opportunities would diminish later, with the aggressive capitalization of the gaming industry; in fact, crypto games are making a direct call back to these times in their 'play-to-earn' philosophy.

Relations between financial and symbolic (gaming) capital become even more interesting when we use the same map to show the landscape of blockchain gaming (Figure 2). One important difference is that the central space in the cultural production of blockchain-based games is now dominated by small-scale studios with a high degree of autonomy. This is illustrative of the hope that that application of blockchain in games could, at least in theory, disrupt the current power relations in the games industry. This scheme largely corresponds to the declarative purpose of leveling the cultural field and empowering gamers in their resistance against greedy corporations. As of 2022, there have been no major blockchain games comparable to AAA games in terms of complexity and creativity (the infamous *CryptoZoo* consumed as much money as a AAA production, but no actual game came out of it (Coffeezilla, 2022)). However, these small studios also have access to almost endless financial capital from the crypto field. At the same time, their symbolic (gaming) capital seems to be diminishing in inverse proportion to financial capital. The crypto games that they produce are rarely enjoyable or even playable as for now, and outside agents (critics and policy makers) always point to this in their cultural critique. These agents, however, hold no power in the blockchain social space.

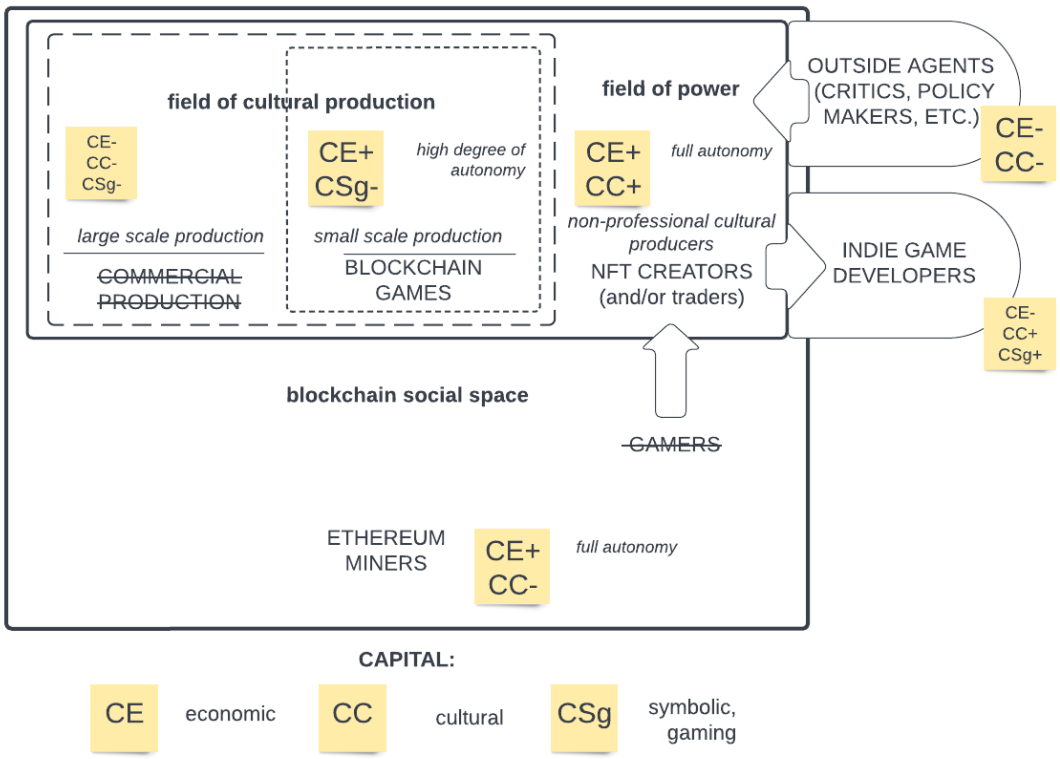

Figure 2. The field of blockchain game cultural production, based on Nichols (2013) in Lucidchart.

Let us take a look at the margins of the crypto game production field. Some indie game developers cooperate with the blockchain community, but their participation is rarely productive, for reasons that will be explained later in this article. Gamers, as a community, despise blockchain gaming and leave the field altogether. However, some non-professional creators find success creating and trading NFTs, sometimes game-related. Finally, 'miners' who calculate block hashes to keep the blockchain part of games going have been a considerable power, and could even influence how these games were run (Calvão, 2019; Kraft, 2019; Strehle & Ante, 2020)—at least, until the recent crypto crash. This is drastically different from Nichols' map, where assembly workers and other suppliers of basic gaming infrastructure have no power over the corresponding cultural field. Another question is whether this has any positive influence on the gaming aspect, as neither miners nor assembly workers apply any gaming-related skills and knowledge in their work.

This leads us to a contradiction: high gaming capital never coincides with high financial capital in this particular field of crypto games. As mentioned earlier, dedicated gamers tend to despise crypto games, and, as we will see below, indie game developers with any considerable gaming capital have no influence in the field of blockchain-based gaming. This poses the question: is it possible to exchange traditional gaming capital for other forms of value in the production of blockchain-based

games? Will the 'conversion rate' be favorable to those who know more about gaming, or who play or make better games? We will return to these questions in the conclusion.

To prepare the groundwork for further argumentation, I will examine one of the first and the longest-living blockchain-based games, *CryptoKitties* (Axiom Zen, 2017), and focus in particular on two cases when the elements of the role-playing game (RPG) genre were added to the game in the process of its continuous development. Correspondingly, these two cases represent the top-down and the bottom-up approaches to communal creation of value in game production. The RPG elements were chosen firstly because they were the first to be brought up by the community of players, and secondly because of the important role of role-playing in the history of video gaming in general. I evaluated the circulation of symbolic (gaming) and financial capital in these two cases, based on the market data openly available in the game, in free analytical services such as CoinGecko (CoinGecko, 2021), and custom informational resources created by players and fans of the game, such as Kitty Explorer (KittyExplorer, 2021) and KotoBaza (KotoBaza, 2022b). I started with the role and the meaning of 'fancy' tokens in the game's inventory, by applying the analytical framework of Dutton and Consalvo (2006). Dutton and Consalvo suggest that a systematic catalogue of particular objects in a game can reveal themes and patterns to be approached with critical analysis. Based on open data from the game, I created my own annotated catalogue that is available on the external data service (Serada, 2023a) and assessed its appeal to forms of value other than financial. Case 1 evaluates the effectiveness of this appeal to players who are expected to contribute to the value of the game, and Case 2 measures involvement from the game enthusiasts who actually contributed to its further development It appeared that circulation of financial capital was still the main driving force, and no form of gaming capital was valuable enough to change the course of its continuous development.

Case 1: The top-down approach: Value created by developers

According to Bourdieu, the structure of social space is defined by the overall volume and structure of capital in possession of various social agents (for instance, as depicted in Figure 1 and Figure 2). For this reason, this structure can be mapped as "the distribution of the various species of capital that function both as instruments and stakes of struggle in the different fields" (Bourdieu, 2018, p. 109). Therefore, the understanding of the overall structure of blockchain gaming as a social phenomenon can be gained by paying attention to different types of social agents (in our case, gamers, game producers and modders), and tracing various types of economic and social capital that they exchange. In the first case, producers of blockchain games have tried to create gaming-specific symbolic capital to capitalize on gamers. Let us see what kind of value and capital has been created, and how.

Artificial scarcity and the value of 'fancies'

CryptoKitties (Axiom Zen, 2017) is the first casual blockchain-based game and the most used application of the biggest blockchain platform Ethereum outside of decentralized finances and gambling (see Scholten et al., 2019) in the first three years of its existence. Its genre can be described as a monster breeding simulator (Serada, forthcoming) with collectable tokens that offers a very limited number of game mechanics. Breeding and trading are the two main ways to derive enjoyment from the game: speculation and gambling (Scholten et al., 2019; Serada, 2020). Both of these activities streamline circulation of financial capital with very little attention to symbolic or cultural value attached to the tokens. To construct economic value, the virtual economy of the game uses artificial scarcity (CryptoKitties, 2018a)—this principle of virtual economies is the basis of many online multiplayer RPGs. The value of virtual items is constructed in inverse proportion to their quantity, and rarer items are 'naturally' more desirable and expensive in a society. However, the price of products is also greatly influenced by their cultural and symbolic value, which becomes even more obvious on virtual markets of immaterial goods such as NFTs.

The decentralized architecture of the game suggests that players have full control over its economy, as the market of game NFTs is shaped by peer-to-peer trade. Predictably, same as in virtual economies described before (Lehdonvirta & Castronova, 2014, p. 45), players of *CryptoKitties* quickly figured out how to exploit artificial scarcity and turned it into abundance (Serada, Sihvonen, & Harviainen, 2021) by producing 'rare' and 'unique kitties' in quantities that greatly overwhelmed demand. To retain at least some form of control over the allegedly decentralized game, and also to appeal to broader cultural tastes of players, the developers started to introduce more, different valuable 'scarcities' in the form of so-called 'fancy' tokens. Unlike most *CryptoKitties*, 'fancies' have unique 'hand-made' art created by anonymous artists hired by the owners of the game. Online catalogues of fancy tokens can be found on the official website of the game (CryptoKitties, 2022), as well as on fan websites (KotoBaza, 2022a), and the full inventory used for this research is published on ResearchGate in the form of the annotated list of tokens (Serada, 2023a). Particular fancies are henceforth referred to by numbers according to the annotated list of tokens (Serada, 2023a), which also corresponds to the order of their introduction.

112 fancy types have been introduced during the first four years of the game's existence, and the first year was rather successful in terms of engagement and generating financial capital for the game's owners and the wealthiest players (see Serada, 2021). Fancies can only be obtained in a paid game of chance with rather low probabilities, sometimes within a very short time window or in a limited quantity. This makes them relatively expensive and, in some cases, actually rare, so the most experienced investors could actually convert them into financial capital (Serada, forthcoming).

Some of the fancies are standalone collectibles with unique artworks, while others follow popular tropes of mass culture (cyberpunk, zombie invasion, medieval fantasy, space invaders, pirates, etc.), which are often used in the worldbuilding of video games. The analysis of the inventory reveals several prominent themes: medieval fantasy (15 fancies), science and technology (16), the pirate-adjacent marine theme (10), music (9), and ninjas (6). There were also very distinct limited collections of meditating chameleons (3), winter leisure (3), western (4) and the pillow fight (3). The rest of the tokens appeared harder to categorize, although some of them were somewhat related to larger themes, such as cute alpacas also looked like they could be in an indie band (the music theme), and two zombie fancies could be grouped with the Halloween collection As is common in marketing in general, 17 tokens out of 112 are seasonal offerings: four unique fancies were issued around Christmas and New Year's Eve, four commemorated Halloween, three were for St. Valentine's Day, and one for St. Patrick's day. Three different fancies were issued during the Chinese New Year in an attempt to conquer the Chinese market (which did not yield any noticeable results).

The inventory shows a clear indication that the publishers of the game had hoped to exchange their symbolic capital in the crypto industry for cultural capital in other fields. To start, the music-themed NFTs may have been motivated by their only successful partnership with a brand outside of the crypto sphere, represented by the British rock band Muse (Muse, 2020). This partnership inspired the music fancy Mibbles (#102).[1] In total, six fancy tokens were produced in partnerships with other companies, creators and individual celebrities, although one of these partnerships, with the NBA superstar Stephen Curry, was cancelled (Wilmoth, 2018) (he later issued his own NFTs). In this light, sport-themed (#29 – Boot; #47 – Squib) and even food-themed fancies (see #31 – Catbury) may have functioned as 'white label' NFTs, as proofs of concept for such partnerships.

Coming back to Dutton and Consalvo's critical analysis of inventories, we can still see the positive side of fancies in terms of societal value. The fancy PussForProgress (#17) was issued on International Women's Day in 2018, and the Pride month of the same year was commemorated with Kittypride (#27) fancy. The same political stance was expressed in three tokens dedicated to significant, even if less-known, female figures in the blockchain entrepreneurship space: Sheila Warren (#38), Jutta Steiner (#34) and Neha Narula (#44). A noticeable number of fancy characters are distinctly female: the figure skater YuriCatsuki (#12), the DJ DjMeowlody (#64), the witches Furmione (#70) and Felis (#82), the archer Gwendolion (#74), and the rock musicians Janis (#95) and Joan (#99), apparently inspired by Janis Joplin and Joan Jett. At least

[1] Later in 2021, the creators of the NFT collection 'Bored Apes Yacht Club' were able to catch the attention of major music stars and generated immense financial capital by partnering with such artists as Eminem and Snoop Dogg (Popper, 2021).

three of the 'ninja kitties' are also female. Based on that, at least, in terms of representation, *CryptoKitties* has done much better than mainstream video games.

We may ask whether the value of fancies still followed the principle of artificial scarcity, and whether their rarity directly translated into economic value. With 112 types of tokens whose quantity ranges from 72 to 10,000 units in the game, we would reasonably expect at least some noticeable correlation between rarity and price. To answer this question, the open market data was collected from the official catalogue of fancies on 21 June 2022, soon after this feature was implemented in the game for the first time after three years (CryptoKitties, 2022). The results are presented in Figure 3.

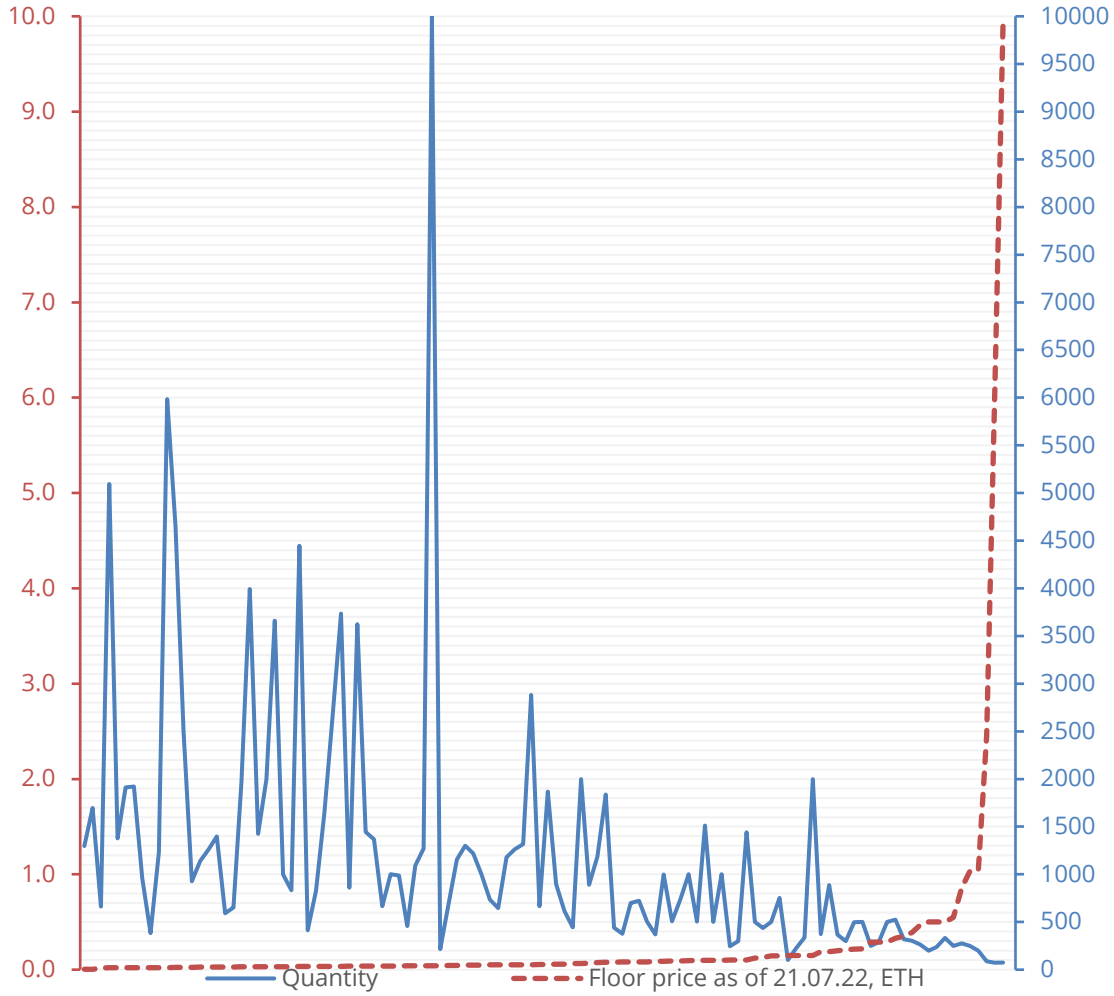

Figure 3. Effects of artificial scarcity on the price of fancy tokens. This graph shows relations between two series of values, not their actual proportions. The left vertical axis corresponds to the floor price of 112 fancy tokens in ETH. The right vertical axis corresponds to the quantity of each of the tokens, sorted from least to most numerous on the horizontal axis. The graph demonstrates that a visible correlation between the quantity and the price of a fancy token only matters for the rarest game NFTs that exist in quantities of less than 300 tokens.

A negative correlation between quantity and price of tokens of −0.169 was indeed observed, but this is insignificant. Mapping the data has revealed that scarcity only mattered for the tokens whose quantity in the game was around 300 or less. These tokens were significantly more expensive. According to KittyHelper.co (KittyHelper, 2022), the game has had about 4–5,000 active monthly players for most of the time of its existence, and the supply of 300 or less tokens would leave them reasonably desirable. Moreover, the rather chaotic pricing of not-particularly-rare fancies shows that there were other factors in their valuation, which could be aesthetic, historical, determined by the game culture, or any combination thereof. Eventually, the introduction of new fancies significantly increased player activity in 2018 (Figure 4). However, this effect became less visible in the following years as the number of active players diminished.

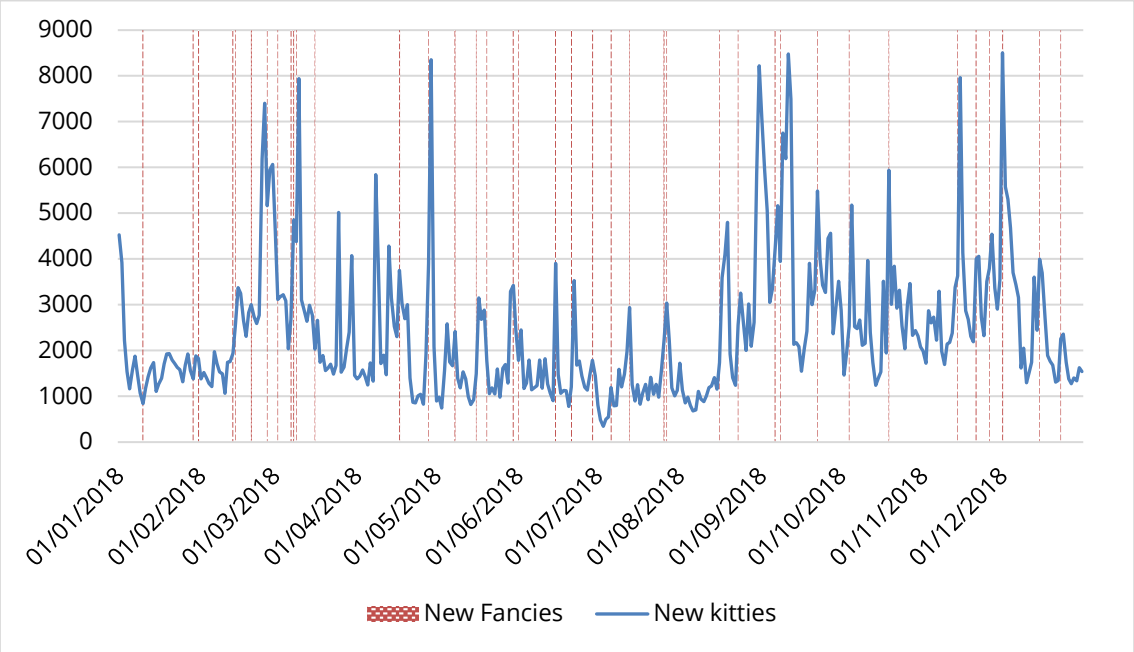

Figure 4. The total number of new tokens in the game (blue line) per day often coincided with the introduction of new fancies (orange ticks). This data shows the period of time in 2018 when this correlation was particularly noticeable. The data about newly bred kitties per day was obtained from Kitty Explorer (KittyExplorer, 2021), and the timeline for new fancies was obtained from KotoBaza (KotoBaza, 2022c).

We can clearly observe certain attempts to assign cultural value to the tokens by designing them along the familiar tropes of fantastic worldbuilding. By referring to the themes of fantasy, marine adventure, and zombie invasion, the inventory of fancies seems to afford playful practices that are not instrumental in 'playing-to-earn' and more similar to traditional video games, such as role-playing in fictional worlds along their typical narratives. This appeals to specific symbolic and gaming capital, and in the following section we will ask whether this symbolic capital was valuable enough within the community of crypto game players.

Let's not go to Catelot: Negotiating value exchange

Following the promises of decentralization and empowerment, the developers engaged in active formal and informal communication with players on Twitter and Discord. Announcements of new fancies were communicated in the company's social media and further explained in blog posts. Throughout the first three years, new themes and original characters were introduced in a seemingly unsystematic manner and described in a deliberately informal style, as if the developers of the game were writing fanfiction about their own creation. On the other hand, the tone of writing encouraged community participation in value co-creation, in accordance with the 'power to the players' agenda. Another way to see player input is in such cases to treat it as more "opportunities for exploitation and appropriation by industrial interests" (Nichols, 2013, p. 43): if game fans fill in gaps in the non-existent narrative of the game themselves, its owners do not need to invest even a small fraction of their generous venture capital funding into work of professional game writers.

Drawing from corporate communication, three different but likely interconnected fictional worlds were introduced in the official *CryptoKitties* blog: the steampunk world of Kittenheim that also touches the marine theme, the ninja-themed Obsidian Syndicate and the medieval fantasy world of Catelot. These fictional worlds were only briefly mentioned in blog posts and never developed into coherent, fleshed-out stories. Neither were they supported by any story-specific rules or interactive elements in the game itself. The story of Catelot was the most developed: it was first mentioned in the corporate blog on 9 November 2018, when a set of three dragon fancies (#41 – Dreggo, #42 – DracoJunior, #44 – Draco) was introduced to be released in November 2018. First, the fancy Draco was introduced. It is a cat that looks like a dragon, and its amount has been limited to 1,155 tokens. It was accompanied by Draco Junior, only 1,398 of which had been bred in the same year, and Dreggo, which was the easiest to breed and amounted to 3,624 tokens. All these fancies could only be bred in a limited period of time, and they still remain relatively valuable, as their floor price suggests, although still not exactly aligned with the principle of artificial scarcity (see the data: Serada, 2023b).

In the initial version of the Catelot's story, according to Dapper Labs, "a band of heroic Kitties—a brave knight, powerful wizard, and faithful squire—joined forces to battle a fearsome dragon cat that terrorized the kingdom of Catelot" (CryptoKitties, 2018c). The dragon was subdued in a non-violent pillow fight—a detail that was reused in the latest (at the time of writing) fancy collection in 2022 when probably no active players would remember where it came from. Several knights and wizard characters appeared in the game much later, although the squire was already in the game, he just hadn't been mentioned at that time. The first truly medieval fantasy fancy, Page (#25), has been in the game since June 2018, but did not receive much character development for a year (CryptoKitties, 2019a). Most of the time, this fancy has been the easiest and the cheapest to obtain.

The second fancy in the same style as the Page was released in September 2019 (and it would be fair to say that everybody had forgotten about Draco at that time, after 11 months of not developing his story). Again, the official announcement hinted at the existence of the larger fictional world of Catelot, probably with new quests, challenges and other experiences that would not be just gambling and speculation.

> Weeks ago Page, our fearless furry squire, blew into the great horn of Catelot, releasing a great meow that rang throughout the KittyVerse and called all the greatest warriors to assemble. (CryptoKitties, 2019b)

This new character was called Pawderick the Lancer, and the promotional post did not tell much about him, apart from the urgent call to "breed, breed, breed" this "simple Fancy" (CryptoKitties, 2019b), thus engaging into a rather expensive game of chance. After a week, the next character Purrzival was introduced in the same manner, without any explanation for his story, but, of course, with the amplified encouragement to "breed". Catseye, Gwendolion and Bartholomeow followed in November, with even less explanation beyond discussions on Discord. This was even more disappointing, as the art of these new characters was exceptionally good, especially in comparison to randomly generated non-fancy CryptoKitties.

So far, the promotional materials have played along the tropes of a role-playing game: a party of diverse characters armored with different skills and weapons gathers to embark on a quest, represented by yet another dragon character Shoopadoop. Shoopadoop, a dragon 'fancy', was released on 23 November; his appearance is very similar to Draco, but he was presented as a part of the Catelot story. The amount of creative work that went into drawing new characters was obvious; still, it was wasted on the gambling mechanics. There was no actual new gaming content. On the contrary, the whole game was going into a period of stagnation. The price of Ether skyrocketed in the following 2020, while the Ethereum network got clogged, because the Ethereum 1.0 platform, by its design, did not scale to the standards of mass adoption. As of June 2022, all Catelot fancies—Page, Pawderick, Purrzival, Catseye, Gwendolion and Bartholomeow—remained breedable, and available on the second-hand market for decent but affordable, by community standards, floor prices. Notably, artificial scarcity is still of very little use to explain the floor prices (see the data: Serada, 2023b).

It should be noted that the community has always appreciated fancies—it is just that there was not much to do with them, as the development of the story was pushed on the players themselves. Eventually, it may be that the creative direction that has led the owners of the game to Catelot has, in fact, been lifted from the game's most devoted fans: the design of the first 'kitty' that looked like a character from the Catelot game world was based on the drawing of the wife of one of the moderators of the game's social media (CryptoKitties, 2018b). This is one way to make profit of fan engagement by appropriating the creative work of fans for free and then capitalizing

on that (Nichols, 2013). Their cultural capital is indeed converted into financial capital, but only for the game publishers. In our case, medieval fantasy cat warriors and monsters could potentially become valuable to gamers in particular, if the game employed these NFTs in any meaningful manner—too bad that never happened, and the value of these tokens was still driven by gambling and speculation, as usual.

Case 2: The bottom-up approach: Outsourcing game development to players in *KotoWars*

The cultural field of blockchain gaming is different from video gaming in terms of structure. The community of blockchain adopters relies on its own specific forms of capital, such as the one embodied in fungible and non-fungible tokens on blockchain, and the value of these tokens seems to matter only to the gamers who are also 'crypto enthusiasts'. We should not, however, see this field as strictly hierarchical and always adherent to the rule of 'cryptocapital'. To the contrary, relations of power in blockchain gaming are distributed between many smaller actors, e.g., small publishers and individual traders, rather than centered around a few major corporations, as is the case in AAA video game production. These smaller social agents can influence the market in direct and indirect ways. Our second case constitutes the longest-living and the most consistent attempt to introduce gaming-specific capital into the blockchain field from the ground up. Still, individual players and modders did not possess enough social capital to make a permanent impact on the market: as Bourdieu writes in *Distinction*, "choices always owe part of their value to the value of the chooser" (1987, p. 91).

The unpaid creative labor of game enthusiasts has been encouraged in *CryptoKitties* from early on. If successful, that would mean that gaming knowledge and skills on the players' side (their gaming capital, in our terms) would translate into financial capital on the publishers' side, without the need for them to spend on actual game development. There have been moderately successful examples, which include the racing game of luck *KittyRace* (Min et al., 2019), and, more importantly to us, the simple card battler *KotoWars*. The latter was developed by a group of fan-developers and 'kitty' traders who also ran the community service *Kotobaza*. The owners of *CryptoKitties* were pleased to cooperate, while at the same time acknowledging that there was very little to *CryptoKitties* itself at that time apart from the breeding game of chance.

> If you're looking for a way to engage with your Kitties outside of breeding mechanics, Kotowars is the game for you. (CryptoKitties, 2018c)

Indeed, the purpose of *KotoWars* was to assign a new type of value to some of the abundant valueless tokens that resulted from unsuccessful or simply not well thought-off breeding.

> With high-generation cats being cheaper than breeding cost it allows users build decks [*sic*] they desire at minimum cost. (KotoWars, 2019b)

The high amount of gaming capital presupposes expert knowledge about particular game genres, such as RPGs, which was obvious from *KotoWars*' initial vision. In this modification, built on top of the existing game, the attributes of tokens are treated not in terms of artificial scarcity (as initially designed), but in the same way as attributes in RPGs: "basic and more or less stable aspects of agents that affect what they can do" (Zagal & Björk, 2018, p. 328). As in RPGs, these repurposed characters now have functional roles and privileged abilities "that are only available to specific types of agents: e.g. only the 'mage' can cast spells, only the thief can pick pockets" (Zagal & Björk, 2018, p. 328). To achieve ongoing playability and afford meaningful actions, the *KotoWars* team approached the existing *CryptoKitties* tokens as a set of playing cards whose attributes could be repurposed as 'the stats' in a card game (Figure 5).

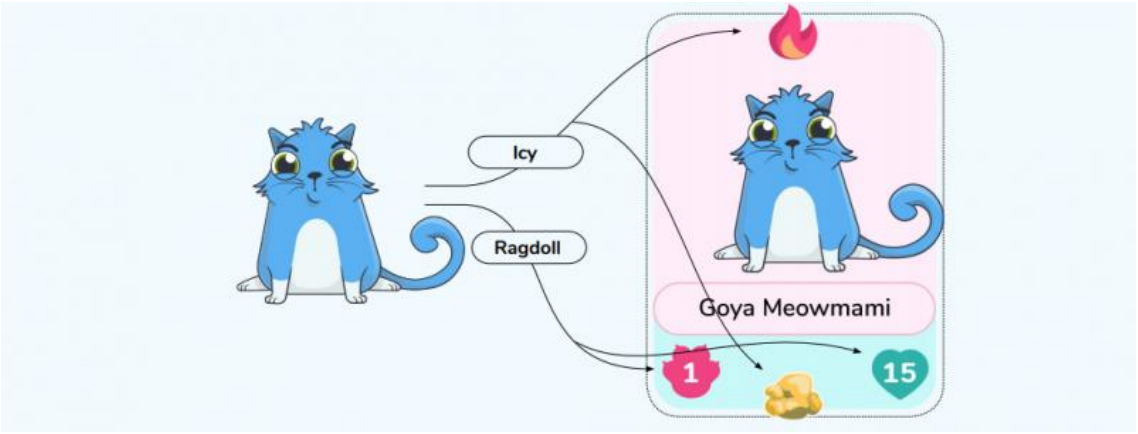

Figure 5. How *KotoWars* remaps attributes of *CryptoKitties* into game stats in a card game (KotoWars, 2019b).

The playable prototype of the game would use a deck of 33 cards: 32 typical kitties and the Champion, who represents the player (KotoWars, 2019b). The attribute of fur color would define attack and defense parameters of the token-based card, and the attribute of accent color would determine to which of four elements the card would belong. Fire would beat air, air would beat earth, earth would beat water, and water, again, fire, in a typical rock-paper-scissors mechanic. This would allow for enough combinations to design PvP battles between players who owned different stacks of cards, which means different collections of *CryptoKitties* tokens. This approach felt more professional than the lackluster treatment of game characters and story lines by extremely well-funded publishers of *CryptoKitties*: in fact, *KotoWars* had a professional game designer on the team (CryptoKitties, 2018c). The absence thereof in *CryptoKitties* indicates that the existing gaming capital (such as gaming knowledge, skills, and achievements) was not valued in this particular blockchain community.

Still, even this considerable amount of effort put into creation of an actually playable game did not result in surplus value of any kind. The beginning seemed rather positive. The alpha version of the game was tested in competitive play throughout 2019. Players would use their cards against the 'fancy' zombie Stitches and earn points for dealing more damage (KotoWars, 2019a). Most active *CryptoKitties* players gladly engaged into this new activity: there had been over 40 collective player sessions throughout 2019, with considerable prize pools that consisted of more fancy tokens, fungible 'Wrapped CryptoKitties' tokens that could be traded on some exchanges, and even *KotoWars*' own blockchain-based ERC-20 tokens, Kotowars Alpha Tokens (KAT) (KotoWars, 2019a). The owners of the game supported the initiative and promoted it on official *CryptoKitties* channels, and even the major blockchain analytics company CoinGecko demonstrated their support and listed the new token in their analytics (CoinGecko, 2019). However, the KAT tokens were never traded, which means that they were valueless in the field of blockchain adopters. As long as a game asset cannot be converted into financial capital, it is worthless in the field of crypto games.

But maybe this particular game mod has brought more gamers into the community, or, at least, satisfied their need for better games? Due to the designed transparency of blockchain, it is possible to track all players of tournaments by the KAT tokens that they received proportionally to their success in the game. Tournament tables available on *Kotobaza* also demonstrate that the best results belonged to the *CryptoKitties* 'whales' who already were very engaged in the gambling and speculation aspect of the game. Altogether, 78 players participated in *KotoWars* in 2019, although only about 15–20 players would return to the game several times. The top seven players who own more than 100 tokens can also be identified as 'crypto whales' and hardcore *CryptoKitties* players (Figure 6).

Now fancies were suddenly not valuable enough in terms of game design: they were specifically excluded from the first version of *KotoWars* because they have "customized appearance which doesn't follow the regular logic of assembling the kitty image" (KotoWars, 2019b). The game system was prioritized over its visuals, but ultimately it did not help. Despite the very active 2019, *KotoWars* failed to gain traction anywhere apart from the already-existing community of *CryptoKitties* adopters on Discord. The *KotoWars CryptoKitties* wallet still remained active; tellingly, it was renamed "Hope" as of 2022. Informal observation suggests that some of the developers would still participate in the game or express fond memories of it on Twitter. While some of them seem to have made some success at trading NFTs for financial profit, they were unable to convert their gaming capital into any other form of capital that was acceptable in the crypto field.

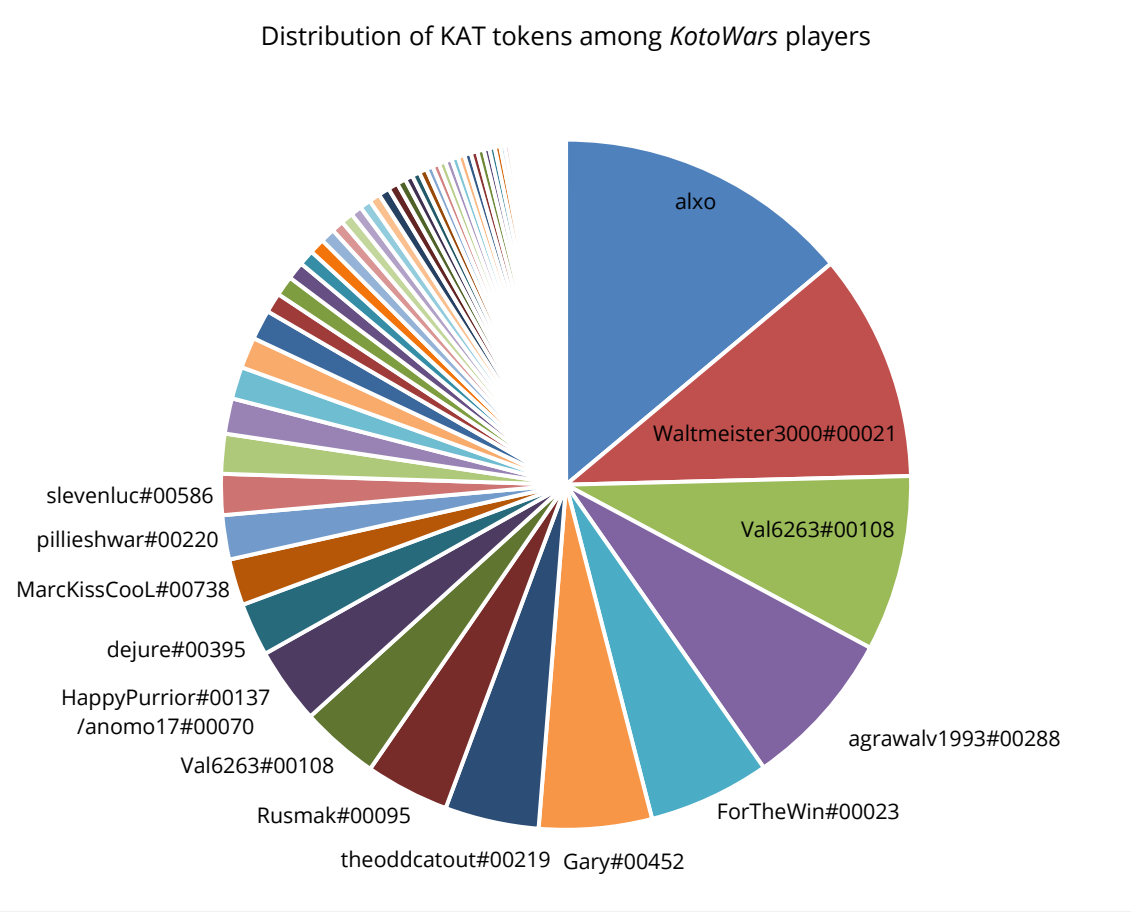

Figure 6. Relative shares of holders of KAT tokens labelled by their Discord name. Around 80% of tokens are distributed among approximately 20 returning players who played the game in 2019. Some players used more than one game account or cryptocurrency wallet. The data about the tokens is collected from CoinGecko (2021); the data about the players is collected from *KotoWars* (KotoWars, n.d.); two datasets are integrated by Ethereum wallet addresses.

Conclusion

This study has demonstrated that the flow of symbolic capital is directed by those who hold the most financial capital, or perhaps other forms of symbolic capital that are specific to the blockchain field. These newest forms of capital can become a very interesting subject for future research enquiries. This also resonates with Bourdieu's description of economy of cultural practices in *Distinction: A Social Critique of the Judgement of Taste*: "appropriation of legitimate cultural goods and the associated symbolic profits" (1987, p. 176) is defined by the structure of capital that the dominant classes possess, which is either financial capital (in the case of 'bourgeoisie') or cultural capital (in the case of the artistic bohème). In our case, the 'indie game bohème' that created *KotoWars* was not a competitor to cryptocurrency bourgeoisie (even though the same people could still represent a subset of crypto bourgeoisie in a different context, e.g., in NFT trading).

There is still charm, and the refreshing feeling of innovation, in such chaotic creative spaces as the *CryptoKitties* community. If only blockchain games were produced with respect to cultural rather than financial capital, they could result in new forms of cultural production where gaming capital could be exchanged for other forms, including financial capital, at a fair rate and without much friction, even if in a less direct manner. My choice of these particular cases shows that there is still hope for blockchain-based gaming, as long as it is about playing games, rather than profit-making. Although the story of Catelot was never fleshed out in play, it remains one of potential ways to revitalize the game due to imaginative character design based on RPG tropes. Despite its limited appeal, *Kotowars* remains one of the best pronounced attempts to build a player-driven experience in *CryptoKitties*. Besides, this field is in fact more equal and accepting in terms of gender and sexuality, which can be seen even in our example. This metaverse is not, however, a particularly safe space, unless one is 'crypto street-smart'—which, again, is often a matter of very specific social and symbolic capital in the crypto field that has not been studied well enough in this regard.

The emerging field of blockchain and crypto can be contrasted with the already well-established gaming community. Its rules have been thoroughly codified, starting from early gaming magazines (Consalvo, 2009; Kirkpatrick, 2012) and ending in today's rigid gender coding of gaming spaces (Paul, 2018). In the gaming field, direct conversion of gaming capital into financial capital goes against gamer ethics, according to which gaming capital is earned not just by gaming skills, but also by expert knowledge (Consalvo, 2009). In contrast, the 'rules of the game' in blockchain spaces are still fluid and improvised: these rules allow a high degree of cheating and deception, which is normalized in the community of cryptocurrency traders. This is in line with Bourdieu's studies of pre-capitalist societies that rely on covert circulation of social capital (e.g., his early research on Berbers in Algeria: Bourdieu, 1977). In Bourdieu's words:

> Societies in which the degree of codification is slight, in which the essential things are left to a feel for the game and to improvisation, have a tremendous charm about them, and in order to survive in them, above all in order to dominate in them, you have to have a certain genius for social relations, and an absolutely extraordinary feel for the game. (1990, pp. 80–81).

This 'feel for the game' is the most important quality for the one who wants to win at a 'crypto game'. As a result, those who succeed in blockchain and cryptocurrency spaces easily outplay gamers who rely on their cultural values of 'fair play' and the specific gaming capital that is created based on these values.

The idea of decentralized production in games is not new. Since the beginning of electronic networks, players have been actively co-creating their own playful experiences in massively multiplayer games. The promise of blockchain gaming so far has

been to help them build the 'metaverse' together on their own terms. Nevertheless, the emerging virtual worlds, including *CryptoKitties*, favor the participants who have large amounts of 'crypto capital', or simply financial capital, starting with the owners of crypto games and game platforms. Generous venture capital investments are provided to them precisely because these future 'metaverses' can directly convert social, cultural, and gaming capital of players into financial capital of investors (as in the case of Square Enix: see Matsuda, 2022, 2023). And this is also nothing new: as Hector Postigo wrote 20 years ago in relation to early multiplayer game communities:

> Paradoxically, the hobbyist status of game modders works against them as it situates their work outside of the programming profession, since commercial video-game companies are able to circumvent initial investments and maintenance costs for hired programmers and can simply choose from the most successful of the already-developed mods. (2003, p. 597)

This is the preferable mode of exchanging gaming capital into the financial one for major corporations, and crypto games seem to have followed this exact route, at least based on the cases that I have presented here. What starts as the creation of new value ends with the appropriation of the value created by the community, even though now it happens in new and more covert ways. One may admire the beautiful art of Catelot characters, but the names of the artists who created them remain unknown, in the same way as creativity is exploited in the traditional video game industry.

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eludamos
Journal for Computer Game Culture
Vol. 14, No. 1 (2023)

https://www.eludamos.org

A Future Already Past?

The Promises and Pitfalls of Cryptogames, Blockchain, and Speculative Play

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Eludamos: Journal for Computer Game Culture
Volume 14, issue 1, pp. 81–98

A Future Already Past?
The Promises and Pitfalls of Cryptogames, Blockchain, and Speculative Play

HANS-JOACHIM BACKE

Abstract

The article argues that blockchain-based games should be conceptualized as an emerging social practice that attracts financial speculators under the guise of online games. The article first outlines the blockchain-gaming discourse, which promises ownership and benefits to players, while it encourages financiers and publishers to exploit players. The article presents the performative discourse of blockchain advocates as well as the counterarguments presented by journalist, players, and developers, in order to demonstrate that arguments against cryptogaming are not anticapitalist and politicized, but mostly based on common sense. Then, the article investigates game studies concepts for their capacity to further explicate cryptogames and finds that neither gamification nor playbor are completely fitting. Instead, the article turns to the game research fundamentals of Huizinga and Caillois to cast blockchain gaming in a new light. From this perspective, games like *CryptoKitties* and *Axie Infinity* emerge as nested activities that can be approached as play of financial speculation, with the latter approach being significantly privileged in existing games.

Keywords

Cryptogames; Play-to-Earn; Huizinga; Caillois; gambling; speculation

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In 2021, the use of blockchain technology in games and related areas gained widespread media attention. Until that point, cryptocurrency had been the only well-known application of blockchain, yet even then, that key term often went unmentioned. That changed when Facebook, the world's largest social media company, changed its name to Meta in October of 2021, and emphasized not only a reorientation toward game-like interaction in VR, but also towards blockchain technology. At around the same time, mainstream news outlets reported broadly on videogame players earning a living wage by playing blockchain-based games (Nunley, 2021), and the NFT-craze of early 2022 further popularized the concept.

Eludamos Vol. 14, No. 1 (2023), pp. 81–98
https://doi.org/10.7557/23.7131

The following months saw a tumultuous discussion about the adoption of blockchain in the games industry. Ubisoft, one of the largest games publishers, announced that they would integrate blockchain into all their future games and started using NFTs within the company (Gach, 2022a), with several other companies following suit. A number of developers refused their distributors' demands (Gach, 2022b), and over 70% of the attendants of the 2022 Game Developers Conference expressed no interest in blockchain technology, with only 1% using it (GDC/Informatech, 2022, p. 10). The independent game distribution service itch.io accused major publishers of short-sighted profiteering, denouncing NFTs as a scam (itch.io, 2022), and even Steam, the largest digital distribution service, expressed skepticism about adopting blockchain technologies in the future (Fenlon, 2022), citing their catastrophic experience with Bitcoin in the past. Since then, the Play-to-Earn concept, promising a living wage from simply playing digital games, has been shown to be exploitative (Ongweso, 2022), and has been characterized by developers who experimented with it as "not sustainable at all", "zero-sum", and "Ponzi schemes" (Pereira, 2023).

The controversial nature of these discussions is not unprecedented. Robb, Deane and Tranter's (2021) review of the discourses surrounding blockchain finds it generally extremely polemicized, with positions either being unqualifiedly pro-blockchain or critical of it. Egliston and Carter's (2023) overview of the blockchain gaming discourse comes to very similar findings, highlighting that the discussion has focused less on facts and more on potentials: "While blockchains have existed for over a decade, they have largely been characterized by visions and promises of what the technology might do someday" (p. 4). The environmental impact of blockchain technology with its high consumption of energy, water, and electronics (Badea and Mungiu-Pupăzan, 2021) is a further complicating factor (yet one that neither the reviewed literature nor this article engages with in detail).

This article aims to go beyond this polemic by adding to the theoretical understanding of blockchain-based games. Detailed analyses are still quite rare, with *CryptoKitties* (Dapper Labs, 2017), one of the early adopters, having received the most attention (Serada, 2022). The existing studies have identified basic principles of blockchain-based games, their marketing, and their design (Harviainen, Serada, & Sihvonen, 2022), and have demonstrated their dependence on the volatile crypto-financial markets (Serada, Sihvonen, & Harviainen, 2021). Analyses of blockchain-based games from a traditional play-theory perspective are rather non-existent.

The argument presented here is that blockchain-based games in their currently most common form, often identified as cryptogames, present a new paradigm that can be profitably studied through existing game studies theories. To that end, I will first give a brief introduction into blockchain technology and cryptogames, before discussing them through the lenses of concepts such as playbor, gamification, gambling, or gamblification. These concepts capture aspects of cryptogames, but their essential peculiarities only emerge clearly through an ontological analysis with the fundamental theories of Huizinga and Caillois, which will round out the presented

discussion. I will show that cryptogames are a paradigm of social interaction that entails both play and financial speculation, intertwined in a novel, yet not completely unprecedented way. Huizinga and Caillois provide a framework within which cryptogames can be explained as a nesting of activities of different character—some of them playful, others not—which allows critical assessment of the contribution of play to finance and vice versa found in these games.

Blockchain and cryptogames

Blockchain is, simply put, a digital bookkeeping technology. It operates with a virtual ledger of transactions, usually to certify the ownership of goods. This ledger is kept in a decentralized fashion, meaning that it is not stored in a single location, but spread out over a peer-to-peer network of computers. This decentralized structure is considered a major reliability- and safety-feature, protecting the ledger against data loss and tampering. While blockchain is in principle agnostic toward the type of data kept in the ledger—the Ethereum blockchain can theoretically contain executable programs—its use is currently dominated by two types of data (Nofer et al., 2017). The first are cryptocurrencies, the original application of blockchain technology, a digital form of money where the units are non-unique, and where amounts of ownership of identical tokens are tracked. The second are non-fungible tokens, or NFTs, which are unique and non-divisible, i.e., virtual objects that can only be owned and traded wholly. The gapless records kept on the blockchain are meant to ensure that copying and counterfeiting are all but impossible. Both cryptocurrencies and NFTs are traded on the blockchain, but within different economic paradigms: With cryptocurrencies, the currency as a whole undergoes fluctuations of value, yet two coins will always have identical value, while two NFTs of the same issuer can have completely decorrelated values. In terms of property logic, cryptocurrencies function like money, where the individual coin or bill is categorically interchangeable with any other coin or bill, while NFTs are considered individual objects of value. In both cases, "their value is often largely speculative, hinged upon a belief in a future in which a particular chain or token is widely adopted" (Egliston & Carter, 2023, p. 2).

Decentralized finance (DeFi) has been the main application of blockchain in recent years, but other use cases have been proposed, like keeping a gapless record of provenance and storage of valuable perishables (Robb, Deane & Tranter, 2021), or the administration of national healthcare data on the blockchain. These applications are still mostly in early stages, also conceptually, as evidenced by a meta review finding that existing "papers do not handle blockchain's ethical impact on the healthcare industry either very widely or deeply" (Hyrynsalmi, Hyrynsalmi, & Kimppa, 2021). Critics even go so far as to characterize blockchain not as a flexible or universal technology, but rather as an intentionally undefined discourse, which "allows it to appeal to a range of different blockchain constituencies and their interests, something that provides it an alibi for extending into disparate areas of life (real estate, finance, corporate governance, cultural production, and so on)" (Egliston & Carter, 2023, p.

5). This goes hand in hand with blockchain, NFTs, and cryptocurrency usually being presented in very complicated and technical terms, lending them an aura of the "technological sublime" (Hoyng, 2023). That they are difficult to understand is portrayed as proof of their power and allows for doubt or criticism to be deflected as a lack of expertise. Like in other "techno-solutionist and innovationist ideologies" (Herian, 2019, p. 6), the intransparency of the basic concepts allows their proponents to promise widely divergent and even mutually exclusive benefits, while sidestepping critique.

These observations about blockchain in general hold especially true when it comes to its application to games. While there are implementation scenarios that would use distributed ledgers for non-financial purposes, the most widespread form of blockchain-game is the so-called cryptogame. In this format, popularized by *CryptoKitties* and *Axie Infinity* (Sky Mavis, 2018), one or several cryptocurrencies are being used, and owning game assets in order to eventually trade them for fiat currency is part of the core game design. Given that cryptogames are the most prevalent, and that the existing research has focused on them almost exclusively, the following argument will be limited to this type of game.

Unsurprisingly, the discourse surrounding cryptogaming resembles closely the general blockchain discourse. Egliston and Carter (2023) found that cryptogames are advertised to players with three promises:

> (1) cryptogames will provide a mechanism for resisting asymmetrical power in production contexts; (2) cryptogaming will allow players to 'earn' and 'retain value' and (3) cryptogames will afford a high degree of openness, of convergence and composability between games and the blockchains on which they operate. (p. 2)

When addressing publishers, cryptogame proponents emphasize that while players may own assets as NFTs, game companies can exert control over the trading of assets by levying fees (Blockchain Game Alliance, 2020). In the overwhelming majority of cases, games do not use one of the established blockchain solutions (like Ethereum), but a so-called sidechain, "a blockchain connected to (yet operating separately from) another blockchain network (generally to Ethereum)" (Egliston & Carter, 2023, p. 3). Tying game objects to the localized blockchain of a game or a game company subverts in practice all promises made to players, and negates some of the security benefits of blockchain, as evidenced by the successful theft of $617 million from the *Axie Infinity* sidechain (Chalk, 2022).

Game designers are, as already mentioned, largely skeptical about cryptogames, even when they have experience with them. In an interview, Chase Freo, CEO of blockchain game development platform OP Games, is quoted saying that cryptogame developers are struggling to create "a really good core loop that enables these

players to put back whatever they earn into the game" (Pereira, 2023). In part, this is certainly due to novelty of blockchain that developers still need to explore further.

I argue here, though, that to a great extent, the challenge of designing successful cryptogames stems from a lack of understanding of the ontology of these games and the unusual role they put their players into. In the following, I discuss cryptogames through several game studies models, to arrive at an understanding of how cryptogames differ structurally from other games, and what that means for the play they afford.

To that end, I focus methodically on strict, axiomatic game ontologies to establish abstract, categorical distinctions. Especially the role of the player would ultimately need to be analyzed with ethnographic methods, to determine how empirical players actually behave and feel. Using, e.g., Hjorth's concepts of ambient play and soft play would allow to explore the blurry boundaries between play and non-play, and the digital and the physical (Hjorth, 2018). Yet before focusing on these gray areas, it seems to me necessary to first establish some theoretical categories, which will, among other things, provide hypotheses for empirical work.

Gaming, gambling, and work

The first categorical question that needs to be asked is whether cryptogames should be considered games in the first place, or not rather a game-adjacent phenomenon better explained as gamification. For over a decade now, the use of game(like) elements in non-game contexts has been identified with this term, generally describing practices "aiming to 'transplant' some of the motivational qualities of games into contexts that are not inherently leisure-focused or motivating in themselves" (Raczkowski, 2014, p. 141). Just like cryptogaming, gamification "frustrates the practice of game design and reduces playing to a stimulus-response experience; whereas, games, and video games in particular, have been trying to differentiate and complicate the meanings of play in a digital culture" (Fuchs et al., 2014, p. 10).

However, two arguments speak against reading cryptogames through the lens of gamification. For one thing, they are marketed, conceived, and discussed as games. For another, gamification stands in a tradition of behavioral modification that operates with standardized, intentionally cheap or inherently valueless tokens (Raczkowski, 2014, p. 141), which is almost the polar opposite of the emphasis of value and uniqueness in the discourse of blockchain, NFTs, and cryptogames.

Preliminarily accepting cryptogames as games, it might seem productive to think about cryptogames as playbor, the hybridization of work and play (Kücklich, 2005). In its original and strict sense, playbor is the creation of value for game companies through monetizing the free labor of their players, e.g., when modders add longevity to a game through their work, or when a company has the right to outright sell their

work to other players. Again, this concept does not fit completely with cryptogames. In playbor, players create products in an act of productive leisure:

> While there have always been forms of productive leisure—crafts such as knitting and woodworking as well as hunting, gardening and fishing come to mind—the products of these activities may have never made a significant appearance in the marketplace in capitalist societies. (Kücklich, 2005)

Modders, Kücklich's central paradigm for playbor, are hobbyists whose work is exploited as that of freelance game- or level designers. They usually work not in the game itself, but in a level-editor. In the terminology of Carter, Gibbs, and Harrop (2012), they do not play the orthogame, i.e., "game proper", but engage in a paragamic activity, using distinct and separate tools to create products for use in the game.

In cryptogames, value is not created through the production of an object in an act of game-adjacent labor. Instead, players act in the game itself, drawing extensively on the strategic considerations and community-created knowledge of the metagame (Boluk & LeMieux, 2017; Carter, Gibbs, & Harrop, 2012). In cryptogames, the distinction between orthogame and metagame is, however, tenuous, if not impossible. The use of money-equivalent game tokens is central to cryptogames (and their monetization) and increasing the value of one's game assets involves studying the value fluctuations of the in-game currencies—as well as eventually those of the tethered general-purpose cryptocurrency once a player wants to convert their in-game winnings to crypto- or fiat currency.

Engaging in the metagame of the in-game market and its fluctuations is so central because in the so-far most successful cryptogames, the core game loop is extremely randomized. In *CryptoKitties,* "unpredictability is in the core logic of the game, which challenges luck rather than skills, of its players" (Serada, 2022, p. 64). Players have so little influence on the 'breeding' of their virtual creatures, that this 'production' in the game amounts to little more than a lootbox mechanic (Xiao, 2021): Players know that their activities will produce some new token, but the quality (and value) of it is randomly determined. In other words: the activity that produces value is decoupled from player skill, work, and the metagame of strategy formulation, while a second-order metagame (studying the in-game market) is crucially important for the player to actualize the value of their in-game tokens.

This can be illustrated in more detail through an example like *Axie Infinity*. This *Pokémon*-like game uses its own blockchain implementation, a sidechain, to track players' ownership of game elements. This sidechain is separate from its parent, Ethereum, yet not independent from it. The value of elements in the sidechain is therefore dependent on other, higher-level blockchains. *Axie Infinity* uses in direct gameplay application the resource Smooth Love Potion (SLP) to "breed axies". This creation of a

new virtual creature by using up some SLP is the core gameplay loop. The value of SLP is expressed in and convertible to *Axie Infinity Shards*, stylized as $AXS to signify their quasi-monetary character. The value of $AXS is, in turn, connected to and dependent on Ethereum. In practice, this means that during play in *Axie Infinity*, players primarily rely on SLPs, whose value can be converted to $AXS, which has equal value in other games of developer Sky Mavis. $AXS is listed by cryptocurrency brokers and can thus be traded for Ethereum, and the Ethereum can finally be traded for fiat currency. This makes the cost of breeding an Axie regularly change exponentially, because players need to buy SLP with $AXS, the price of which changes dependent on both its own course fluctuations and those of Ethereum.

There are numerous implications of this system, but the main points are that the value of all cryptocurrencies fluctuates continuously and strongly, based on demand and supply, and that, in addition, the trading of cryptocurrencies is subject to cost and fees. These two factors create a system in which the value of game elements is conceptualized as monetary, yet within a highly volatile system that makes game balancing in the traditional sense impossible. The resulting complexity has appeal both as a game design principle and as a generator of value in a marketplace, yet not independently of each other. This system creates "synergies between gaming, digital asset trading and online gambling" (Delfabbro & King, 2023, p. 2).

Unsurprisingly, the online gambling industry has embraced blockchain and the Metaverse, apparently with little effort and great success (Tan, 2022). The base principles of cryptogames have long been the operating principles of casinos: exchange fiat currency for house currency, win or lose house currency by playing, convert remaining sum back into fiat currency, with the house taking a significant fee for conversions and setting gambling odds in its own favor.[1] Beyond connecting their internal currency to the blockchain, many online casinos sell players nominal shares in the casino as a part of their buy-in, guaranteeing them small, but reliable payments in return, and allowing them to have other players use their account for a portion of their winnings. These design principles have been adopted in cryptogames, with the difference that these are usually not conceptualized as gambling, and customers are portrayed as players, not gamblers.

The permeation of these design principles to non-gambling contexts is, in general terms, what Macey and Hamari (2022) have termed gamblification: "Gamblification is the (increased) presence of gambling (or gambling-related content) in non-gambling contexts in order to realise desired outcomes. It incorporates two main as-

[1] The advantages of blockchain for gambling are often subtle: "In many of these contexts, cryptocurrency does not necessarily have to be used, but these new operations provide a way to gamble more anonymously (e.g. by using crypto from a Ledger device) or off a decentralized wallet" (Delfabbro & King, 2023, p. 7).

pects: affective (employing cultural values/signifiers of gambling); and effective, (employing gambling games and activities)" (p. 10). However, cryptogaming goes beyond the two dimensions contained in this definition, i.e., evoking the discourse of gambling and implementing gambling. While online casinos are a logical development in the history of gambling, cryptogames are only one element in the wider tendency towards

> the casualization of risk and gamification of finance. This trend is stirred by the arrival of (crypto) fintech trading apps, nonfungible tokens (NFTs) markets, social casino apps and other forms of gamble-play that are often deeply intertwined with social media platforms. (Hoyng, 2023, p. 2)

Cryptogames operate at a nexus of play and finance that cannot be characterized as merely playing for money. The development goes in both directions, and financial activity is discursivized as rather playful than serious, as "speculative investment and decentralized finance. … This means that people who engage in gaming or gambling involving any sort of blockchain technology may also be exposed to elements of financial speculation" (Delfabbro & King, 2023, p. 7).

Speculation and/as play

The central innovation of cryptogames appears as a seamless convergence between gaming, gambling, and speculative investment, in the sense that they are simultaneously situated as games and as investment (Play-to-Earn), while employing some strategies of gambling. Neither of these components is an optional metagame for players, even if each of them will attract "its own populations and these people will (to varying degrees) be involved with the other categories of activity" (Delfabbro & King, 2023, p. 8). Proponents of cryptogames "imagine players and developers as financialised subjects—adopting attitudes and practices of risk and investment" (Egliston & Carter, 2023, p. 3). While by far not all players or developers conform to this vision, cryptogames, like other forms of crypto-investing, "is likely to attract a particular population; namely, those who are engaged in speculative and higher-risk trading" (Delfabbro & King, 2023, p. 7). One might therefore be tempted to consider all cryptogame players speculators. Serada reports asking the developer of a "successful blockchain-based game" in a private conversation, how they differentiate between honest players and speculators, and he replied: "All players are speculators! This is the essence of the game" (2022, p. 65).

I would, however, propose to distinguish between (at least) three types of participants in cryptogames: (1) Speculators who approach the game as an investment opportunity; (2) players who approach the game *as* a game;[2] (3) gamblers who approach the game as gambling. The Play-to-Earn discourse (with promises of "asset ownership" and "safe trading") suggests to all of them that the activity carries little risk and promises higher chances of earnings than comparable activities, be it regular crypto-investment, traditional online games or online casinos. However, the system is strongly skewed in favor of speculators, and while it does not force players to employ manipulation or exploitation, it encourages them by characterizing the activity as a game, insinuating lack of consequence and voluntary participation.

The result is the almost inevitable development of Ponzi schemes. The most well-known case, *Axie Infinity*, demonstrates these systemic traits well: Early adopters, predominantly speculators, are able to buy the in-game tokens needed for play at low prices, because the game's operator needs to attract players. Once the game starts attracting an increasing number of players and gamblers, scarcity drives up prices of in-game tokens. Existing owners of in-game tokens—again, mostly speculators—can rent them out to new players for fees (often 50% of winnings). When newer players re-invest their winnings and buy their own tokens, transitioning to the role of speculators, this is envisioned to diversify and solidify the in-game community. At this point, though, the shrinking profit margins offer first-generation speculators little incentive to stay with the game, and they leave it in droves. This leads the value of in-game tokens to collapse, and newer players have no opportunity to regain their investments or sell their assets without horrendous losses (Chow & de Guzman, 2022; Ongweso, 2022).

This privileged position of speculators in cryptogames is an inevitable side effect of its blockchain roots. Hoyng (2023) distinguishes three distinct modes of speculation connected to blockchain: Speculation *about*, the planning of investors, entrepreneurs and revolutionaries based on the potential of blockchain technologies; speculation *through*, the development of blockchain-driven services as an alternative financing model in a competitive marketplace; and speculation *on*, the investment of end-users in blockchain services (p. 5). Investors actively engage in speculation *about* cryptogames, not the least through a performative discourse aimed at promoting blockchain in general; an increasing number of newcomer developers engage in speculation *through* cryptogames by creating software products; and speculative traders and gamblers speculate *on* cryptogames by engaging in the games to make a profit.

[2] Given the testimony of *Axie Infinity* players who naively accepted the promise that they would earn a living wage by simply playing the game (Ongweso, 2022), it might make sense to consider them their own category of play-workers.

The idea of the speculator-as-player is, of course, not new. Huizinga already observed this conceptual affinity in a passage that bears quoting at length:

> The hazy border-line between play and seriousness is illustrated very tellingly by the use of the words 'playing' or 'gambling' for the machinations on the Stock Exchange. The gambler at the roulette table will readily concede that he is playing; the stockjobber will not. He will maintain that buying and selling on the off-chance of prices rising or falling is part of the serious business of life, at least of business life, and that it is an economic function of society. In both cases the operative factor is the hope of gain; but whereas in the former the pure fortuitousness of the thing is generally admitted (all 'systems' notwithstanding), in the latter the player deludes himself with the fancy that he can calculate the future trends of the market. At any rate the difference of mentality is exceedingly small. (1949, p. 52)

Huizinga's observation that 'playing' or 'gambling' at the stock exchange are a matter of philosophy (and self-delusion) is certainly a provocation to investment-economists who have elevated the minimization of chance to a science. Yet for the amateur speculators of the DeFi age, Huizinga's judgement might hold true, particularly in cryptogames with their contradictory promise of Play-to-Earn.

Huizinga and Caillois base their views of games on a strict distinction between play and not-play, often referred to as the magic circle—a concept that has been controversially discussed within game studies (Calleja, 2012; Stenros, 2012). This distinction is, however, not an unquestioned, absolute certainty, as the above quote demonstrates. Their insistence on distinguishing play from not-play rather results from the conceptual and discursive blurriness of the everyday use of the terms play and game: "Upon waking up in the morning, everyone is supposed to find himself winning or losing in a gigantic, ceaseless, gratuitous, and inevitable lottery which will determine his general coefficient of success or failure for the next twenty-four hours" (Caillois, 2001, p. 47). That is why Huizinga specifies play in one of the most contested parts of his definition as "an activity connected with no material interest, and no profit can be gained by it" (1949, p. 13). As even Caillois criticized him for the negation of profit and thus the apparent complete exclusion of gambling from the realm of play, it is important to note that the second edition of the Dutch original (1940) as well as the German translation replace this sentence with the following short passage:

> All researchers put emphasis on the disinterested character of games. This Something, which is not the 'common life', *is located outside the processes of immediate satisfaction of needs and desires, it even interrupts this process.* It inserts itself between them as a temporary action. This action is self-contained and is executed for the satisfaction that arises from the

> execution itself. (Huizinga, 1987, p. 17, emphasis in original, my translation)[3]

With this, Huizinga defines games as disinterested, as autotelic and therefore, most importantly, as not aimed at subsistence. Continuing in this line of thought, Caillois asks what happens when play "is contaminated by the real world in which every act has inescapable consequences? Corresponding to each of the basic categories there is a specific perversion which results from the absence of both restraint and protection" (2001, p. 44).

The classic play theorists thus provide a categorical delimitation of play and games as a domain of activities in which actions have less severe consequences than otherwise and where one is temporarily free from the satisfaction of base needs. This ideal is, they admit, not always realized. When these conditions are not met, it is "necessary to take precautions against cheats and professional players" (Caillois, 2001, p. 45), because different participants have different goals and motivations. Participants in the same activity might be playing (i.e., part-time engaging in an autotelic activity), while others might be working (i.e., earning their livelihood in a professionalized full-time endeavor). Mixing players and workers, particularly when this is not immediately apparent to all participants, would be unethical in Caillois' opinion.

In cryptogames, the simple dichotomy of players and workers is generally tenuous, as already discussed. Therefore, I want to apply Caillois' ontology of play to the distinction between speculators, players, and gamblers proposed above by breaking down the different activities taking place and correlating them to the types of participants.

Caillois observes that types of play (agôn, alea, mimicry, and ilinx) appear in sometimes counter-intuitive combinations. Competitive games will, in their central activities, strive for the fairest possible contest (i.e., pure agôn). Because not all parameters can be controlled, elements of randomization (alea) are used in the service of fairness, e.g., a coin-toss to determine sides of a playing field or starting player. Another way in which types of play are combined is when individual matches are strung together in larger ludic structures with their own rules: The results of a single match of football, chess, or *Counter-Strike* will remain the same, yet have different signifi-

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[3] "Alle Forscher legen den Nachdruck auf den uninteressierten Charakter des Spiels. Dieses Etwas, das nicht das ‚gewöhnliche Leben' ist, *steht außerhalb des Prozesses der unmittelbaren Befriedigung von Notwendigkeiten und Begierden, ja es unterbricht diesen Prozeß*. Es schiebt sich zwischen ihn als eine zeitweilige Handlung ein. Diese läuft in sich selbst ab und wird um der Befriedigung willen verrichtet, die in der Verrichtung selbst liegt" (Huizinga, 1987, p. 17, emphasis in original).

cance when they are part of a league (where complex scores accumulate) or a tournament (where only winning might be relevant) (Backe, 2008, pp. 60–61; Caillois, 2001, p. 15).

Continuing this train of thought, one could consider gambling not holistically as games of chance (alea), but as the nesting of two play activities. Broadly speaking, gambling consists of placing a bet on the outcome of an event that is out of the gambler's control. This event can be random, like the toss of a die, but it does not have to be (like in sports betting or horse races, where the outcome is uncertain, not random). Following Caillois' distinction of types of play based on the emotional motivation behind them, the bet appears less as an act of alea than an act of ilinx, i.e., play undertaken to provoke a physical reaction like vertigo, fear, or excitement. Gambling has been shown in clinical tests to be correlated to the excitement of making a wager (e.g., Wulfert et al., 2008), which supports the view that gambling might be better understood as a nested game with an outer activity of ilinx and a nested, yet independent activity that might be pure alea, but does not have to be.

This view explains much of the fascination of classic casino gambling like roulette. The outcome of the nested activity is randomized and completely out of the player's agency, but probabilities are known quantities, and winnings are directly proportional to the likelihood of a player's bet, giving the player significant agency over the intensity of the ilinx of the outer activity of the wager (making more or less risky, bigger or smaller bets).

Gambling on sports or markets works with categorically different nested activities. Here, the subject of the wager is not a random event with known probabilities, but the comparatively unpredictable competition between often highly skilled actors. When gambling on such ludic-agônal nested activities, Caillois' second dimension of play, the ludus–paidia continuum, becomes crucial. Purely aleatoric forms of gambling (e.g., a spontaneous bet on a coin toss) have a large element of paidia, i.e., free play of "impulsive and easy recreation" (Caillois, 2001, p. 28), while betting on sports or stocks suggests ludus, which "provides an occasion for training and normally leads to the acquisition of a special skill" (Caillois, 2001, p. 29). To what extent players' skill actually figures into this activity, i.e., if this is ludus or only seems like it, is a wholly different question which Huizinga at least, as quoted above, generally discounts as a delusion.

Speculative play in practice

Applied to cryptogames, I propose that we find several forms of nesting, different agential roles, and obfuscation of the nature of the involved activities:

1. The central nested activity, the orthogame, can lend itself to misunderstandings. In her study of *CryptoKitties*, Serada observes that the game "was not designed as a competitive game—it was envisioned as creative exploration

of blockchain technologies that everyone could try for themselves" (2022, p. 70). In the final game, however, "unpredictability is in the core logic of the game, which challenges luck rather than skills, of its players" (Serada, 2022, p. 64). Players of the orthogame were thus suggested through initial advertisement and design cues that they were playing a game of paidic mimicry (playful creative exploration), which was later discursivized as a game of ludic agôn (skill-based competition), while actually being paidic alea (skill-less randomization). The activity and the degree of agency it offers are highly unclear.

2. The orthogame produces results that are in themselves unambiguous (e.g., win or loss in a contest, numeric rarity of a game token). However, these results are enmeshed in the blockchain-based economy of the game and undergo often extreme value fluctuations. Healing a creature after a battle might be ruinously expensive because of a sudden price increase in healing items or the currency used to buy them. These price-fluctuations cannot be unproblematically identified as a meta-game or a higher-order activity within which the orthogame is nested, because of the several levels of interdependence of tokens and the largely non-ludic nature of the market they are embedded in. *Axie Infinity*'s aforementioned interdependence between Smooth Love Potions, Axie Infinity Shards, and Ethereum means that indeed every player is forced into the role of a speculator to some degree. Here, the need to distinguish between gambler and speculator becomes apparent, because in gambling, the wager would be flexible, the act of betting voluntary, and the likelihood and value of results would be a known quantity—none of which are the case here. Instead, players are forced to either participate in a meta-game (which might appear ludic and agonal, but because of its complexity is rather contingent and thus aleatoric) or accept the aleatoric nature of game outcomes. When approached as a low-stakes game, this is indeed a novel aspect of cryptogames—non-negotiable, but market-dependent outcomes of play.

3. Cryptogames are, as shown above, framed by developers and interest groups as part of a speculative finance context. They thus attract participants who engage with the game exactly because of the economic entanglements that are a potentially unexpected and negative factor for players with a strict interest in the orthogame. Participating because of the possibility of financial gains means engaging in activities that are agonistic ludus, i.e., focused on the skill of buying or selling at the most opportune moment in a competitive marketplace. Unlike when speculating on the stock market, the speculators of cryptogames are not banned from manipulating the market they speculate on. Quite on the contrary, speculation on Smooth Love Potions or Axie Infinity Shards requires participation in the game, even if only vicariously through the activities of other players. When the activities of those players are framed as work (Play-to-Earn), speculators will have decisive influence on these players' actions. One way or another, speculators influence the value

of the first-order blockchain-based economy of the game yet have increasingly less agency over the additional layers of cryptocurrencies they are entangled with.

These are only the most fundamental dimensions in which the concept of nested activities of players, gamblers, and speculators manifest. Especially the 'salaried players' initially earning living wages (Nunley, 2021) and later losing their life savings (Ongweso, 2022) would deserve an investigation that is beyond the scope of this article. Yet the application of Huizinga's and Caillois's fundamental game ontology supports and nuances the notion that speculators are target and ideal 'players' of cryptogames (Delfabbro & King, 2023; Serada, 2022). By using blockchain in the same fashion as the financial industry, and by linking game economies to cryptocurrencies, cryptogames discursively suggest and practically privilege a speculative finance approach to them.

Conclusion: The emperor's new monetization

In this article, I have shown how blockchain-based games can be conceptualized as an emerging social practice that attracts financial speculators under the guise of online games. The article briefly summarized the discourses surrounding blockchain and cryptogaming, with their clashing promises of ownership to players and exploitation to publishers. It then investigated game studies concepts for their capacity to explicate cryptogames, finding neither gamification nor playbor completely fitting. Instead, the article turned to the game research fundamentals of Huizinga and Caillois to cast cryptogames in a new light. From this perspective, games like *CryptoKitties* and *Axie Infinity* emerge as nested activities that can be approached as play, gambling, or financial speculation, with the latter approach being significantly privileged in existing games.

The article has been solely focused on cryptogames, and thus only on games that use blockchain in the vein of the financial industry: The flow of investments and the processes of changing ownership are obfuscated in unnecessarily complicated systems that are geared toward impeding exiting the economy of the game. This manifests in a variant of what Schüll (2012) calls "addiction by design": Entering the game is easy, while cashing out requires to non-trivial effort, incurs fees, and is fraught with loss aversion (i.e., fear of selling too early), extrapolation bias (unwarranted extrapolation of past trends in forming forecasts), gambler's fallacy (overestimating the probability of an event because it has not recently occurred), and sunk cost fallacy. Maybe most importantly, players might not have enough funds (or time) to play more than one cryptogame concurrently, binding them in a very real sense to a product, leading to absolute customer retention, at least within one platform. From a publisher's perspective, this would be ideal, while for the individual, it might be risky and financially disastrous.

For the moment, cryptogames seem to have run out of steam, called out by the community of established developers and players as the empty promises of an Emperor's New Clothes scheme, but given the cyclical nature of cryptofinance (Wang et al., 2022), it is only a matter of time before a new generation of players, developers, and investors will be targeted by the aggressive marketing of crypto-interest groups. They will continue to project to players "a perception that everything to do with digital games is a form of play, and therefore a voluntary, non-profit-oriented activity" (Kücklich, 2005), while simultaneously casting all their players as thoroughly financialized subjects. And because of blockchain's aura of the 'technological sublime', players will continue to engage with systems that they don't fully understand and mistake exploitative or fraudulent activities for intricacies of complicated game they might make a living off, if they only played well enough. Yet even if cryptogaming complicates such established heuristics, some basic conceptual confusion could be avoided by a simple rule of thumb based on the magic circle: If you are winning money, you are gambling, if you are earning money, you are working, and in neither case are you playing.

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eludamos
Journal for Computer Game Culture
Vol. 14, No. 1 (2023)

https://www.eludamos.org

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Eludamos: Journal for Computer Game Culture
Volume 14, issue 1, pp. 99–123

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Abstract

This paper discusses the use of selfies in narrative-driven interface games, that is games that place the narrative within fictionalized interfaces resembling those of computers or smartphones, as methods of creating intimacy between the characters and the player, while simultaneously maintaining the player's separateness as a witness of personal stories, rather than their active actor. The article analyses how inter-character and player–character intimacy and emotional distance can be negotiated through the implementation of selfies into the narrative within interface games. The inherent intimacy of such games, which often tell personal stories of people of marginalized identities, is juxtaposed with the constrictions on the player's agency—both in the overall gameplay and in their inability to take the selfies themselves. Three games are discussed according to three frameworks used to discuss selfies as noted by Gabriel Faimau (2020): a dramaturgic lens (the selfie as self-presentation), a sociosemiotic approach (the selfie as an art of communication), and a dialectical framework (selfie as a social critique).

Keywords

Intimacy; consent; selfies; interface games

Although several scholars have already discussed the practices of taking photographs in videogames in terms of their aesthetics and ontology (Carita, 2010; Gerling, 2018; Giddings, 2013; Möring & de Mutiis, 2019), as well as their documentative function (Urban, 2023) and function in archaeogaming (Reinhard, 2018), less attention has been placed on the use of selfies within the gameplay and narrative—mostly due to the surprising scarcity of utilization of selfies within games in a way that is meaningful to the player experience and/or the narrative. Considering the large body of work focused on the meaning of selfie-taking and sharing on social

Eludamos Vol. 14, No. 1 (2023), pp. 99–123
https://doi.org/10.7557/23.6588

media in terms of self-empowerment, taking agency over one's image, and their significance in retaking one's narrative and visibility, especially for marginalized persons, this article focuses on the use of selfies in interface games: games which incorporate hypermediated and overemphasized interfaces, and which are notorious for deeply personal and (auto)biographical stories (Gallagher, 2019b; Kubiński, 2021).

In the analytical part of the article, three instances of selfie use are discussed within interface games, which are understood as a specific genre of narrative-driven and mostly independent digital games that frame the majority of their narrative and gameplay within the fictional interface that mimics interfaces of real-life personal computers, smartphone systems, or of specific apps (especially instant messengers). I have chosen three interface games as case studies, in correspondence with three different frameworks for understanding selfie use in social media, as identified by Gabriel Faimau (2020): *Cibele* (Star Maid Games, 2015) as an example of how selfies can be used as self-presentation; *Bury me, my Love* (The Pixel Hunt, Figs, & ARTE France, 2019) to discuss the use of selfie as a means of communication; and *A Normal Lost Phone* (Accidental Queens, 2016) to provide an example of selfie use that sparks a social critique.

Selfies as carriers of intimacy

A *selfie* refers to a photograph of oneself, usually taken with a smartphone or webcam, which is typically later uploaded to social media websites or shared in private conversations via instant messaging applications, forums, etc. The rise of selfies is emblematic of a culture that has become visibly visual and that is fascinated with display and visibility (Attwood, 2011). However, it is important to remember that selfies are more than just images: they construct narratives about one's body in association with tags and descriptions (Enguix & Gómez-Narváez, 2017, p. 3). For Amparo Lasén, selfies need to be considered as a:

> photographic genre that was almost exclusively artistic, inherited from painting, [that] becomes part of everyday photography. It is a banal and playful activity that produces new habits and gestures: like taking pictures in front of a mirror … or outstretching the arm to take a snapshot (2015, p. 62)

The uniqueness of the culture arose around the practice of taking selfies is closely connected to the importance of social media and the current omnipresence of screens in daily lives.

The researchers note the influence of selfies on the evolution of (personal) photography, understanding them as not only "a type of image but also and mainly a new practice" (Pastor, 2017, para. 1, own translation). As Paul Frosh notes:

> Where aesthetic developments are foregrounded, they too appear to be driven by device functions not principally concerned with image production or design. Hence the immediacy, ephemerality, and incessant performativity of contemporary everyday photographs are primarily explained with reference to the combined ubiquity, mobility, and connectivity of smartphone devices. (2015, p. 1608)

Edgar Gómez Cruz and Eric Meyer note that "photography theory has worked traditionally within two epistemological axes" (2012). On the one hand, photography needs to be understood as "a powerful technology for representation of reality", while on the other it needs to be understood "not as representation, technology, or object, but as the agency that takes place when a set of technologies, meanings, uses, and practices align" (2012, p. 204). By understanding photography as a sociotechnical network, they emphasize the importance of considering the larger sociocultural and technological contexts in which photographs are taken, meaning a wide range of elements from the very technology and the companies behind them and the culture of selfie-taking arose around specific social media platforms to, finally, the object of the selfie itself. In this sense, the selfie becomes metareferential in its own right, requiring the viewer to "make inferences about the nondepictive technocultural conditions in which the image was made" (Frosh, 2015, p. 1608), or, in other words, to understand *what* a selfie is, one needs to know specifically that a particular picture is 'a selfie' rather than just a photograph of one's body.

Similarly, Theresa Senft and Nancy Baym note that although the selfie signifies "a sense of human agency (i.e., it is a photograph one knowingly takes of oneself, often shown to other humans), selfies are created, displayed, distributed, tracked, and monetized through an assemblage of nonhuman agents" (2015, p. 1589). The consequences of that are dire, juxtaposing individual agency with the broader politics. Regardless of the agency over the taking of the selfie, once it's uploaded into the "infrastructure of the digital superpublic" (2015, p. 1589), one loses control over its meaning, shaped and affected by the policing discourses dictating one's self-expression and, more importantly, how they are supposed to feel about their own body, how it should be displayed and appreciated—or whether it should not be displayed at all, if it does not meet the standards of beauty decided by the given public.

For this reason, unsurprisingly, a large body of research has focused on the selfie as a tool of feminist activism in the rising awareness of sexual abuse and trauma (Saraswati, 2021) and as a mode of resistance aimed at reclaiming the vulnerability and expressions of femininity as "generative, connective, and political" (Schwartz, 2022), but also more broadly as a tool of self-identification and self-representation (Busetta & Coladonato, 2015; Fournier, 2018).

Within this research, the focus is often placed on vulnerability and intimacy as parts of the experience of taking and sharing selfies. Where vulnerability can be understood as a type of openness and fragility to harm on the corporeal, emotional, or

social level that is innate to human nature (Mackenzie et al., 2013), the Cartesian mind–body binary that emphasizes the superiority of the mind over the body has initiated the belief, prevalent in the Western thought, that vulnerability means weakness, and should therefore be associated with femininity. Whereas masculinity has become associated with independence and lack of excessive emotions (with the common omission of anger, which has been conveniently excluded from the popular understanding as emotion and so remains acceptable for men to express), the expression of emotions is not only considered feminine (often in the derogatory meaning of the word), but also frowned upon when considered to be in excess. In a world that constantly polices bodies which do not present within the perceived gendered and beauty norms, taking selfies can be seen as an exercise in (the networked) vanity (Pham, 2015) and thus become a way of reclaiming agency over one's self-representation. Despite the negative connotations of vanity and the critique of social media and online practices surrounding them as narcissistic, some authors such as Claire Tanner, JaneMaree Maher, and Suzanne Fraser comment on the "emergent notion of twenty-first century vanity … in which self regard is intertwined with relationality and responsiveness to others" (2013, p. 153). Minh-Ha T. Pham notes that although "networked vanity is particular to the age of social media" (2015, p. 225), excessive fashion and self-presentation, shunned as vulgar, narcissistic and over-pronounced, has always been a tool of activism and self-presentation for oppressed groups with a campaign such as #feministselfie aiming at retaking the agency to self-represent and reveal the prejudice and assumption behind the expectations of humility and lack of excess.

The question of how selfies negotiate intimacy is a particularly interesting one due to the seeming contradiction between the privacy of intimacy and the publicness of the selfie and social media. In the research on the self-representation of masculinities on Instagram and Grindr, Begonya Enguix and Erick Gómez-Narváez state, after conducting interviews with users:

> Intimacy still exists, but it has been strongly reconfigured not only in making the private public (such as in selfies of genitalia or one's body) but also in assuming that some things are hidden or that what is shown is just a 'character': one's 'true' essence is still kept invisible and remains 'intimate'. (2017, p. 10)

Since privacy is a "contextual concept" (Miguel 2016, p. 2), most tend to have an expectation that some information about themselves will remain private—Tom Gerety has called this "intimacies of personal identity" (1977). These intimacies include information about "close relationships, sexual orientation, alcohol intake, dietary habits, ethnic origin, political beliefs, features of the body and bodily functions, the definitions of self, and religious and spiritual beliefs and practices" (Nissenbaum, 2009, p. 123). As Amparo Lasén notes, "digital selfportraits performances are choreographic in the sense that they are highly relational and interactive, involving mutual

attunement and resonance, sometimes even dialogical sequences of call and response" (2015, p. 65), pointing to the fact that one's presence on social media often includes a network of relationships of various levels of trust and closeness, thus allowing for the structuring of intimacy.

The research on the construction of intimacy through the practice of sharing pictures points out that profiles on social media:

> are good examples of online settings where intimate storytelling is practiced, as people tell intimate stories about their family, their travels, or their parenting experiences. … the use of social media has become everyday activity that opens space for intimacy practices, especially *intimacy at a distance*. (Miguel, 2016, p. 1)

Anthony Elliott and John Urry use the term *intimacy at-a-distance* to define transformed intimacies enacted through the mobile phone use as "intimacy in conditions of intensive mobilities become flexible, transformable and negotiable. Mobile intimacy is fluid in both emotional and interpersonal terms" (2010, p. 90). Thus, these "photographs are forms of online presentation in front of a mixed audience of strangers, acquaintances and friends. They are gendered personal and public representations and performances of the self for oneself and for the others" (Lasén, 2015, p. 64).

In order to summarize the most common approaches used in the analysis of selfies, Gabriel Faimau (2020) notes the following three: a dramaturgic lens (the selfie as self-presentation), a sociosemiotic approach (the selfie as an art of communication), and a dialectical framework (selfie as a social critique). Each is described in more detail in the second part of this article in which the case studies are presented.

Interface games as the "most intimate genre"

Although the research on intimacy in digital games is mostly conducted in the context of in-game representations of sex and sexual practices, it is important not to narrow the scope of that research too much, understanding that intimacy is a much broader concept. Intimacy, after all, can denote a wide range of experiences of closeness and vulnerability between a person and assemblages of objects, places, animals, and other people. For Nancy Yousef, intimacy "crystalizes a tension between sharing and enclosing as opposed imaginations of relational possibilities" (2013, p. 15). Intimacy then can be described by the sense of tension between privacy and publicness. For Kaelan Doyle-Myerscough, intimate affect can be understood as "orientation in the present, made pleasurable and terrifying by the sensation of nakedness or revealing of oneself. It is fragile; the threat of embarrassment or humiliation or disappointment lingers at its edges" (2019, p. 5). This understanding of intimacy is particularly interesting in terms of selfies, which are characterized by their dual character: while, on the one hand, they can become tools for creating synchronous

intimacy between the person who shares and those who receive it, but, on the other, due to their online longevity they scatter the intimacy between countless, anonymous receivers. While that—as any act of vulnerability—can come with its own dangers, it also shows how the online presence might need new understandings of intimacy, not as a relationship between a few, selected individuals, but an act that allows for intimacy with strangers. This has been emphasized in the #feministselfie hashtag campaign, in which the selfie has been emphasized as a means of showing representation to marginalized people, and in which the intimate act of sharing the selfie touches a person the creator might not know about.

Intimacy outside of strictly sexual or romantic relationships has been discussed in various areas of video game research: from the discussion of the dancing games which function "as engines of humor, shame, trust, and intimacy, urging playing to dance like nobody's watching—while being tracked by motion-sensing interfaces" (Miller, 2017, blurb), to the intimacy of the haptic mobile games (Richardson & Hjorth, 2017; Hjorth & Richardson, 2020; Richardson, 2020), and to the intimacy of the stories seen in the interface games (Kubiński 2021).

The term *interface games* describes a group of digital games that frame the entirety or vast majority of their narrative within the fictional interface that mimics real-life interfaces—most commonly of computers or mobile phones (Gallagher, 2019b). Due to their emphasis on the software and hardware used in the experience of play and the hypermediacy of the interfaces, the interface games are necessarily self-reflexive and, thus, meta. Through the framing of the structures and networks that are familiar to the player, they offer metacommentary of the prevalence and significance of these devices in the player's life. Furthermore, as Rob Gallagher argues, the development of the genre is a response to the increased focus placed on the inequality and racism of the algorithmic systems, which "have pushed questions of data capture and storage, privacy and identity to the forefront of the popular conversation" (2019b, p. 759). As meta texts, they "can be read as an implicit critique of datafication … [asking] players to engage with digital biographical archives [and] imagine how personal information might be captured, shared, stored, and mobilized" (2019b, p. 759). Thus, they not only offer commentary on the technological context in which digital games necessarily are located but also, through the emphasis on hypermediated interfaces, they force the player to consider the software and the hardware. In this way, they rely on a paradox: they do not represent the interfaces truthfully or they insert them in the situations where they are not expected (e.g., in the clearly fictionalized game) but it is precisely their fictionality that requires a deeper insight into the game structure and which reveals the preconceptions about them, which the player brings into the game experience.

Hence, in their broadest understanding, interface games can be divided into (computer) desktop and phone simulators with further differences relating to the degree to which they mimic existing interfaces. While some of the interface games belong to the 'lost phone' type, in which the player character is equated with the real player,

who presumably found the phone in the real world and is trying to solve the mystery of its owner's identity (Navarro-Remesal & Pérez Zapata, 2019), others have the player assume the role of the fictional protagonist.

Setting the game's narrative within the interface can serve two purposes. On the one hand, it draws the attention of the player to the very thing that usually is designed in such a way to be transparent and unnoticeable, thus immediately reframing the player's attention. On the other hand, it juxtaposes the player's experiences of intimacy with their phone or personal computer onto the in-game narrative.

The former is a quality that arguably allows one to categorize this genre as meta games, that is games that continuously and purposefully self-reference their gamenessness. To understand the peculiarity of what takes place in interface games through the engagement of the interfaces—that is, something that usually is meant to be transparent, invisible to the characters and unobtrusive to the players—it will be useful to discuss frame analysis (Goffman, 1974). Especially useful is the simplified model consisting of three levels of meaning proposed by Gary Alan Fine, which include: 1) the "primary framework" of real people and worlds, 2) game contexts of rules that are enacted by the players, and 3) the gaming world, in which characters operate (1983, p. 186). Following the criticism and commentary of the model in the context of digital games (Deterding, 2013; Jørgensen, 2013), I use the following terminology: 1) extra-fictional (denoting the level inhabited by real-life players), 2) non-diegetic (the level of game rules, usually invisible to the characters), and 3) fictional (the level inhabited by the characters). Most commonly, these three levels remain separated from each other, apart from meta games in which the boundaries are blurred. For example, by bringing the action to the almost literal forefront in the interface games, the boundary between non-diegetic and fictional levels ceases to be as distinctive as it otherwise might be. At the same time, by proxy, the player and the character, who are usually separated by the uncrossable boundary set by the non-diegetic interfaces, are brought much closer together—so close, in fact, that the various levels collapse in on each other, consequently negotiating and transgressing the placement of the fourth-wall, that is the border separating the fiction from extra-fictional levels of meaning, which usually (until broken or moved) prevents characters from interacting with the players (Waszkiewicz 2020).

All three games discussed in the paper provide different examples of how the protagonist and player characters can be equated in order to increase the sense of immersion by inclusion of what can be referred to as a *shell character* which Trena Lee and Alex Mitchell (2018) define as a character devoid of any specific characteristics such as name, gender, race, or appearance, in order to insert the player into the game and partially eliminate the dissonance stemming from differences between the player's and the character's choices and preferences.

However, the goal of this article is not to focus on the fourth-wall-breaking mechanics of interface games but rather to showcase their ability to construct intimacy between the character and the players. Piotr Kubiński (2021) emphasizes that the in-game representation of these devices emphasizes what a crucial position these technologies have in the lives of their users, having replaced the traditional diaries and journals as one's most intimate possessions. This function of personal technology in this capacity is heavily emphasized by each of the three games discussed in this paper, showing how they are used to store intimate moments and photographs, conversations, and important memories, truly becoming an extension of one's body. This additionally closely relates to research on the emotional entanglement of human–computer interactions which constitute a crucial part of the studies focused on humans' interactions with various technologies. These can vary from the variety of parasocial interactions with digital game characters (Enevold & MacCallum-Stewart, 2015; Blom, 2020) to investigations on the affective impact and effectiveness of medium interfaces on the user engagement on social media, the ability of technology to recognize and adapt to the human emotional responses in what Rosalind Picard calls "affective computing" (1995). Especially relevant is the research on the use of mobile phones and their influence on the formation of social relationships, as well as their role within the private and public domains of life.

Interface games have been recognized by many developers and scholars as uniquely suited to represent the experiences of people of marginalized and oppressed identities (Gallagher, 2019a, 2019b; Kubiński, 2021). For this reason, in the discussion of the use of interface games in the representation of the experiences of refugees, Víctor Navarro-Remesal and Beatriz Pérez Zapata (2019) replace the concept of *empathy*, which has been deemed problematic by several game scholars (see: Ruberg, 2020; Schrier & Farber, 2021) and instead write about *compassionate play* (or "games for compassion"). As "the emotion that could potentially bring about change" (2019, p. 6), compassion refers to the concern for the well-being of other people. As such, it has the potential to transform the passive act of voyeuristically witnessing others' narratives into a more engaged and attentive play. Arguably, all three case studies structure the play so they facilitate this compassionate response from the player with the recognition that the experiences of the characters represented in these games might not be the same as that of many of the players.

Although initially diagnosed by Sigmund Freud as an act of looking solely for the purpose of achieving sexual excitement, the concept of *voyeurism* has been since broadened as an "urge to gaze at the alien and the intimate" (Calvert, 2000, p. 2). In this way, the term has been applied to media studies where it describes and understands the practice of looking as:

> [The] consumption of revealing images of and information about others' apparently real and unguarded lives, often yet not always for purposes of entertainment but frequently at the expense of privacy and discourse,

> through the means of the mass media and the internet. (Calvert, 2000, pp. 2–3)

Furthermore, this enabling of a voyeuristic perspective leads to the objectification of the character within the game. As Laurie Rudman and Kris Mescher's (2012) research shows, objectification of others is crucial in understanding one's tendency to devaluate and assert control over others. Digital games have thus been discussed in terms of the voyeuristic pleasure they give to the player. For example, Anh-Thu Nguyen offers an analysis of games such as *The Sims 4* (Maxis, 2014), pointing out that their uniqueness lies in the fact that:

> On top of the voyeuristic gaze, the player may choose to completely remove themselves from the active position of the player and become a voyeur instead. As each sim can act of its own free will, they are able to make decisions autonomously. (2019, p. 67)

Thus, since this game does not require the player to control every movement of the characters but rather assign them actions that they then carry out themselves, it allows the player to easily shift between being the active agent of the game and the passive observer.

Selfie as self-presentation in *Cibele*

The most common framework through which selfies are discussed is the dramaturgy of self-presentation. There, "the interpretation of the selfie is centered around subjectivity, self-presentation, and self-performativity" (Faimau, 2020, p. 3). In this understanding, self-presentation is a type of social performance that is influenced by the context and expectations of others, and in the case of social media, more or less anonymous viewers and interlocutors.

The role of a selfie seen as a tool of crafting and maintaining one's image is an important, albeit rarely discussed, element of *Cibele*. Developed by Nina Freeman[1] and released under the Star Maid Games studio in 2015, *Cibele* is one of the creator's several autobiographical games recounting various stages of her life from childhood (*how do you Do It?* and *Ladylike* released in 2014), adolescence (*Lost Memories Dot Net,* 2017) to young adulthood (*Cibele* and *Freshman Year*, 2015). The game focuses on eighteen-year-old Nina's experience of falling in love with Blake, a 23-year-old man whom she encountered through the MMORPG *Final Fantasy XI* (Squaresoft, 2002), which in *Cibele* is signified by the much simpler embedded game titled *Valtameri*. *Cibele* is divided into three main acts with gameplay featuring both the first-person

[1] In order to differentiate between the character and the extra-fictional developer, after Gallagher (2019a) I use the name Nina to refer to the former and Freeman to refer to the latter.

desktop simulation and the third-person *Valtameri* embedded game. The following analysis discusses the innovativeness of *Cibele*'s structure as an interface game, and analyzes the manipulation of the player-character relationship and the commentary it offers on the player's position as the voyeur through the incorporation of the in-game selfies.

Despite the game's first-person perspective, which has been traditionally associated with an increased player immersion (Thon, 2008; Denisova & Cairns, 2015), and which puts the player in Nina's shoes, there are several ways in which the game ensures the distance between the player and the character. Through the exploration of Nina's personal computer, the player learns about her developing relationship with Blake. Thus, even though one needs to progress in *Valtameri* to unlock further interactions between the two characters, the player is not able to influence the events in any way. As the game progresses, the two play together, chat, and exchange text messages until they meet in person to have sex. However, after the meeting Blake cuts all contact with Nina and breaks their relationship off, stating that the meeting was a mistake and he was not in love with her after all. Although some criticized game for its lack of satisfying resolution, abrupt ending, and the lack of player agency over the events, these elements can be easily justified, considering that the primary goal of the game is for its creator to tell her own story.

The game starts after a short full-motion video (FMV) cinematic in which Nina, played by Freeman herself, is seen in front of her computer. Afterward, the player is immediately given access to her desktop, the fictionality of which is emphasized by its soft pink hue that dominates the game, separating it from the default visuals of real-life operating systems. Having found themselves in control of the fictional computer's mouse, the player can browse the files stored on it.

Arguably, this initial cutscene, rather than facilitating the identification with the fictionalized version of Freeman, creates a dissonance between the player and the character by reminding the former that Nina is based on the extra-fictional person and, thus, of the autobiographical character of the game. The player is then quickly coded as a voyeur, peeking into and looking through the most personal of her possessions. At first glance, the game substantially limits the player's agency by offering a linear narrative the outcome of which does not depend on their actions. This quality is important in Kagen's understanding of the archival adventure genre as "composed of ludic repositories of material, carefully arranged, which the player turns into a narrative adventure by the way in which they choose to navigate the given space" (2020, p. 1008). These games can be thought about in terms of archival research because the player is not responsible for shaping or facilitating the story's progression: what is more, at the beginning of the story, the events have already taken place in the past. This means that the main characters of the story, about whom the player is learning and to whom they become progressively more attached during the span of the game, might already be gone or deceased at the beginning of the game. Through this, these games can be compared to the epistolary novel

genre, where the distance between the reader and the characters is also constructed both spatially and temporarily. The immersive character of these games can be explained through the "hyperreal overlap between fictive and real" (Kagen, 2020, p. 1010). Due to the player's closeness to the game's narrative through the suspended fourth wall, the player becomes one of the performers inside the narrative. While the vast majority—if not all—of digital narrative games offer the pleasure of voyeuristic looking, especially in the moments that clearly differentiate between the player-controlled action and those pre-scripted cutscenes that show characters behaving in ways that are not necessarily consistent with the player's choices and interpretation of the characters, certain genres and themes emphasize that role substantially more. Autobiographical interface games are one example of such games.

As Faimau notes in the discussion of the dramaturgic approach to studying selfies, "selfie cannot be separated from the online demands, presence, and interactions" (2020, p. 4) and *Cibele* definitely illustrates that the "online existence is inevitable" (2020, p. 4) and the intricacies of the selfie's life after it has been shared. The game starts after Nina has posted a selfie of herself on the game's forum. After she reveals her gender and appearance, others shift their behavior towards her in accordance with the misogynist stereotypes and biases they hold. This includes Blake, who reveals many of the attitudes and misogynist beliefs which are characteristic to some of the more masculinized gaming communities. These attitudes often result in patronizing behavior towards Nina and a constant downplaying of her abilities as a gamer due to her gender. When asked about her performance in *Valtameri*, Blake not only applies different expectations to Nina due to her gender, but also because of her attractiveness ("I'm not gonna yell at a cute girl"), and repeatedly emphasizes that her physicality is more important than her in-game abilities. As Gallagher notes:

> Freeman shows Nina, Blake, and their fellow *Valtameri* players to be bound together in a metagame with its own complex economy. Here affirmation, titillation, trust, advice and gossip circulate alongside virtual and physical goods, and women are encouraged to attain leverage by sharing selfies that function as 'bearers of 'corporeal capital". (2019a, p. 41)

The above illustrates another element of "the dramaturgic nature of self-presentation" which "also manifests through self-objectification", understood as a way people treat themselves and how they are treated by others based on their appearance (Faimau, 2020, p. 4). As already stated, selfies can both become methods of reinforcing self-objectification as they place constant monitoring on the bodies, but also can become a tool of self-actualization. In *Cibele*, the use of the selfie has an additional meaning as a tool for influencing the player–game relationship. The player begins the game from the role of an observer, a witness to Freeman's life as mediated through Nina's eyes rather than an active agent with an ability to influence the events of the game. The ontological difference between Nina and Freeman becomes

the most significant in those moments in which the narrative is framed and told through the contents of her computer desktop. In the game, the player assumes the identity of Nina as they browse the files on her computer as her. However, Nina is visible in the third person in the FMV cutscene in which, rather than having Nina imagined as an animated character, she is played by Freeman. This has two consequences: it makes differentiating between Nina and Freeman additionally difficult, and it creates a distance between them and the player, whose position of voyeur is emphasized once more.

The focus on the computer desktop as the framing device through which Nina's life and personality are explored utilizes the text-based and visual elements of the software, which allows for the commentary on the importance of selfie-making and sharing in the formation of one's identity, especially in the context of the online relationships. In *Cibele*, photography-sharing serves at the same time as a means of constructing intimate relationships with other characters and showing one's vulnerability, as well as emphasizing the ways in which one's privacy can be infringed, both within the fiction (by the other members of the forum Nina frequents) and across the fictional/extra-fictional border. The latter can encompass a range of interactions between a game, the individual player, and any additional agents including, for example, persons that have been shown the screenshots and game content without playing it. While, of course, there is a substantial ethical difference between the transgressions that occurred between Freeman's real-life colleagues, Nina, and the other characters, and on the axis of developer–game–player, all point to the complexities of the reality of taking selfies.

The lack of a pronounced cathartic finale in *Cibele* has caused some to voice criticism of the game, but for Gallagher it is rather a sign of the game's autobiographical and honest character (2019a). He points out that the game offers "a counterpoint to narratives stressing the dangers facing young women who seek intimacy on the internet, [also questioning] framings of networked intimacy as a necessarily deficient substitute for the 'real thing'" (2019a, p. 33).

However, despite the game's portrayal of how intimacy can be abused, the selfie as a tool of self-creation remains at its core. Although selfies do not constitute a major part of the game, their importance for the narrative as well as the negotiation of the player's distance from the game is worth acknowledging. The game lacks an in-game photography function and the player cannot influence the selfies that they find on Nina's computer. It is through access to them that the player learns more about Nina and can form opinions about her personality, but it is their location in her private files on her personal computer that changes the reading of them. The photographs shared by Nina with the other users of the forums were deliberately chosen by her as proven by the numerous folders containing rejected and unused selfies that the player can find on her computer. Despite Nina's claims to the contrary, the number and the naming of the folders reveal how careful and thorough the process of taking, categorizing, and selecting which ones to share (and to whom) and post (and in

what form) is. There are several folders containing her selfies, categorized according to their attractiveness levels and potential place of sharing, e.g., to be posted on the forum and shared with all users, shared only directly with Blake, or to be left on her computer not to be seen by anyone besides herself. As Amparo Lasén points out, the practices of taking self-portraits "extend the knowledge about your own body and ways of presenting it to other people" (2015, p. 66) and thus can be interpreted as feminist practices that remediate art and "vindicate the potentiality, energy, and liberation in the contemplation, performance, voluntary and defiant display of one's body" (2015, p. 62).

This indirectly, (albeit clearly) pictures Nina as a person who is very self-aware in the way she crafts her online image, which remains the most important facet of the dramaturgic approach of understanding selfies according to Faimau. Nina's selfies are tools of self-presentation and although she cannot always control the reading of her body from her selfies, they are the way through which she establishes how she wants to show her body and to whom, affecting both her interactions with other forum-users and how the player sees her. By allowing the player the access to the photographs that are considered by her as intimate and personal (not to be shared with others), the player's voyeuristic role is emphasized, tipping the understanding of the power imbalance between the character and the player. However, the auto-biographical character of the game and Freeman's use of her own face and body in these selfies excuses the player's peeking, implying that the consent was, in fact, given. This differentiates *Cibele* from the other two games discussed next.

Selfie as an art of communication in *Bury me, my Love*

The second framework described by Faimau, a sociosemiotic approach, discusses the selfie's meaning-making function as an art of communication. Closely related to the previous framework, it emphasizes the selfie-taker's agency over their own story, allowing them to negotiate "the interconnectedness between subjectivity and inter-subjectivity in a social relation mode" (2020, p. 6). Although this approach again mostly emphasizes agency over creation of one's image on social media, it is also worth considering the role of selfies in the communication between two agents—understood both as two characters and character and the player—and the ways in which it can create and convey intimacy between them.

Although the selfie in *Cibele* could also be read in terms of sociosemiotic approach, a more literal use of selfies as "a new communicative language" (Faimau, 2020, p. 6) comes from The Pixel Hunt, Fig and ARTE France's 2019 text-based adventure game *Bury me, my Love*, which follows Nour, a Syrian woman fleeing the war-consumed country to Germany. It is not without significance that the game, although not auto-biographical or directly biographical, is closely based on the experienced of Dana, a Syrian Migrant, whose story has been told by Lucie Soullier and Madjid Zerrouky in the article titled 'Le Voyage d'une migrante Syrienne à travers son fil WhatsApp' ('The

Journey of a Syrian Migrant, as Told by her WhatsApp Messages'). Both women worked closely with the game development team to create a game with a strong "focus on a single story together with the use of a single-character focalization" (Navarro-Remesal & Pérez Zapata, p. 9).

Several scholars recognize *Bury me, my Love* as a first-person refugee game (Reassens 2015, Navarro-Remesal & Pérez Zapata, 2019). Joost Raessens characterized refugee games as:

> belong[ing] to this so-called genre of "serious games": these games frame refugee issues by letting the player taste life as a refugee. Refugee games have the potential to convince the player of the veracity of a certain point of view or the necessity of a behavioral change. (2015, p. 245)

Navarro-Remesal and Pérez Zapata see interface games as particularly apt to present the point of view of refugees:

> Although practical calls to action are often included, the general focus is on *performing the refugee*, living from their perspective for a brief time, and blurring the barriers between their world and ours. Our phones become their phones. They talk to us via (fake) streaming. We make choices as them. (2019, p. 15)

This is particularly relevant considering that "mobile phones have been identified as possible tools to aid in refugee integration into new countries" (Bacishoga et al., 2016, p. 1) and that they have potential to "offer refugees efficient ways for social engagement and societal participation" (Vuningoma et al., 2020, p. 586).

The entirety of the game takes place within a fictional instant-messaging mobile app resembling WhatsApp. The player assumes the role of Majd, Nour's husband, who stays behind in Syria to care for his mother and grandmother. Although he is a character with a fixed name, appearance, and personality, the focus is rarely on him; he becomes a shell character, meant to mediate the player's relationship with Nour. As she progresses across countries, Nour keeps in touch with him: while at times she asks for advice or help with finding out information about routes and locations, she makes her own decisions and often faces danger on her own, thus recognizing and subverting several digital game tropes.

The player does not have the ability to begin the conversation with Nour and can only answer once she reaches out to them. If played in the game's real-time mode, in which the messages from Nour are distributed in time, forcing the player to wait minutes or hours for the answer when Nour is busy or lacks the ability to charge her phone or lacks signal. These periods of waiting decrease the emotional distance between the player and Majd, letting them experience and share the same restlessness and worry.

Rarely, Majd can send a selfie, but it is mostly Nour who sends photographs to him. These are of two kinds: the photographs of her surrounding and the people she meets that have a more informative function, and selfies that usually show her in the middle of everyday activity, which aim to create a stronger bond and establish the intimacy between the couple. This illustrates well the communicative role of the selfie, which "allows the selfie-taker to tell his/her own stories through an in the taken selfies" (Faimau, 2020, p. 6). In this sense, of course, Nour uses selfies as both a mode of self-presentation but, arguably, mostly as a communicative device through which she constructs the narration about her situation. Through selfies she can influence his emotions, show him that she is okay and in better (emotional or physical) shape than he might otherwise worry.

Additionally, the selfies serve at least a twofold function. On the one hand, from a more technical aspect, it helps the player immerse themselves in the world, introducing a visual element to the text-based game. On the other hand, it becomes an important tool of communication between Nour and Majd. For example, early on, Majd sends Nour a selfie featuring him lying in bed before falling asleep, meant to show her a glimpse of familiar domesticity and normalcy despite the danger in which she currently is. In other moments, selfies are meant to lift each other's spirits, showing Majd that Nour is safe. Whereas the non-selfie photographs have a more documentarist character, showing the struggles of the refugee's journey to safety, selfies tend to be charged emotionally. Through them, Nour tells Majd that she is alive, if not okay when she shows him her bruises; that she is persevering and maintaining a good mood, when she is sending a photo with herself over dinner with other friendly refugees; that she misses him and the intimacy between them when she is sending him photos on which she makes silly expressions; and finally, that she trusts him when she sends a photo only in her bra after having hid her money there, as advised by Majd/player.

The photographs of her body in these two instances stand in a striking juxtaposition to the selfies as means of self-presentation and regaining control over one's social image as in the case of *Cibele*, as they are deprived of sexual or romantic subtext. They do not contain information that is crucial to the plot, but still manage to add meaningful context for both the characters and the players.

Because of this, I found this last photograph particularly striking, since it emphasized for me the difference between the relationship between the characters—a married couple—and the one I was forming with Nour, who became dear to me by the end of the game. Receiving the photograph of a half-undressed Nour surprised me and took me out of the immersion, making me acutely aware of the difference between me and the character I embodied. It was precisely the intimacy and trust behind the act of sending this photo that made me feel uncomfortable, since it confronted me with my own, enforced by the game, non-consensual voyeurism. Having been inserted into the role of Nour's husband, without time to develop the relationship with her on my own, I clearly felt that the selfie was not meant for me. Where her state

of undress within the close relationship was completely normal, my outsideness and unfamiliarity made it inappropriate. Within the context of digital games' objectification of women's bodies, I was surprised by seeing this everyday intimacy. Once again, somewhat similarly to the voyeuristic act of looking through Nina's personal collection of selfies, in which, after all, she often poses in alike state of undress, being only in her underwear, they have become a tool for both engaging me into the story, but also for maintaining the distance in order perhaps to ensure that I do not become too familiar with a story that is clearly not my own.

Selfie as a social critique in *A Normal Lost Phone*

Finally, the dialectical approach is the last of the three on Faimau's list, in which the selfie is positioned as a social critique. Faimau notes that "there is a dichotomy between the idea of the sociotechnical element and the sociocultural aspect of the selfie. The dialectical approach to selfies bridges these streams" (6) by unpacking "the ethico-political dimension of the selfie as witnessing act that raises important questions of identity, voice and otherness in the digital media" (Chouliaraki, 2017, p. 81). This approach is used mostly when focusing on the issues of minorities and the activist and feminist use and significance of the selfie understood as a form of critique (Pham, 2015).

Chouliaraki talks specifically about how migrants use selfies, making *Bury me, my Love* an interesting example for analysis of the use of the social critique of the selfie. However, in this section, I want to discuss another game. *A Normal Lost Phone* (Accidental Queens, 2017) is one of the best-known interface games, which gained substantial interest and critique from both game journalists and scholars (Gallagher, 2019a; Navarro-Remesal & Zapata, 2019; Kubiński, 2021). While, admittedly, selfie-use in the game is very limited, it arguably causes one of the more controversial and therefore interesting examples of the use of the dialectical approach of the selfie.

Like previously mentioned interface games, the game's narrative takes place entirely on the level of the phone's operating system (OS), including a text-messaging app, a fictional dating app called LoveBirds and several websites, most notably including a transgender forum called beyourforum.cov. The main protagonist of the game is Samira, often abbreviated as Sam, an eighteen-year-old bisexual transgender woman who runs away from home after being rejected by her family and friends.

Through the use of the first-person point of view and the familiarity of the device's interface that makes it easy to put oneself in Sam's proverbial shoes, the game seems to strive to offer a glimpse into what can be interpreted as representative of many young people's experiences with transphobia, thus fulfilling the criteria for a 'game for compassion'.

As revealed towards the end of the game, Sam did not lose her phone so much as purposefully disposed of it in order to completely cut ties with her family. Similarly

to *Cibele*, the game does not discuss the danger associated with online presence and vulnerability, but when juxtaposed with gameplay that permits continuous violations of the character's privacy, it strikes as naïve.

As a 'lost phone' game type, *A Normal Lost Phone* locates its gameplay entirely within the fictional interface of Sam's phone. There, the player can freely move around the apps and can explore the contents of the apps in random order, until they encounter content that is password-restricted. The non-diegetic interface is minimal, and the player once again is not provided instruction on how to play the game apart from a laconic message shown at the very beginning of the game: "You have just found a phone. Find out the truth." By limiting the non-diegetic messaging, the game dramatically decreases the distance between the extra-fictional and fictional levels of meaning, temporarily equating the player's personal phone with Sam's lost phone.

After entering the game, a pop-up message informs the player about the existence of four unread text messages. After reading them, one learns that Sam's father is worried because she did not come home the previous night. Through reading them, one learns about Sam's recent eighteenth birthday party, her struggle with coming to terms with her identity, and the lack of support and acceptance from the people around her. Through further investigation, the player is inevitably directed toward LoveBirds dating app and the forum for transgender persons. Only there Sam managed to find a supportive community both online and offline after she was invited to attend Transpride in another city, an event focused on celebrating transgender and nonbinary identities and promoting their social acceptance and legal rights. According to Faimau, "the dialectical approach has been used by researchers who focus on issues of minority groups to interrogate the underlying ethicopolitical dimension of selfies" (2020, p. 7), including, of course, how queer youths use livestreaming and selfie to create connective identity (Walsh & Baker, 2017). Similarly, in the game the importance of selfies for the creation of social identity and activism is emphasized.

One of the most significant conversations within the game takes place on the LoveBirds dating app with an openly bisexual, cisgender man, Phil. The conversation between the two of them is short as at the moment of Sam's escape they have not been talking with each other for long yet, but it is obvious that they have already started to trust each other. Their conversation becomes intimate almost immediately as they both allow themselves vulnerability and bond over difficulties with coming to terms with their sexualities, their experiences with homophobia and biphobia, and their experiences with finding support in the queer communities such as the LGBT center which Phil attended. The similarity of these experiences creates intimacy between them which allows Sam to confide in and come out about her gender identity and the lack of support she receives from her family.

The conversation with Phil is an important one because it is used to manipulate the distance with the player and raises important questions about the player's role as a

voyeur and the moral character of their impunity. Rather than just assuming the role of a passive voyeur with the ability to look into Sam's life, the game requires the player to actively violate Sam's privacy in the form of not only reading her messages, but also hacking into password-protected applications and, finally, temporarily assuming her identity. The most significant transgression, and possibly the most uncomfortable for the player, takes place when the player is required to briefly continue the conversation with Phil: although this activity is restricted to sending the drafted messages saved on the phone, it also requires the player to find and send a photograph of Sam.

This is where the game encounters its main ethical problem. As the story progresses, it becomes obvious that Sam left her family in distress to search for a better and happier life. Although at the beginning it is assumed that the reasons for infringing her privacy are noble—once having identified the phone's owner, it would be possible to return their lost possession—in the course of the player's investigation they infringe on Sam's privacy in a way that is deemed to make many players uncomfortable. Regardless of the fact that such events are common in digital games, the lack of acknowledgement of this by the game allows a suspicion of the accidental character of the situation.

In order to find out Sam's entire story, and despite the seemingly limited gameplay, the player is granted quite a lot of freedom. The puzzle aspect of the game forces the player to search for clues in different applications, gallery, and text messages history. For example, Sam's father's date of birth can be used to obtain a new, temporary password to the forum which provides information about Sam's current location. Other puzzles require the player to send messages that Sam typed but never sent—regardless of the reason behind it. One of the most explicit violations of Sam's privacy is committed within her conversation with Phil. At its very end, he shares a picture of himself, asking whether she would feel comfortable doing the same—he does not pressure her and assures her that it is her choice and that he will respect it either way. In order to progress the story, the player has to obtain this picture from the private trans forum and send it to Phil.

The act of sending the photograph is necessary to progress the narrative, and it concludes a longer puzzle in which the player recovers a password to the private forum dedicated to transgender persons. There, they obtain Sam's private photograph which she did not feel comfortable enough to keep on her phone in case it was found by her family members or friends. The entire sequence becomes then an act of transgression that is difficult to justify and which is additionally problematic considering that Sam is a Black or a Brown woman, situating her on the intersections of several axes of oppression: trans women are continuously reported experiencing violence "at higher rates than other LGBTIQ identity categories" (Noack-Lundberg et al., 2020, p. 646) with these statistics increased dramatically for People of Color (Stotzer, 2009).

Uncomfortable play experiences (Jørgensen 2019) can, of course, be an extremely powerful tool for game meaning-making. Many games force uncomfortable and difficult experiences on the players in order to make them engage in philosophical and moral disputes and more critical reading of the text. By implementing selfies into the narrative (or, potentially, gameplay), games can add to the discussion of both their self-empowering and self-actualizing potential and the possibilities of abusing the trust of others. There lies the unfulfilled potential of *A Normal Lost Phone*, which seems to miss the opportunity to emphasize the consequences of the player's actions in the context of selfie-use, compassion and respect towards strangers on the internet and their privacy, and the safety of trans women in the online spaces.

Conclusions

Selfies—both the practice and art of their taking and the context in which they are posted on social media—are inherently entangled in questions of power and agency. While the feminist practices that arose around the acts of taking and, more importantly, distributing and sharing selfies are undoubtedly fascinating, their research typically requires sociological tools. The aim of this paper was not to enrich the research of the actual uses of selfies on social media, but rather to show how interface games can make use of selfies in the creation and negotiation of intimacies, both between the in-game characters and them and the player.

Despite photography's significance as an art form and, specifically, the selfie's importance as a meaning-making and self-actualization tool, neither is a very common mechanic within digital games. It is not surprising that it is in the interface games that one can find various uses of selfies, considering the intimate character and the themes in the genre. From the selfie being central the story in *Cibele*, to part of world-building in *Bury me, my Love*, and to an almost separate, individual, yet powerful instance of selfie-use in *A Normal Lost Phone*, these examples showcase meaningful uses of selfies in narrative. Further, it would be interesting to examine in more detail the ludic significance of photography-taking in games, in which photography plays a more important role, engaging the player and granting them more agency, from narrative-driven games like *Life is Strange* (Dontnod Entertainment, 2015) to the more recent *Pupperazzi* (Sundae Month, 2023), in which photography is the central mechanic. The question of agency is crucial here: these games that afford more agency to the player seem to create a more immersive experience while the interface games discussed in the article always maintain a certain emotional distance between the player and the characters even if, like in *Bury me, my Love*, it remains more subtle.

Acknowledgements

This article is a part of a project titled 'Meta-Games and the Player-Character Relationship' funded in part or whole by the National Science Centre, Poland (grant no. 2021/41/N/HS2/02029). For the purpose of Open Access, the author has applied a CC-BY public copyright license to any Author Accepted Manuscript (AAM) version arising from this submission.

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eludamos
Journal for Computer Game Culture
Vol. 14, No. 1 (2023)

https://www.eludamos.org

Playing on Life's Terms

Behavioral Strategies for Changing Situations

Elisa Wiik and Kati Alha

Eludamos: Journal for Computer Game Culture
Volume 14, issue 1, pp. 125–145

Playing on Life's Terms
Behavioral Strategies for Changing Situations

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Abstract

This article sheds light on the changes to play habits when there is not as much time or possibilities to play as before. The research is based on a survey and interviews of Finnish former active players, who now played less or had quit some game types they used to enjoy. Most of the respondents still played something, but the playing had changed on the level of games, playstyles, time management, and context. These changes were then used as behavioral strategies to keep gaming as a part of the changing lives: shifting to lighter options, integrating playing into everyday life, redefining co-play, and focusing on opportunities. The results highlight the complexity and continuity of the changes and negotiations, and further hint at how the borders of casual and hardcore playing are fluid and mixed. This complexity and fluidity of play should be the starting point of a game design that must be heard in the public and academic discourses around gaming.

Keywords

Lapsed players; casual play; casual games; changes; digital games; analog games; leisure studies

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As people grow older and get more life experience and more responsibilities, their relationship with their hobbies changes. Hobbies get left behind, new ones are started, and old ones are replaced with something else (Iso-Ahola, Jackson & Dunn, 1994). Sometimes when faced with obstacles that limit the time for leisure, people behave reactively and might end up abandoning hobbies they once enjoyed. At other times, barriers are negotiated successfully, and people are able to continue their hobbies as before. The negotiation can also be partially successful and lead to adjusting the hobby to the new situation. Rather than being a strict binary of discontinue/continue, the level at which the person participates is affected and different strategies are used (Jackson, Crawford & Godbey, 1993).

Eludamos Vol. 14, No. 1 (2023), pp. 125–145
https://doi.org/10.7557/23.7115

Game playing is an activity that is typically affected by changing living situations. Games can become an important part of a person's identity, and the lack of resources can lead to difficult negotiations. The reasons for the diminished role for gaming may be caused by the clash between the demands of the games and the responsibilities players have. Taking care of family and home as well as working and studying leave players less time to play. Games demand dedication and effort, for example in the form of time, concentration, skill, and preplay that might be too much for a busy adult player (Wiik, 2023). However, how gaming as a hobby is negotiated to fit into changing life situations has been studied less. One suggested way to keep gaming as a part of one's life is to adopt a more casual approach to it (Juul, 2009).

The following sections discuss the background through leisure studies and game research, especially from the point of view of changes in the hobby and negotiating constraints by using behavioral strategies. We discuss how leisure studies have examined barriers to leisure and constraint negotiations of different hobbies for decades while game research has mostly covered the topic from the point of view of changes in the life course and different generations. In the empirical part of this article, we combine a survey and interview datasets, examining how Finnish players have adapted their playing when faced with barriers, and how play practices have been changed on several levels when play has become a smaller part of their lives. The article reveals how casual games and play styles take an important part in these negotiations. However, these more casual approaches might not be satisfactory to all, and previous gaming practices might be missed. As this direction is increasing with game players diversifying and aging, this should be taken more into account in game development as well as in journalistic and academic discussions.

The data collected for this article in the form of survey (n=243) and interviews (n=22) was analyzed using thematic qualitative text analysis (Kuckartz, 2014). The theoretical framework consists of the theory of negotiating constraints by using behavioral strategies used particularly in leisure studies as well as game research about changes throughout the different life phases of players. The results are discussed particularly in the light of casual approaches suggested to lapsed players. This article is also a part of a larger project that examines Finnish 'lapsed' players, or players that have either quit playing certain game types, quit playing altogether, or reduced their playing. As the previous article of this project focused on the multitude of constraints these players face that can lead them to abandon their hobby, the focal point of this article is on the games and play types that do remain in these players' lives (Wiik, 2023). We want to bring more voices to the fore that represent players who struggle to maintain their hobby and find ways to continue it, maybe in a changed form. Understanding these players can also help game developers to find ways to better understand and cater to these audiences in the future.

Changing leisure practices

Changes in leisure practices have been studied in leisure studies for decades, especially from the point of view of constraints to leisure (Crawford & Godbey, 1987; Crawford, Jackson & Godbey, 1991) and the negotiation of those constraints (Ho & Cho, 2021; Jackson, Crawford & Godbey, 1993; Kleiber et al., 2008).The negotiation is a complex process, and different quantitative models have been created to explore the factors that contribute to the negotiation (Alexandris, Funk, & Pritchard, 2011; Hubbard & Mannell, 2001). Related to games, Tan, Yeh and Chen (2017) studied several models of the negotiation process and found that the intention to play massively multiplayer role-playing games is affected by the constraints the person is facing, attachment to that particular activity, social capital of the person, negotiation-efficacy, and motivation for the activity. Gender and constraints have been studied as well and according to Bergstrom (2018) women might have less leisure time than men because they are expected to take care of the children and the home on top of their job. In addition, if a particular game seems hostile to women and new players, it affects the desire to even try the game.

Changes to gaming habits have been examined particularly in the context of the life course of older digital players (Brown & De Schutter, 2016; Brown & De Schutter, 2019; Nevala, 2017) and those recognize that playing styles and intensity of play will go through many changes throughout the different life phases of players. As the focus is on the whole life course, though, playing during adulthood is only one part of it and is addressed in broad strokes. What is more, these studies examine only digital games, emphasizing the gap of covering other kinds of games, as well. Game research that tackles play habits of different groups such as board gaming parents (Rogerson & Gibbs, 2018), Baby Boomer generation of gamers (Pearce, 2008), older adults (Quandt, Grueninger & Wimmer, 2009) and Generation X gamers (Brown & Marston, 2018) delves more into details and contrasts the habits to either earlier play habits of the informants or to other player groups. It is important to note that these studies mostly represent certain types of people and life courses; most of the informants are married or have a partner, have children and have progressed from studies to a job or a career. Sexual orientation or other gender identities besides men and women are not mentioned.

While having children and aging are big changes in one's life, those are not the only types of changes that can affect leisure life and gaming. Several studies have found that changes related to studies and work, fluctuations in the monetary situation, waning interest, other hobbies and games, mental problems, behavior and attitudes of other people and a lack of co-players can all lead to quitting, reducing or otherwise modifying playing (Bergstrom, 2019a; Bergstrom, 2019b; Jiang, 2018; Wiik, 2023). In addition, changes related to the objects of play, such as game servers shutting down, can lead to quitting (Consalvo & Begy, 2015). These constraints seem to

correspond to the framework Crawford and Godbey (1987) developed, where leisure barriers families face were grouped into three categories: intrapersonal, interpersonal and structural.

In this article we examine the concrete behavioral strategies the respondents have applied to their situation, besides simply quitting their preferred hobby or reducing the time spent for the activity. According to Jackson, Crawford and Godbey (1993), strategies to overcome constraints are divided into cognitive and behavioral strategies. The cognitive strategies include modifying thinking related to the hobby, such as devaluating the importance, and the behavioral strategies include modifying the behavior of the individual, such as affecting the timing of the hobby. While the division of strategies was only a theory at the beginning, it has been later studied and confirmed for example from the point of view of high school students (Jackson & Rucks, 1995), women with outdoor adventure hobbies (Little, 2000) older people with chronic illness (Kleiber, Nimrod & Hutchinson, 2011), and serious amateur triathletes (Kennelly, Moyle & Lamont, 2013).

While some researchers have concentrated on the complexities and interdependencies of the factors affecting negotiations, our scope is smaller and rooted in the concrete changes and behaviors of individual players. By directing our gaze to the practicalities of change, we can learn more about what happens on the everyday level and how that might affect the game culture and game industry. We do that by focusing on two research questions: How have the playing habits of lapsed players changed and what kind of behavioral strategies to games and play have been adopted?

Data and methods

The data was gathered in the form of a qualitative online survey and remote semi-structured interviews between 2019 and 2021. The survey was aimed at Finnish former active players, was open for four weeks in the spring of 2019, and had mostly open-ended questions. Playing was defined broadly: The examples listed included computer games, console games, handheld console games, browser games, mobile games, miniature games, role-playing games, board games, card games, live-action role-playing games, pub games, and paper-based puzzles. While game studies tend to focus on digital games, this recognition of the multiplicity of the ever-expanding ludosphere is important (Stenros & Kultima, 2018).

The survey consisted of 15 questions. The questions were loosely grouped into three sections: playing, quitting and game culture. The playing section had questions about the past playing habits of the respondents as well as how their loved ones felt about their playing, the quitting section had questions about quitting and reducing play as well as other changes to their playing habits, and the game culture section had questions about the game cultural participation of the respondents. In addition,

the background info asked participants' age, gender, and consent. It was also possible to give out contact information for interview purposes. A link to the survey was shared in Finnish Facebook groups and discussion forums devoted to geek culture and playing, Finnish pensioners' Federation social media channels, and as a news article in a Finnish web portal covering games and entertainment. Paper flyers with a QR code and a web address to the survey were distributed to the libraries of Tampere, Helsinki, and Jyväskylä, the campus areas of Tampere and Jyväskylä Universities, and game related venues in Tampere.

The survey was answered by 247 people with 243 valid answers (see Table 1). The first part of this article concentrates on one of the questions from the survey: "If you are still playing, has your playing changed since you played actively?" The question was voluntary and was answered by 222 people. The answers were coded and categorized inductively using thematic qualitative text analysis (Kuckartz, 2014) by the first author. The process was iterative, and the data was coded in several stages, starting from highlighting and progressing to coding and forming main categories: games, playstyle, time management, and context. Subcategories were formed after that by coding the text passages. The second author joined the project after the coding process and familiarized herself with the data and the analysis.

The interviews were conducted by the first author during the winter of 2021 with a total of 22 participants and were aimed at deepening and updating the survey answers (see Table 1). The interviews covered mostly the same questions as the survey and the old answers were used to check if something had changed in the interim, as well as deepening the themes that were covered. The interviewees were selected from the survey respondents based on their stated willingness to participate in the interviews and on their survey answers to include a wide selection of different kind of players: those that had not quit playing completely, those that stated they had quit, different play types that had been abandoned, different ages and genders, and the various reasons players had for quitting. As game research tends to highlight the experiences of men more frequently, the goal was to give voice especially to other genders. Initially a list of 22 interview subjects was created, along with backup names. If a participant did not answer or declined, a request was sent to a backup participant. Eventually another backup list was created, and requests were sent until 22 participants had been reached and interviewed.

	Survey %	Survey N	Interview %	Interview N
Age				
60–69	0.4%	1	4.5%	1
50–59	3.3%	8	0%	0
40–49	20.6%	50	27.3%	6
30–39	57.2%	140	54.6%	12

20–29	17.7%	44	13.6%	3
15–19	0.8%	2	0%	0
Gender				
Woman	38.7%	94	63.6%	14
Man	53.9%	131	27.2%	6
Other	2.5%	6	4.6%	1
Rather not say	4.9%	12	4.6%	1

Table 1. Age and gender of the respondents.

The interview data was used to focus in more detail on how the changes were used to form strategies to navigate gaming in new life situations. The whole interview data was coded inductively with thematic qualitative text analysis (Kuckartz, 2014) focusing on the behavioral strategies. Both authors coded the full dataset, and compared and discussed the resulting coding. When the coding differed between the authors, it was unified through a discussion. This helped the coding to be more reliable and consistent. The resulting codes were then grouped into four main behavioral strategies: shifting to lighter options, integrating playing into daily life, redefining co-play, and focusing on opportunities. Constraint negotiation and particularly the behavioral strategies guided our approach theoretically, similar to for example Li and Stodolska (2007) and Kennelly, Moyle and Lamont (2013).

Results

The first part of our study reveals how playing had changed for the survey respondents. When other aspects of life meant that there was not as much room for gaming, playing was adjusted. Changes had happened in the levels of games, playstyle, time management, and context, which all had undergone substantial changes. The second part uses the interview data, uncovering behavioral strategies that use these changes to keep gaming as a part of the new lives and circumvent the demands they have brought. The quotes have been translated from Finnish to English by the authors.

Changing playing habits

Looking at the survey, lack of time and energy was a common problem among the respondents, be the reason for that work, studies, family life, scheduling playtime with co-players, or immaterial reasons. To fit into new life situations, chosen games were affected, influencing specific games, preferred game genres, or game types. This could mean playing mobile games that could be played in short sessions, games that the player could pause or save and quit at any point, or playing games that could be played while doing something else. Casual games were not the only option,

and in some cases the games could be as demanding as before but selected more carefully and consciously. As there was less time for gaming, more effort and care were put into choosing quality games worth playing.

New playstyles emphasized relaxation and sociality. On the other hand, as social playing required more planning and effort, playing alone could be preferred as well. Sometimes playing together was missed, and the player could find opportunities in brief multiplayer sessions if friends happened to be online at the same time. Time management had become an important part of planning play sessions since opportunities to play whenever were scarce. Co-players had busy lives and schedules, and players with family or demanding jobs had to find the time to play at night, on weekends, and during the holidays. The players also had to regulate their playing by having a shorter playtime. This could mean playing for two to four hours, or for ten minutes, depending on the person.

Changes to context, both tangible and intangible, happened as well. A few players had found they appreciated playing more than before because they got to do it so rarely. Other players felt they could not give their games as much attention as before and could not concentrate on playing for long periods of time anymore or on games that demanded time and devotion. Moving to a new location reduced the opportunities to play, or playing games happened in a specific place devoted to the activity.

These changes along with examples from the data are presented in a table below.

Level	Object of change	Example
Games	Curation of games	"Decreased time for my own hobbies forces me to choose the games I play more carefully. In other words, quality requirements have increased" (m, 40).
	Game genre	"When I was younger, I didn't care about first person shooters at all, but now I play them quite a lot. Mostly due to their popularity and multiplayer possibilities" (m, 34).
	Game type	"I can play mobile games with the minimal time I have for myself, for example on work trips or at night for a few minutes before going to sleep" (w, 43).
Playstyle	Motivation to play	"I still play browser games and a couple of simple puzzle games periodically, mainly for killing time. Back in the day playing was more strongly connected to the thought that it was supposed to be fun and not just passing the time" (w, 35).
	Casualness of play	"If games have side stuff in addition to the main story, I no longer do the side quests and I am not so much of a perfectionist anymore" (m, 25).

	Sociality of play	"I try to play social games, in practice board games. I am optimizing my time management so I can manage social relations in addition to playing. Before, I played mostly alone, timewise" (w, 42).
Time management	Playtime scheduling	"As we can start only after my child has gone to bed, gaming sessions are shorter and finding suitable game days is more difficult. We still play weekly though, or at least bi-weekly" (w, 30).
	Playtime length	"These days playing is rarer and the time available for it is shorter. The game is continued occasionally, and it might not progress for a long time. There must be a suitable time for playing and that leaves less time for other activities" (m, 40).
	Amount of playing	"I don't play even monthly, excluding smaller mobile and browser games. Proper game sessions (2–3 hours or more) no longer exist" (m, 36).
Context	Feelings toward games and play	"Playing has more weight and meaning. I appreciate gaming night with friends when I know that organizing it even couple times per month is challenging" (w, 30).
	Physical location of play	"I have to go to the cabin for instance for the weekend, if I want to play in peace" (m, 43).
	Concentration	"Before I might have played several hours in a row. Now I play for an hour, if that, but at any rate not over two. I just don't have the energy to concentrate on a game for that long" (w, 30).

Table 2. The levels, objects, and examples of changes from the survey.

Negotiating barriers through behavioral strategies

Based on the interviews, there are four main strategies to answer the restrictions and barriers for play due to changing possibilities and life situations: shifting to lighter options, integrating into everyday life, redefining co-play, and focusing on opportunities.

Shifting to lighter options

As games could be too demanding for the player's current life, an answer to this could be to then shift to lighter options. As playing immersive, long digital games might not be possible or wanted anymore, shorter, more casual games and mobile games sometimes replaced the earlier games. Especially starting new games was in some cases described as taxing, as getting into more engaging games required time and energy. Respondents had chosen games that for instance had no story, could be finished in a certain number of hours, or games that had short sessions and did not require remembering what had happened before, such as digital sports games.

Often this came with a caveat: the replacements offered very different experiences and could be used for different purposes as well. This type of compromise where the frequency and intensity were affected was similar to Little's (2000) findings of adventuring women. Respondents could imply that now they "had to" play only short mobile games, when before they had played long stretches regularly. Similarly to Amanda Cote's (2020) findings on women players, casual games were not always seen as real games.

Analog games could be replaced with lighter versions as well. Trying quicker and less demanding versions of preferred game types was seen as a possible option, such as board games instead of tabletop roleplaying games or casual board games instead of intense ones. One interviewee talked about possibly getting "larp-like enjoyment" from short escape rooms, larp hybrid experiences, and playing a non-player character in larps. Non-player characters (NPCs) in larps function as helpers to game masters and are used to fulfill certain scripted events. Another interviewee had planned to play the then upcoming mobile version of the analog collectible card game *Magic: The Gathering,* and Game Workshop's *Warhammer 40,000: Kill Team* miniature game that requires less miniatures and thus less money. According to Lauritano (2022), the digital versions of *Magic: The Gathering* are more accessible because of automation of several features, faster learning of rules, and timers that limit the length. Instead of being a "full-time hobby" (Lauritano, 2022), it can be played intermittently, and it helps players to fit the matches to their lives, even though not all of the players are satisfied with these features.

One way to lower demands for play was to make compromises not in the digital games, but in the ways they were played, especially focusing on changes in the playstyles. Lack of time or patience could cause the player to resort to guides and walkthroughs, where before the situations would have been resolved without help, or the player might consider no longer trying to achieve everything in a game. One respondent described the use of an autoplay option, decreasing the need to do all the actions by themselves and speeding up the game progress. The progress could also be slowed down; one interviewee described a case of the *Cookie Clicker* game that had been going on for years. While before it had been played more actively, since then the playing had transformed into checking the situation every now and then, possibly once a week. The game still advances in the background, and the player can do actions to progress it every now and then. This can be likened to the ways adventuring women adjusted their hobbies by enjoying the activity with less challenging conditions in rock climbing and expeditions (Little, 2000). Kleiber, Nimrod, and Hutchinson (2011) found that using adaptive aids was one way to adapt a hobby, and that was evident in our interviews when one of our respondents described constructing a playing platform for PlayStation Portable out of cardboard boxes and other office supplies so her hands would not tire so easily.

Another approach to a lighter direction was renegotiating the participation in the gaming activities in a way that not all players would be actively gaming. This could

include playing together, where one person would play the game and another would watch. These sessions could include making decisions together or passing the controller back and forth or helping the other player: if the game had a particularly difficult challenge, the other player could jump in for a while. This way the player did not need to keep retrying but could still participate in playing. The games that were participated in either by watching, helping, or exchanging controllers seemed mostly to be single-player digital games.

This type of playing has been labeled as 'tandem play' by Consalvo and colleagues (2018) and is described as "when two or more players engage with a single-player game together, moving through the game with a variety of potential motives". While both Consalvo and colleagues (2018) and Voida and Greenberg (2009) found that in tandem play sociability with other players was more important than the game itself, our findings suggest that tandem play can also act as a way to cross barriers when wanting to play a particular game. This seemed to be especially true when the skills of the primary player were not sufficient to progress in the game and help was needed, but games could also be seen as joint entertainment likened to a movie. In addition to help and entertainment factors, the demanding nature of games could be circumvented by tandem play. Preferring to watch instead of exerting effort to play is similar to Orme's (2021) findings of 'just watchers', those who just want to watch when other people play and not play themselves. She found that motivations for these watchers were that playing was seen as work that requires time, skill, affect, and the game culture is often toxic.

Integrating play into everyday life

As growing responsibilities—including family, work, and other activities—often take time from gaming as people get older (Wiik, 2023), these activities could also bring new possibilities for play. Family members could function as co-players, and playing with children was mentioned as a new opportunity to play. This type of play was described as "opportunity for cross-generational play" by Rogerson and Gibbs (2018), and many of our interviewees played especially board and card games with their children. Other opportunities could be actively sought, such as combining playing games with meeting friends, playing in connection with movie nights, or seeing friends in a café that had board games to play while socializing. Some had found opportunities for playing games at work, either playing alone or with colleagues during breaks, or bringing gaming as an activity for work. The latter could mean cases of youth work, where playing together was one of the activities to connect and discuss with the youth. Playing could also find its new place as a subsidiary activity while doing something else, such as listening to audiobooks or watching television.

As with the strategies connected to finding lighter options, the experiences these strategies provided often differed substantially from the previous experiences with games. Games played with children needed to be less intense and were often chosen by the children. Playing at work might restrict playing to coffee or lunch breaks,

keeping the sessions short and the games quick. When bringing games to activities, the social aspects were frequently seen as more important. Therefore, gaming could be secondary to talking and, for instance, having coffee together. Similarly, playing while doing something else means dividing the focus between the activities, and therefore restricts the games into certain types. In a way, these strategies helped to keep playing games as a part of the player's life but made them subordinate to other parts of life, where those activities dictated what kind of games and ways of playing could be chosen.

Redefining co-play

Lack of co-players is a common restriction to play (Wiik, 2023), and this became even more apparent during the Covid-19 pandemic. Remote play was a vehicle for maintaining relationships and spending time with loved ones especially during the pandemic. This allowed people to socialize through games when they could not physically meet, but also made distances between friends and relatives less restricting. Remote play brought new restrictions, too: games needed to be light enough to facilitate out-of-game social interaction, sometimes with people that were not that familiar with games. Digital multiplayer games such as the party game *Jackbox Party Pack* and the social deduction game *Among Us* were played online with friends, coworkers, children, and relatives. Board games owned by the interviewees were set up to play remotely via conference tools and cameras such as the paper-and-pencil game *Welcome to...* and the party card game *Imago.* Remote board gaming platforms such as Board Game Arena were utilized as well. This changing of the medium from analog to digital was also one strategy used by board gaming parents even before pandemic (Rogerson & Gibbs, 2018), but during the pandemic both video games and digital analog games became places to gather and socialize (Meriläinen, 2022). In addition, both digital and analog role-playing games were played in a relaxed manner remotely with friends. These games were compared to the other games these players had played earlier and were described as approachable and less intense. Other times remote role-playing happened with a mix of friends and strangers and could transform into a campaign played regularly.

Finding new co-players could be the catalyst to ignite the interest for a particular kind of game again. MMORPGs have bigger quests that need groups of players to collaborate. Joining a guild made of several people can help create a positive pressure to play. In the case of our respondents, joining a guild meant having people available for quests every day, and finding like-minded people to have fun with. In one case the respondent had "accepted the fact that she might not be able to play with her friends", so she found a group of strangers to play with. Several others had joined a group where they already knew a friend or a relative.

A few players went in the opposite direction; since playing with others was not always possible, a couple of respondents had played analog games with solo playing modes, meaning rules that are designed for one player only. Games mentioned were *Legendary* deckbuilding games and the *Warhammer Quest: Blackstone Fortress*

miniature game. One player mentioned solo roleplaying games, such as the narrative journaling game *Thousand Year Old Vampire,* as an interesting avenue to try out in the future. Journaling games have a narrative structure with writing prompts for the player. Selecting solo play does not necessarily mean that the player would not have anyone to play with, as Leorke found (2018). The motivations can be related to playstyle, genre and social reasons. And while having no one to play with is one of the latter, so are the struggles with frequency and preferences of play. Our three interviewees all had people in their lives to play with infrequently, but they sometimes played solo (or were interested in it) as well.

Focusing on opportunities

Sometimes the games could be as demanding as before but selected more carefully and consciously. As there was less time for gaming, more effort and care were put into choosing quality games worth playing. This could include preferring certain games or game types that the player knew they would enjoy. Respondents would describe replaying digital games they had loved, continuing to play genres they love, finding compact 10–20-hour games, and finding a game series that felt just right.

Finding the right time and place for play had become an important part of planning play sessions since opportunities to play were scarcer. Players with families had to find the time to play at night or on weekends. Even if the person did not have children of their own, their co-players often did, and especially analog joint play sessions required negotiating. Changing the playtime to occur in the evenings and nights is similar to older gamers interviewed by Quandt et al. (2009). Work schedules affected the playtime as well, and several players scheduled longer stretches of digital play during holidays. Some had a set time for playing, such as couple of hours before bedtime, or during morning if they had a night shift. Planning beforehand and time management were similarly important behavioral strategies of triathletes (Kennelly, Moyle & Lamont, 2013).

Finding the time needed for playing sometimes required a special place as well. Playing games happened in a specific place devoted to the activity such as a cabin, a bar with board games, board gaming café or just a friend's house. This could also mean organizing analog play sessions at home where it was possible to take care of children. The same kind of strategy of changing the location to either going out to play or moving the hobby from public venues to home was evident in Rogerson's and Gibbs' (2018) study. The placement of digital gaming devices at home was important too as age rated games were easier to play in one's own room out of the eyes of children, and a console that can be changed into a portable mode meant there was no need for a dedicated gaming corner in the apartment.

Kennelly, Moyle and Lamont (2013) found that triathletes had varying intense periods and periods when they prioritized other things. They called this kind of fluctuation cyclical commitment. Some of our interviewees seemed to do that as well and

were consciously rationing their gameplay. This could happen according to seasons when the mobile location-based *Pokémon Go* was played only during the warmest months, or a digital game played with a friend was discontinued because of beautiful summer weather. Fluctuations happened also when opportunities presented themselves in the form of trying out a new game or game type that was not that interesting in the end, or special game types such as escape rooms were played once in a while with friends and relatives. Players could anticipate holidays when they knew they had a period to play more intensely but were also open to sudden surges of interest; when they felt they got hooked on a game, they made room for it in their lives. The amount of playing fluctuated as well, even though it might have been less than it used to be, it still could be more than what the interviewee had played when they answered the survey.

Discussion

Changing life situations can affect a gaming hobby in various ways, yet often instead of ceasing the activity altogether, the players find new ways to still fit games into their lives. While these changes and new needs for casual games have been discussed before as gaming audiences grow older and diversify (Juul, 2009), the players' perspectives on the actual negotiations that happen in players' lives have rarely been studied. Some of the respondents had transformed their playing toward a more casual style of playing by adopting lighter games or playstyles. In previous literature, casual in the context of games has had various meanings. Casual games typically have more acceptable and approachable themes that attract as large an audience as possible while being relatively simple, easy to access, and offer flexible ways to play and stop playing (Kultima, 2009). Platforms and distribution models can also relate to casualness, such as mobile and free-to-play games with easy, non-committal access and focus on smaller-scale games with shorter play sessions. A casual game can then be not only an easy way to be introduced to gaming, but something to turn to when there is a need for more flexible and less intensive gaming.

Casual games as the place where 'lapsed gamers' turn to has been recognized early in the casual games discussion (Waugh, 2006). So far, the discussion has been more on the sidelines (see Cote, 2020). This article has shed light on what levels the gaming hobby has changed and renegotiated and how casual fits into these negotiations. Our results show that lapsed players face the same kind of problems with games, playing and game culture as aging players (Brown & De Schutter 2016) and 'just watchers' (Orme, 2021). They all have found similar answers to cross the barriers they face: a turn to casual games and a casual style of playing. This turn is not limited to digital games either, as lighter versions were considered as replacements for more demanding analog games as well.

For those seeking to connect socially with other people, casual games seemed to work especially well. When the focus is not on the games, lighter or more casual

games can function as the catalyst to meet with people, have discussions while playing, and share quality time with loved ones. However, casual games cater to different needs than the earlier games had, and our respondents were not always happy with the situation, and old games or playing habits could be missed. More time-consuming games could offer more immersive experiences, deeper narratives, or competitive dedication that smaller moments with casual games could not. Some of our respondents had seemingly found their own approach to the dilemma. They focused on choosing only games they knew they were going to enjoy, made sure they had time to immerse themselves for longer and made changes to where the games would be played, though this could mean they would play less than they had done earlier.

In the strategies our respondents used, casual often mixed with hardcore, and playstyles were fluid. As Leorke (2021) noted, mobile games such as *Pokémon Go* can be played in an extreme fashion and those games that are considered to be more in the 'core' have started to reach varied audiences by providing easier modes. While some ease their playing by reaching help outside the game with walkthroughs or friends, some digital games have built-in modes such as autoplay and skippable action scenes or co-operative mode where the other player character mostly assists the primary player. While accessibility options have started to appear on the menus of games, progression is slow, and fluidity of play should be the starting point of a design instead of an add-on. Furthermore, our results show that negotiations and changes happen on multiple levels, and while casual solutions are a part of these negotiations for many, the changes and strategies are more complex than simply transferring to casual games or playstyles.

While casual games might not be the cure-all remedy for all lapsed players, they are not fully utilized either. For instance, there are numerous mobile and indie games covering interesting stories but that do not require the commitment of larger AAA titles. Smaller games are published at an increased rate and thousands of new games appear on different platforms, and looking for new games periodically already takes resources and energy that might not fit in the changed life situations. While new AAA games are discussed widely in the game media, casual and mobile games do not get the same treatment. Game magazines write about mobile games with conflicted attitudes and the games are often talked about reluctantly and in a condescending manner (Rannanpiha, Tyni & Sotamaa, 2021), while mobile free-to-play games rarely make their way to reviews at all (Alha et al., 2016). Casual games have been met with negative attitudes from gamers as well (e.g., Alha et al., 2018), while people actively playing casual games can themselves dismiss them as silly, lesser, or not real games, as seen both in our data and previous research (Cote, 2020).

There is a need for a cultural change in how different types of games are valued, discussed and examined. Casual games can be seen as a less important part of game cultures and gaming identities (Consalvo & Paul, 2019). Challenge, labor, and skill

have long been ideological values of gaming (Leorke, 2021; Paul, 2018,), while inclusion of elements that make games easier, more automated, and less tense and risky—also elements that may make games easier to play casually—have been called to be dissatisfactory, or even to remove the purpose of games (Conway, 2017). One reason for this is the hegemony of play, or the power structures in the digital games industry that valorize white male players, male developers and 'hardcore' way of gaming above all else (Fron et al., 2007). Casual as a term is not unproblematic itself. It can be a value-loaded term as it has been used to divide players and games into categories where the core or the hardcore is valued and centralized while the casual is marginalized, ridiculed, and feminized (Chess & Paul, 2019). Casual play challenges these views and offers alternative ways to both gaming and how we understand gaming.

It is noteworthy that changing life to fit gaming back into its previous form was not something that was consciously attempted or expected to happen. Seeing changing gaming practices as 'a problem' needing to be 'fixed' oversimplifies the phenomenon. The behavioral strategies used to negotiate the barriers all included changes in games, playstyle, time management, or the context of play; often several of these at once. Even when respondents managed to keep the games and playstyles as intense as before, the time or context for these moments had been changed, restricting them to holidays or other rare occasions. Similarly, each respondent could use several different strategies, sometimes simultaneously, to fit games in their different forms into their changing life situations. The respondents were not always happy about losing aspects from their previous gaming practices, and hours-long sessions in immersive narrative-heavy games or intense larp or role-playing game campaigns that were no longer possible were longed for. On the other hand, trying out casual games or styles of play could result in finding new joy and aspects from gaming instead of just functioning as replacements.

Many of our survey respondents and interviewees discussed their changed playing habits in relation to having and raising children. The family type was not asked in the questions nor elaborated on in any of the answers, so it is not clear if the respondents were single or co-parents. Many just expressed the lack of time because they had children or had "started a family". This was similar to Bergstrom (2018), where "having a baby" or "family matters" had kept the respondent busy. Bergstrom posited that these kinds of answers were not evident in previous studies (Bergstrom, 2019b; Debauvais et al., 2011) because those concentrated more on the games that were often played by men and because women having to carry a 'double duty' of their work and domestic responsibilities leave little time for leisure. This kind of double duty was clear in some of our answers, but family as a reason was reported by respondents of all genders included. Support the player gets from outside or inside the family, no matter the gender, plays an important role in continuing the hobby. The responses revealed that babysitters, equal sharing of the domestic responsibilities and childcare between spouses, as well as a supportive attitude toward the hobbies of the spouse, are important for the continuation of the hobby. While this

matter was outside of our scope for this article, this would be an important avenue of future research.

The often-stereotypical division of play and players to casual and hardcore is not a dichotomy, but a vacillating state, a process. Previous play experiences, public image of what it means to be a gamer or player, and player identity can affect that process. Playing as a practice constantly changes in everyday life. It is negotiated, paused, morphed, and started again. Neither casual nor hardcore concepts can easily be stamped on any one player; games, playstyles, time management and context can all have features of both lightness and intensity that ravel together in complex, individual ways to play that differ, evolve, and combine in various periods of lives. It is important that future game studies reflect the multifaceted nature of playing and the reality of this complex phenomenon. In this article, we focused on the behavioral strategies connected to keeping gaming in the respondents lives in one way or another. Indeed, most lapsed players rarely quit playing altogether but manage to transform the hobby into a form that, at least partly, fits the demands or needs of their new lives. In the future, it will also be important to study cognitive strategies that investigate reforming gaming identities or the changing role of games in general for the aging gaming generations. Similarly, future research can consider other ways to partake in game culture in addition to gaming.

Acknowledgements

This research was supported by the Academy of Finland project Centre of Excellence in Game Culture Studies (CoE-GameCult, [353265]).

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eludamos
Journal for Computer Game Culture
Vol. 14, No. 1 (2023)

https://www.eludamos.org

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An Interview Study

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Eludamos: Journal for Computer Game Culture
Volume 14, issue 1, pp. 147–173

Young Video Game Players' Self-Identified Toxic Gaming Behaviour

An Interview Study

MARIA RUOTSALAINEN AND MIKKO MERILÄINEN

Abstract

In this study we analyse negative behaviour in the context of digital gaming through interviews of players (N=12) aged 16–27 who self-reported as having behaved in a manner they acknowledged as toxic. Through thematic analysis of the interviews, we highlight three central themes: games as affective spaces; affordances and norms facilitating negative behaviours; and players' navigation of negative behaviours. Our study demonstrates the situational and affective nature of negative behaviour and offers solutions for reducing it in gaming.

Keywords

Video gaming; toxic behaviour; affect; affordance; young people

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"I get annoyed the same whether in real life or gaming, but in real life I hide it much better … I kind of think that it doesn't matter if I'm angry in a game."

This quote from an 18-year-old interviewee captures something essential about the digital gaming experience. Games are a special environment, simultaneously very much a mundane activity yet also often considered to be separate from 'real life' (e.g., Stenros, 2014). While the mental and social freedom this escapist quality provides is precisely what many people find enjoyable (e.g., Meriläinen & Ruotsalainen, 2023), it also opens the door to hostility that can render this kind of enjoyment taxing or impossible for others (e.g., Passmore & Mandryk, 2020). The quote above reflects a common view: in a game, being angry does not matter—or at least it matters less.

Eludamos Vol. 14, No. 1 (2023), pp. 147–173
https://doi.org/10.7557/23.7270

Toxic behaviour is an acknowledged problem in digital gaming cultures. The term is used to refer to a broad range of conduct that is seen as harmful, hostile or unwanted, ranging in intensity from minor transgressions such as losing on purpose to severe harassment and threats outside the gaming environment. In addition to the psychological distress caused (e.g., Fox & Tang, 2017), toxic behaviour can drive people away from gaming (Kordyaka et al., 2020; Meriläinen & Ruotsalainen, 2022), whether through intentional harassment, fear of it, or an overall unwillingness to play in a gaming environment perceived as hostile (Meriläinen & Ruotsalainen, 2022; Passmore & Mandryk, 2020), and groups that are in a vulnerable position in game cultures are particularly susceptible to this (Fox & Tang, 2017; Meriläinen & Ruotsalainen, 2022; Passmore & Mandryk, 2020; Ruotsalainen & Friman, 2018). Although gaming culture toxicity is also discussed in other contexts such as game industry workplace conduct (Bergstrom, 2021), in this article we focus on toxicity that occurs during and around instances of game play.

We approach our subject through semi-structured interviews of adolescent and emerging adult respondents, who self-reported as having behaved in a manner they acknowledged as toxic. Grounding our analysis in young people's experiences and views, we draw attention to the many personal, situational, and material variables as well as game cultural and societal norms that contribute to instances of toxic behaviour. We forefront the situated and situational nature of toxicity and utilize the concept of affect to examine how toxicity is often, albeit not always, born out of intense interplay between subjects and material artifacts and how games themselves appear to become affectively loaded.

Our qualitative, solution-oriented study complements previous victim-focused research on toxic behaviour (e.g., Fox & Tang, 2017; Gray, 2018; Ortiz, 2019; Passmore & Mandryk, 2020) and quantitative explorations of toxic behaviour (e.g., Kordyaka et al., 2020), as we examine the experiences of those behaving in a negative manner. Focusing especially on the role of affect, we discuss the dynamics bringing about negative behaviours and how the victim–perpetrator dichotomy is not mutually exclusive, while simultaneously remaining sensitive to the power dynamics and structural inequalities involved.

Background

In previous research literature, toxic gaming behaviour has been given many definitions, and the problematic ambiguity of the term has been recognized (Kowert, 2020; Kwak et al., 2015; Türkay et al., 2020). Gaming behaviours identified in previous literature as toxic typically include verbal hostility such as flaming (e.g., Karhulahti, 2022; Kordyaka et al., 2020) and transgressive play such as cheating and trolling (Boudreau, 2019; Kordyaka et al., 2020). There is no exact consensus on boundaries, however. Karhulahti (2022) discusses "competitive toxicity" especially in the context of esports and makes a function-based distinction between toxicity that

manifests as verbal hostility, and forms of transgressive play (trolling, griefing, cyberbullying) (p. 25). He also excludes so-called strategic 'trash talk'. Neto, Yokoyama, and Becker (2017) note that griefing is "very similar" to toxic behaviour yet differs from it in intention (p. 27). Kwak, Blackburn, and Han (2015) discuss a range of negative behaviours, including cyberbullying, griefing, mischief, and cheating as toxic behaviour, while Rimington (2018) has explored flaming, trolling, and raging as three distinct, if overlapping, types of behaviour with different causes. The trolling sometimes mentioned as a form of toxic behaviour is in itself an umbrella term of different, and differently motivated, behaviours (Cook et al., 2018).

Research has suggested several factors that contribute to toxic behaviour. Toxic disinhibition (the lack of restraint in expressing oneself negatively through words and actions), previous toxic behaviour victimization, and individual attitudes and subjective norms all appear to play important parts in the whole (Kordyaka et al., 2020). Aggressive behaviour in online games may be seen as normative and more acceptable than in face-to-face situations (Hilvert-Bruce & Neill, 2020), and players' repeated experiences with a particular game may socialize them into accepting and conforming to norms of toxic behaviour (Beres et al., 2021; Ross & Weaver, 2012; see also Karhulahti, 2022). Much of the research on toxicity focuses on competitive games such as League of Legends (Riot Games, 2009) (e.g., Karhulahti, 2022; Kwak et al., 2015), and the aggressive affect and behaviour elicited by competition in games (Adachi & Willoughby, 2011; Dowsett & Jackson, 2019) is likely a contributing factor. Karhulahti (2022) goes so far as to say that "the fire of toxicity burns in each and every competitive player" (p. 24).

While most online game players likely come into some kind of contact with toxic behaviour, the experience of it may vary considerably. Instances of online hostility can be explicit or implicit expressions of systemic discrimination, such as sexism (Cote, 2017; Fox & Tang, 2017; Salter & Blodgett, 2017) or racism (Gray, 2018; Ortiz, 2019) or be perceived as such, prompting additional emotional labour, and creating additional barriers of participation for certain groups of people (e.g., women, gender and sexual minorities, people of colour) (Passmore & Mandryk, 2020). Discrimination may manifest as both tone and quantity: for example, in a study by Kuznekoff and Rose (2013), in an online gaming setting a female voice received three times as many negative comments as a male voice or no voice.

As the multiple ways the term toxicity has been used in research demonstrate, the term is ambiguous. Our own use of the term in this study stems from its ubiquitous use in gaming cultures, and its practical usefulness. While we considered alternatives like "inappropriate", "hostile", or "aggressive", these all had their own issues: what is appropriate is both a moral judgment and contextual, and behaviour perceived as toxic is not always aggressive or hostile—at least from the perpetrator's point of view (e.g., Kordyaka et al., 2020). When recruiting respondents, we also used the word "salty", another word for a range of similar gaming conduct, alongside "toxic". Both words were well understood and appeared to be common knowledge

to our participants, although some respondents pointed out that they did not consider the terms to be synonymous. For those participating our study, we defined toxicity as behaviour that occurs in games or is related to games (e.g., in game communities or social media) that the respondent considered inappropriate, impolite or mean, or that someone else has considered or could consider as such. Despite discussing toxicity in the interviews, in this article we have elected to instead mainly use the formulation *negative behaviours* to reference the wide range of behaviours addressed.

Theoretical framework

In this study we examine how players reflect on their own negative behaviour and agency in gaming situations. We suggest that their behaviour is both configured and to be understood in a complex, affective matrix of materiality, (game) culture and its norms, interactions with other players, and personal preferences.

Affect

Central to the examination is the concept of affect. The study of affect in digital games has gained attention in recent years, alongside the interest towards the materiality of video games and gaming (Apperley & Jayemane, 2012; Cremin, 2016; Giddings, 2009). Theories on affect have been applied in the study of both player experiences and player communities as well as when seeking to understand the form of digital games (see Cremin, 2015). Affect is an evasive concept, the definitions of which vary across disciplines but sometimes also inside a given discipline. Affect is sometimes used almost interchangeably with emotion (Taira, 2007), but has also been understood as fully unstructured and pre-personal force that has the potentiality to move people whereas emotions can be understood as more tangible and recognizable expressions of feelings (e.g., Deleuze & Guattari 1987; Massumi, 2005). According to Teemu Taira (2007), a third way of understanding of affect has been suggested by Lawrence Grossberg (1992), who talks about "affective investment" that brings forth the intensity of affective relations to those matters we give value to. What most of the accounts of affect share is the recognition that affects rarely, if ever, belong to us in a sense that they would be fully subjective.

In this article, we understand affect as a force that has the potential to move subjects and alter both their emotional states and actions (Deleuze & Guattari, 1987; Shouse, 2005) as well as having different levels of intensity depending on the subject's affective investment (Grossberg, 1992). In this sense, it is potential which is actualized in different ways. Affect, as a very material and bodily expression, occupies a place at the fringe of the cultural and linguistic matrix, while not being fully separable from it. Affect exists beyond subject, both as intersubjective, but also in socio-material entanglements. Thus, one's agency, or capacity to act, is affected by the affective tensions and intensities that are born from the interplay of these socio-material en-

tanglements but is not fully determined by them. Rather, players navigate these entanglements reflectively (see Zhu, 2023). As videogames are designed environments, sometimes these socio-material entanglements are consciously produced.

Games and affect

Because of both game design and many players' strong attachment to game cultures, games are often highly affective spaces and can retain their affective tensions even when players in them change. As Shouse (2005) notes: "Because affect is unformed and unstructured (unlike feelings and emotions) it can be transmitted between bodies." Affect—and facilitating affective encounters—are an intimate part of both game design as well as the game-play experience. James Ash (2010) discusses how positive affective encounters are designed as part of videogames and how creating them effectively is key for video games to be successful. What Ash means by positive affective encounters is that they enable the player to do more in the game in ways that create sensations of empowerment. Negative affective encounters on the other hand are the kind that diminish a player's capacity to act in a game in ways that often make them feel frustrated. Studying young people's experiences of "gamer rage", Kahila et al. (2022) found that, for example, repeated or unexpected failures, comparison to others, interruptions, and technical problems could serve as acute reasons for outbursts of rage, while game characteristics, the social and physical gaming environment, and daily life troubles contributed as background factors. This highlights how behaviour in games is not reducible to game design but is constructed by the different factors that make up an instance of gaming. This is particularly true with multiplayer games, where players have affective encounters not only with the game, but also with other players.

Nevertheless, when examining games and affect it is important to examine the game mechanics—what the player does and what they can do, and the effects this produces—rather than only the narrative and representations in the game (Ash, 2010). Indeed, paying attention to what is beyond representation and what it evokes is central to analysing affect (Grossberg, 1992). One way to examine the way games evoke affect beyond representation is through the concept of affordances.

Affordances

The term affordances refers to possibilities or opportunities of action that are made possible by an object or an interface (e.g., Greer, 2013; Norman, 1988). In video games, affordances are often related to game mechanics, thus performing particular actions within games enables particular outcomes (for instance, defeating the last member of the opposing team wins your team the round). However, affordances in video games can also be social or communicative in nature (Hoffman, 2019). This can be for example an embedded voice chat that allows players to talk to each other or a pinging system, which allows players to communicate locations in game by pressing a location on the map or the game world. This makes it possible to relay information to other players without any textual or vocal communication.

Affordances can be affectively loaded in different ways: for example, a human voice carries a different affect than using a pinging system in game. Alternatively, a game might lack a chat function altogether, but provide other ways for players to express themselves to other players: in their study about Hearthstone (Blizzard Entertainment, 2014), Arjoranta and Siitonen (2018) show how players, while lacking a chat channel, find a way to communicate by using emotes and their communicative affordances. This again highlights how behaviour is influenced by designed affordances, but not reducible to it.

Data and method

Our study draws from semi-structured interviews (Cote & Raz, 2015) with active digital game players. We interviewed a total of 12 people (six women, five men, one non-binary person, ages 16–27). The interviews were conducted in Finnish over the course of two days at the Assembly Winter 2023 gaming festival in Helsinki, Finland in February 2023. We opportunistically (see Riemer, 1977) chose the event as it coincided with our planned data collection schedule and allowed us to reach our target demographic: young people invested in digital gaming.

We approached festivalgoers who we estimated to be in the study's intended age range of 15–25, explained the topic of the study and asked about their willingness to participate. Interviews were conducted in a separate quiet room in the convention centre that the festival took place in. The interviews were conducted as three individual interviews and three group interviews of three interviewees each (Table 1). Although our initial upper age limit for participation was 25, we elected to include two respondents aged 27 as they wanted to participate with their friends and were in a similar life stage. We approached both masculine-presenting and feminine-presenting festivalgoers to have a balanced sample in terms of gender.

In the interviews, we explored negative gaming behaviour with the interviewees and asked what constitutes unwanted behaviour in the context of gaming and how the interviewees themselves had come to behave in these ways. Interviewees participated in the study anonymously. Before the interviews, we explained to the interviewees the aims of the study, their rights as research participants, and the study's privacy policy, and recorded explicit consent and confirmation that they had been made sufficiently aware of these and were willing to participate. In the case of the two interviewees who were under 18, we instructed them to inform their parents of their participation in the study. All participants were given contact details for any questions or requests regarding the study. Following university data protection guidelines, we conducted a risk assessment for data processing and security prior to the start of data collection, and we transcribed the interviews personally.

While an ethical review of the study was not required, we were careful to take steps to minimize potential distress stemming from the study situation, as we were in

some cases working with underaged respondents. We made clear to the respondents our own position as both researchers and experienced game players familiar with hostile online behaviour as both targets and producers. We stressed that our intent was not to judge any behaviour and that respondents did not have to sanitize their language when discussing their experiences. As there was an obvious power disparity in some situations, with two adult researchers and an underaged interviewee, we sought to make the situation as socially comfortable as possible, casually discussing for example their festival experience before the interview and establishing rapport through discussion of our own gaming (see Cote & Raz, 2015, p. 107–108).

Our semi-structured interviews were built around a core of six individual questions (see Appendix 1) which were then complemented with follow-up questions during the interview. Individual interviews ran from 17 minutes to 1 hour and 5 minutes, the group interviews being longer than individual ones. In the longer interviews, after the 30-minute mark, we periodically reminded the interviewees of the time that had passed and asked if they still wished to continue.

Thematic analysis

After transcription, we conducted a thematic analysis (Braun & Clarke, 2021) on the data. Both during and after the transcription process, we went over the interviews several times both individually and together, coding features we considered interesting and relevant (e.g., “Self-control”, “No toxicity towards children”, “Zero tolerance for slurs”), resulting in 239 individual codes. These were then further examined, overlapping codes merged, and redundant codes removed for a final total of 195 codes that we both agreed on.

Next, we started grouping these codes, experimenting with different thematic groupings. In an iterative process, groups were constructed, de- and reconstructed into subthemes which were then further grouped into three main themes: games as affective spaces; affordances and norms facilitating negative behaviours; and players’ navigation of negative behaviours.

Results

In this section, we present our analysis sorted by main themes. We have provided illustrative quotes, translated from Finnish, from the interviews. While the original Finnish interviews were transcribed verbatim, during the translation quotes have been edited for easier readability by for example removing repetition, filler words, and other similar elements common in informal spoken language. Interviewees have been pseudonymized and are shown in Table 1.

Interview	Participant(s) (gender, age)
1	Erik (man, 20)
2	Waltteri (man, 16)
3	Ariel (non-binary, 18)
4	Alexandra (woman, 16); Greta (woman, 27); Airi (woman, 21)
5	Konsta (man, 16); Petja (man, 22); Jonathan (man, 23)
6	Ira (woman, 24); Anne (woman, 27); Kirsti (woman, 25)

Table 1. Details of the six conducted interviews.

Games as affective spaces

Games are spaces that are loaded with affect, both by intentional game design and by accidental outcomes (Cremin, 2015). Our interviewees had different kinds of relationships with different games, with their relationship with some games marked with a sense of relaxation, whereas the relationship with other, typically competitive, games was often characterized by a sense of competitiveness, a drive for improvement, and by the multiplayer nature of these games. Greta demonstrates this when asked to name three games she likes to play:

> Yeah, *Valorant* [Riot Games, 2020] at the moment. *Dragon Age* [franchise, Bioware, 2009–2014], but it's like single-player, what would a third … help, like *Apex* [*Legends*] [Respawn Entertainment 2019]. Well, a solo game is like your own little refuge where you want to relax sometimes, and then the others are ones where you either play with a friend or want to challenge yourself, like in a competitive manner. That's why I like them.

Affective encounters do not only happen between the player and the game, but also between the players within the game. These kinds of encounters were particularly prominent in our data, as our interviewees talked almost exclusively about multiplayer games due to the research topic. These affective encounters amounted to tensions which manifested as emotions or were channelled as actions or often both. They commonly led to verbal outbursts, directed towards either oneself, the game, or other players. Regardless of interviewee gender, especially men's behaviour was often brought up in these contexts. Whereas men more commonly viewed their and other men's negative behaviour as stemming from immaturity, something to be "grown out of", women and non-binary players on the other hand saw men's sexism and misogyny as the biggest issue. They also brought up that it was not only men's actions they found problematic, but also their lack of action, for example not intervening when they saw someone being bullied or harassed.

> **Ariel**: On my own team—it was a rare occasion that I was playing *Valorant* solo—there was someone who was really nasty towards me. In voice chat people assume I am a woman, and this person yelled things like "go back

> you fat bitch" to me, so I gave him back in kind, "go fucking die you fucking man." Then I started feeling bad because I started thinking what if he actually lives somewhere where there is a war, and he has to really go to war. And then I say things like that to him in the game and now he feels bad. But then again, he started it, so.

Ariel's description shows how certain words and expressions have affective stickiness (Ahmed, 2004) to them: they tend to hurt more than other words because of the associations and feelings they evoke. This is even more evident in the following comment from Anne:

> So, people who say "kill yourself" to someone else in a video game, for real, get some help. I'll call your mother, really, if it's like that. [Saying] it is probably the lowest on the list … it's probably the worst thing you can say. Actually, even if you are enraged, you can't say such things. If you say such things out loud you have to be like "I'm sorry, I didn't mean to, I'm sorry for that."

At times even when these outbursts were about other players, the interviewees would verbally express their frustration not to the players concerned directly, but for instance to a friend with whom they were in a voice chat with while playing or just saying it out loud, even if they were by themselves. Importantly, it seemed that sometimes channelling the affect somewhere was enough, rather than having to do it directly to the player who the interviewee found frustrating. Verbal channelling was not the only option but releasing the affect could also take physical forms. For example, Erik mentioned that he had smashed his mouse due to (in his words) overreacting to in-game events (see also Kahila et al., 2022; Moreau et al., 2023).

> **Ariel**: Sometimes I bad mouth the opponent. But usually, I do not say anything directly to the opponent, but I talk in voice with my friends, like "fuck that is a shitty person." I usually don't say anything directly to the opponent, because it is not nice when people act like that towards me.

> **Waltteri**: My parents have commented a little that I should swear less, but I've never followed their advice. Well, when they're home, I swear a bit less, but not that much, but if they're not home then it's like … your mouth runs free.

As the quotes below demonstrate, emotional outbursts could be a cause for regret, whether for crossing personal lines (Kirsti) or for spilling out of the game (Petja). Petja's story is also a reminder of how, with the player serving as a conduit and simultaneously occupying a space in both the digital and the physical world, games can reach beyond their immediate digital environment (see also Kahila et al., 2022). A common factor in both examples is that the interviewee acts before conscious thought, and immediately regrets it.

> **Kirsti**: Well, I can say that when I shouted at that one kid, I was so goddamn ashamed. I felt like this isn't the sort of person I am.
>
> **Petja**: I'd played a game when I was little, and something had happened and I'd gotten angry. Right then my mom had knocked on the door and I had said something pretty nasty [to her]. You do remember, it's like you're saying "shut up" like by accident because you're raging. … You do remember when your mom gets angry at you.

Both Kirsi's and Petja's accounts aptly demonstrate how feeling bad for getting caught on the affect and the resulting behaviour makes the situation memorable and can possibly spark reflection and change.

What was notable about these affective encounters was that the affects tended to linger in the bodies of the players after the temporal space (match in the game) giving birth to them had stopped existing. Sometimes players would carry them with them to the next match or even all day, but they could also find alternative outlets. For instance, Greta told us how, when she got really agitated while gaming, she would take a break to go for a smoke or talk to her mother, whereas Kirsti mentioned "going to cry into a pillow".

Players also discussed how bad experiences in a game would affect their behaviour in the next game and make them more reactive towards other players. The interplay of intensity and the social nature of competitive play leads to a highly affective experience, resulting in a kind of an affective loop of revenge (see also Liu & Agur, 2023) that constantly intensifies as well as spreads the affect around it.

> **Kirsti**: Yeah, it's usually a basic situation for me that you're just having like a really miserable day, and you have these teammates who are a little more miserable and angry, it's really easy for it to boil over for me as well. Like you just can't bear it, so you act kind of the same back at them.

Negative behaviour was also connected to situational intensities, such as how competitive the situation was and how much it personally meant to a player. This highlights both the influence of affective investment (Grossberg, 1992) and the situated and situational nature of instances of gaming (Apperley, 2010; Meriläinen & Ruotsalainen, 2023), as elements both internal and external to players fed into negative social interactions.

Affordances and norms facilitating negative behaviours

In this theme we explore the affordances and norms that online gaming spaces provide for negative behaviour. Features brought up in the interviews could be divided into two categories: affordances stemming from game and platform design, and online gaming conduct norms that enable, encourage, and discourage different

types of behaviours and social interactions. These two dimensions were often interwoven.

Affordances

Affordances for negative behaviour were provided by game features such as anonymity, chat, and elements such as competitive gaming modes. For example, whether through written chat or voice chat, anonymous in-game communication both made it technically possible to direct abuse at other players and made it mentally and socially easier (see Suler, 2004). Here, we return to the quote at the start of this article:

> **Ariel**: I kind of think that it doesn't matter if I'm angry in-game and get mad easier than in real life, because it's like … now that I think of it, for me there's the thing that if I yell at someone in real life, it's bad if you see that you make that person feel bad. When in a game I tell someone that they're fucking shit at this game, I don't see that they feel bad. I don't see the reaction so that might be like one [contributing thing].

The design of some team-based competitive games led to so-called 'clutch' situations, in which the outcome of a round or the entire game rested on an individual player's performance. These situations made a single player the focus of the game, and were often both emotionally and affectively charged, and were mentioned by interviewees as common instances of negative behaviour.

> **Airi**: For example, you're like in a clutch situation and then some sexist men start shouting into the mic and try to keep you from concentrating. So you easily say something pretty nasty back, yeah.

> **Erik**: But for example, I had this situation, I lost a friend because of it, because we played CS:GO [*Counter-Strike: Global Offensive* (Valve & Hidden Path Entertainment, 2012)] together, and then … I didn't succeed in a clutch situation, so they got mad at me and started yelling at me, and I put up with it for two rounds and the situation repeated. So I told them what I thought of it, and they left.

Comments on game design often placed the responsibility for curbing negative behaviours on game developers, and illuminated how social interactions are interwoven with design elements. While they were seen as positive in general, our interviewees held conflicting views on the effectiveness of technological solutions (see also Kou & Gui, 2021).

> **Airi**: Gaming companies, before they release any game to the public, should make sure that if there's some sort of a chat option, voice chat or whatever chat, that it's monitored. Like for example when there have been death and rape threats before, *Valorant* got the system where they started recording voice chats, the people saying shit like that in the voice

> chat got no feedback reports or anything. … If you give that kind of platform to players and people, you should also monitor it because not all people are going to change and change their habits and be friendly or non-toxic. So, I think that it's also the game companies' responsibility to make it a safe place for gaming.
>
> **Erik**: Actually I have to say about *Valorant*, I like it because you can't really say anything wrong in the chat because you're immediately banned, but e.g. in CS [*Counter-Strike: Global Offensive* (Valve & Hidden Path Entertainment, 2012)] or something like R6 [*Rainbow Six: Siege* (Ubisoft Montreal, 2015)], they don't have this option.

Communicative affordances, such as voice chat, could also facilitate discriminatory behaviour, as sometimes a feminine voice would be enough to elicit verbal abuse (see Kuznekoff & Rose, 2013). The women players we interviewed recognized this and would also tactically employ this to avoid ('dodge') playing with potentially sexist players.

> **Anne**: I usually start like, "Hello!" [in a high-pitched voice], and I'm like if there's no answer, then, "Hello!" [low-pitched voice], and someone responds something like "Hi." I'm like, now I can pick my character, I first want to make sure before I fucking have to play for half an hour with them, like how do they respond [to me].

In a similar manner, affordances related to game modes could also make it more difficult to escape harassment situations. Regardless of the conditions, leaving the game would usually lead to losing one's rank or another kind of sanction.

> **Ariel**: This one that has stuck in my mind, when there was this person who was really toxic towards me, he was really, really mean to me, he threatened to find my address and come and rape me, and it really started to bother me and I wanted to leave that game halfway through, but then I didn't dare when it was ranked [a competitive game mode] and I didn't want to lose my rank for this.

Norms and the social contract between players

While games may also have explicit conduct rules, social game play relies on a mostly implicit social contract that governs in-game conduct; for example, in a competitive game, players on the same team are assumed and expected to be working together for a shared win. Many instances of negative behaviour discussed by our interviewees, whether they were perpetrators or victims, were related to the breach of implicit social contracts or norms between players. Different assumptions about the gaming situation, such as its 'seriousness' or appropriate conduct, were a major source of friction, frustration, and consequently negative behaviour (see also Karhulahti, 2022; Meriläinen & Ruotsalainen, 2022; 2023).

> **Ira**: [Playing *Valorant* (Riot Games, 2020)] I write in the chat like, "Hey, can you do your job, I'm Killjoy [a character in the game], it's not my job going to the site, I can't get there. You have the abilities." And [they say] "it's just unrated" [a more casual gaming mode]. I'm like, I don't care, that even if this game is unrated, you've chosen duellists, play like goddamn duellists play, and it boiled over so badly, really for the first time I disconnected and just left the game … like whatever, I'm leaving, if I get a penalty for this then so be it but I just can't.

In this situation, Ira's comment suggests she considers her reaction somewhat justified, even though she acknowledges that her reaction is excessive and is conscious that she may be penalized for her action. Despite hostile behaviour often being normative in many online gaming spaces (Hilvert-Bruce & Neill, 2020), our interviewees had strong views on what was appropriate behaviour and what was not. Responding to a question on whether they personally drew any lines on the expressions they use, Greta and Airi say the following:

> **Greta**: Like, no slurs.
>
> **Airi**: No KYS [online acronym for "kill yourself"]. No stuff like "autistic" or …
>
> **Greta**: Yeah, nothing. Nothing that concerns the person's background or gender. Well ok, gender is a little stupid.
>
> **Airi**: I've called people "bitch". Not women or assumed women though.
>
> **Greta**: Yeah, yeah, yeah, but something like no[thing related to] nationality, religion, race or anything like that. They're an absolute no. I'd never even dream of saying something like that.

Despite drawing these lines, when discussing their reactions to negative behaviour they received, they also told us the following:

> **Greta**: Well, one thing that I say very often, but it's also very defensive. I often tell someone that I played video games when you were still in diapers. I like to use that a lot on some boys, but like …
>
> **Airi**: Sometimes, when it is really extreme, we say "choke on a sausage".

"Choke on a sausage"—referring to performing oral sex on a penis—said as an insult to an assumed heterosexual man has a homophobic message: it frames homosexuality as something undesirable. As these interviewees self-identified as "LGBTQ", it is important to ask what the function of the comment is in this context. While on the surface homophobic, the main function here does not appear to be discrimination,

but provocation. However, regardless of intent, it is simultaneously a public homophobic comment made without any knowledge (or concern) of the recipients or their sexuality. The example underlines the importance of context and considering different framings of negative behaviour: the comment can be viewed as homophobic, as a weaponization of heterosexual men's homophobia, or as an example of discriminating expressions used without a discriminating intent; all are viable readings.

Players' navigation of negative behaviours

Especially when playing competitive games, our interviewees had dealt with negative behaviours in diverse ways both as perpetrators and as victims, before, during, and after instances of negative behaviour. Depending on the instance, interviewees could for example escalate or de-escalate situations or address them afterwards with other players involved.

While previous research (Cote, 2017; Fox & Tang, 2017; Passmore & Mandryk, 2020) has addressed players' coping as victims of negative behaviours, our interviewees also discussed coping as perpetrators, including addressing feelings of shame over their own behaviour. In the quote below, Airi discusses getting into a conflict with another woman while playing:

> **Airi**: This reminds me of an example, when there was kind of a bad atmosphere when we were playing and there was a random chick. And then the atmosphere got a little toxic and salty from the get-go and there was arguing and stuff like that. After the game we added each other [as friends on the gaming platform], first talked over messages and then we went into the same lobby and settled it because for both …like there were us three women there and we all felt bad that in a game like that where it's already difficult to be a woman, we were toxic and nasty towards each other, so we settled it and we've played together afterwards.

In what is likely a rare occurrence, the players elect to discuss their negative in-game behaviour after the game. Finding solidarity in recognizing the shared difficulties faced by gaming women (e.g. Cote, 2017; Fox & Tang, 2017; Ruotsalainen & Friman, 2018), the parties involved settle their argument and Airi mentions them gaming together afterwards. However, this requires one or both of the players involved to reach out and address the situation, and the game design also needs to technically allow this. Providing context, Ariel's comment shows how it can take a great amount of conscious effort to go against both the intense negative affect and the game cultural norms that encourage a hostile response.

> **Ariel**: It's like if someone's toxic at me in games, I fire back with the same energy, because I'm kind of thinking like, why should I be the "bigger person" in the situation if the other person is being annoying.

Although negative behaviour could be a near-automatic response (see Kordyaka et al., 2020) and a source of regret, it could also serve an empowering function for the women in our study. This was also problematized, as negative behaviour that interviewees perceived as justified was still seen as contributing to overall hostility.

> **Greta**: Sometimes it's like a reflex, like you say something like "shut the fuck up" or call someone an incel or something, like you're just so tired of all the "get in the kitchen blah blah" stuff but every now and then you somehow manage to slap them with a clever comeback and it feels like … well that shut them up, this feels nice.

> **Ira**: In normal life [as opposed to gaming] if I'm in a normal social situation like this, I don't dare to say fucking anything. I'm just there like "can I go already?" … Like in normal life I can't stand conflict. No, no I just can't do it.

> **Airi**: It's ok to defend yourself, but you also need to remember that there are limits to that too and even if someone is saying really nasty and disgusting things, it's not worth it going down to that level. And if you have and you've sometimes been toxic or you're still toxic, it's ok to admit it and then maybe like do a little self-reflection, why is it like this.

The distinction of private versus public was also discussed by interviewees. Private environments such as a friend group's Discord channel provided outlets for negative emotions and kept them from spilling out into the public space of the game. Several of our participants streamed their gaming, and paid extra attention to their behaviour, wanting to set a positive example. The increased self-awareness combined with a seemingly genuine intention to set a positive example helped our interviewees regulate their behaviour. By streaming, the interviewees also relinquished their anonymity, raising the threshold for negative behaviour.

> **Erik**: Now that I stream a lot and people have started watching me, I have to be a bit like … and I also want to be like calm. … privately I can let fly some words that I might not be allowed to say on stream, but nowadays I try to be much more calm and, like, non-toxic.

> **Anne**: Even if I sometimes feel like I can't be bothered, I kind of have this thing that because I'm streaming, I want to be a role model. That if someone like this [behaving in a toxic manner] enters the game, I'm like the hand of justice …

> **Kirsti**: No but it's good that we streamers are kind of against this toxicity. Like the more we do that, the more our viewers start to understand that hey, this is ok and secondly that you can say something, you can intervene. Maybe you can change it, so we are kind of changing this. Little by little, maybe not very quickly.

Ira: But like baby steps. That's better already.

Discussion

What sits under the umbrella of toxic behaviour is a complex interplay of different factors, as players navigate affectively charged online environments and emotionally intense gaming experiences. Next, based on our analysis we discuss the implications of our findings and end the article with suggestions for reducing negative behaviour in online gaming.

Our analysis frames negative behaviour as a phenomenon produced by individuals based on their past and present experiences and shaped by affect, societal and game cultural norms, intersectional variables such as age and gender, and the different affordances provided by the gaming situation. Many issues and contributing factors that have been identified in previous research were present in our interviewees' comments, such as online disinhibition (e.g., Kordyaka et al., 2020), norms of hostile behaviour (e.g., Hilvert-Bruce & Neill, 2020), the influence of competition (e.g., Adachi & Willoughby, 2011), and systemic discrimination (e.g., Ortiz, 2019). However, rather than making up a tidy model, a variety of factors come together to produce each individual instance and our analysis shows the multitude of ways players negotiate their own behaviour in this complicated matrix.

We especially want to highlight the roles of affect and intensity in relation to negative behaviour, particularly in competitive gaming, both of which continue to be undertheorized within the current literature. For our interviewees, negative behaviour was often related to the emotional intensity of gaming. In their comments, the digital gaming environment—an online lobby, a match, or a server—presents itself as a space charged with affect. This charge finds different outlets, manifesting as intense emotional reactions that players consciously and unconsciously direct in various ways, from breaking gaming equipment to unloading to friends on a private Discord server. When directed in a negative manner towards other players, we arrive at what is often called toxicity.

In light of the long and troubled history of aggression linked to gaming (e.g., Mathur & VanderWeele, 2019) as well as the documented hostility of especially competitive gaming cultures, we also wish to draw attention to the crucial distinctions between emotional reactions, aggressive conduct, and malicious behaviour. Intense positive and negative emotional reactions will often occur during competitive games, and for many players they are a key part of gaming's appeal (e.g., Meriläinen & Ruotsalainen, 2023). These reactions can sometimes manifest as aggressive cognitions and conduct (Kahila et al., 2022; Moreau et al., 2023) which, assuming that they are expressed in a manner that is not hurtful to others or oneself, are not particularly problematic and can sometimes be argued to be morally justified and even empowering, such as when pushing back against discrimination. Both emotional reactions

and aggressive conduct are distinct from intentionally malicious behaviour, although they might often appear together. It is thus important to differentiate between these different behaviours, their motives, and outcomes in academic literature, and avoid examining them as one homogenous phenomenon or through one concept, such as toxic behaviour, as it can hide important differences.

Our results both support and complicate some of the previous research on toxic gaming behaviour. Toxic behaviour has been framed in some previous research as an automatic and even subconscious reaction to stressful in-game events (Kordyaka et al., 2020). Although this appears to hold true for some toxic behaviour, our interviewees also brought up very intentional harassment and griefing that sometimes started already before the actual game, in a multiplayer pre-game lobby. This behaviour, obviously intended to insult and sabotage another player's game experience, clearly sits under the umbrella of toxic behaviour, at least as the term is used in everyday parlance, yet cannot be argued to be subconscious or automatic (see Liu & Agur, 2023; cf. Kordyaka et al., 2020).

For the understanding of the phenomenon, it is important to note that the distinction between a perpetrator and a victim, or a 'toxic' and a 'non-toxic' player is often not a dichotomy, nor is 'toxicity' an essential quality. Player behaviour is not a constant, and those players who consider themselves well-mannered may also get swept up by the intensity of the gaming situation and at times conform to gaming culture norms that encourage hostile and aggressive behaviour (Meriläinen & Ruotsalainen, 2023), use hostility as a form of self-defence or resistance (Gray, 2018), resort to hostility in defence of others, or behave in a different manner when playing with friends than when playing with strangers. Echoing findings on traditional bullying (Walters, 2020) and cyberbullying (Ballard & Welch, 2017), there is considerable overlap between perpetration and victimization (Kordyaka et al., 2020).

In a similar vein we encourage diverse and nuanced interpretations of perceived instances of structural discrimination in gaming from the perpetrator's point of view. Negative behaviour, most blatantly when it is expressed as explicit discrimination (e.g., Cote, 2017; Fox & Tang, 2017; Gray, 2018; Ortiz, 2019), can be symbolic violence, a way of wielding power, and of gatekeeping and boundary making (Gray et al., 2017). However, to seek solutions to systemic discrimination in gaming rather than simply illuminating it (see Sedgwick, 2003), we also need to understand the reasoning and intent, or lack of intent, behind discriminating acts.

Solutions to negative behaviours

Finally, our results suggest several concrete ways to address different negative behaviours that occur in online gaming. We have elected to focus on ways that are specific to gaming, rather than address broad societal issues such as systemic discrimination. As we have discussed above, there are distinctly different varieties of negative behaviour in games and accordingly they warrant different solutions. There are seven ways we consider especially important. Suggestions 1 and 2 focus on the

individual level of players behaving in a negative manner, 3 and 4 are primarily industry solutions, and the final three are broader, joint game cultural efforts encompassing different actors.

1. *Developing emotional skills*. Online gaming environments can be extremely affectively charged, and our interviewees almost unanimously brought up the need for self-regulation, self-reflection, and empathy. As some negative outbursts are near-automatic reactions to in-game frustrations (see also Kordyaka et al., 2020), or stem from existing causes such as having a bad day (e.g., Kahila et al., 2022), the skills to explore and regulate intense emotions brought on by gaming situations are important in preventing hostile actions. It is important to note here that for example feelings of frustration and disappointment are normal human reactions to in-game events, and not inherently problematic. The vitally important distinction is whether they are expressed as abuse towards other players or addressed in private, such as with friends on Discord or simply by shouting at the screen.

2. *Developing social and communication skills*. Closely related to emotional skills in this context, social and communication skills are needed for correctly reading social gaming situations and responding to them appropriately. The normative nature of hostile conduct in online gaming (Hilvert-Bruce & Neill, 2020) combined with the online disinhibition effect (Suler, 2004; see also Kordyaka et al., 2020; Liu & Agur, 2023) easily gives rise to negative readings of neutral situations or leads to minor mistakes quickly escalating into full-blown conflict in a vicious spiral.

3. *Matching players with similar expectations*. Players may come into games, especially competitive ones, with different expectations in terms of both competitiveness and acceptable conduct. For example, if players looking for a casual game and players looking for serious competition end up on the same team, the different expectations can result in frustration on both sides, and escalate into hostility (e.g., Kou & Gui, 2021; Meriläinen & Ruotsalainen, 2023) as both sides may perceive and accuse the other of breaching an imagined social contract. Similarly, what some players experience as extremely hostile speech may for the other party be routine, strategic trash talk, perceived as appropriate for the competitive situation (Karhulahti, 2022). Games already have mechanisms that sort players of roughly similar skill levels into the same games and different game modes that cater to different intensities of play. Developing these approaches and providing spaces for different gaming mentalities and conduct preferences could help reduce conflict.

4. *Robust software and policy solutions*. Software solutions such as reporting and chat monitoring play a part in the curbing of negative behaviour. However, this also requires that said tools work and importantly are perceived to work,

making perpetrators accountable (e.g., Passmore & Mandryk, 2020); for example, players may not bother reporting inappropriate behaviour if they assume their report will not result in action being taken. Reporting systems are also open to uses contrary to their intent, such as revenge reporting or instrumental, strategic use (see Kou & Gui, 2021). Despite these drawbacks, low threshold approaches to tackling unwanted behaviour as well as automated content moderation (e.g., chat filters) likely help reduce negative behaviours, or at least their visibility (e.g., Cote, 2017). As Passmore and Mandryk (2020) note, developers need to design and implement features grounded in equity and an understanding of privilege differences (see also Cote, 2017).

5. *Promoting positive behaviour*. Rather than accepting that gaming culture is irreparably hostile and that more strict surveillance and heavier sanctions are the main way of keeping it under control, there need to be positive examples and contesting of normative hostility. This should take place not only as concentrated drives and initiatives, but also on an individual level. For our interviewees, receiving positive and constructive feedback helped alleviate negative feelings and prevented situations from escalating, contributing to an overall more pleasant atmosphere. Despite the prevalence of negative behaviour and discrimination in gaming cultures, there has also been intense pushback against this behaviour (e.g., Boudreau, 2022; Maloney et al., 2019; Nakamura, 2012), reminding us of the potential for positive change.

6. *Cultivating game cultural understanding*. Negative behaviour in gaming happens at the intersection of many factors as discussed above: affect and personal feelings, game cultural norms, societal attitudes, age, gender, and game technologies. Making players aware of how they are situated in relation to all of these could make it easier for them to consider and, when necessary, regulate their behaviour. If, as previous research and our interviews suggest, a considerable part of negative behaviours can be attributed to lack of consideration and unquestioning adherence to norms of negative behaviour rather than malice, increasing this consideration and making player more aware of their role in sustaining negative behaviours could help reduce such behaviour. It is also extremely important to educate players in privileged positions on issues related to sexism and racism and other discriminatory behaviours, to avoid burdening groups experiencing discrimination with additional labour (see Cote, 2017; Passmore & Mandryk, 2020).

7. *Creating safer spaces for play*. Our analyses show how in particular women players use various techniques to try to make gaming spaces safer for them. In line with earlier research (Taylor & Hammond, 2018), this demonstrates the importance of creating safer spaces of play, in particular to groups that are in more vulnerable positions in game cultures. These spaces can be created by gaming communities themselves both on- and offline but can also

for example take the form of supervised spaces (e.g., gaming clubs or spaces) by public or private actors.

Strengths and limitations

A key strength of our study is its rich interview data, as our interviewees candidly described their experiences of gaming and conduct that they themselves viewed as unsavoury. Many interviewees were passionate about the topic, some even describing talking about it as therapeutic and as sparking self-reflection on their own behaviour. This said, in some of the early interviews we were perhaps rushing a little, as we tried to avoid taking too much of the interviewees' time spent at the gaming event. While we achieved good gender representation in our sample, all of our participants were White, which meant that we could not assess experienced racism as a facet of negative gaming behaviour.

As a small interview study, our results are not intended to provide a representative or broadly generalizable view of young people's negative gaming behaviour. Instead, they unpick the diverse dynamics of what is commonly called toxicity. A feature of study is that our interviewees did not appear to be particularly malicious: for them, negative behaviour was typically more about emotionally charged reactions rather than intentional being hurtful, and even when being hostile, they sought to for example avoid discriminating language. Interviews with players who enjoy and embrace negative behaviour online could therefore yield very different findings.

Conclusions

The findings of this study suggest that games as affective spaces and designed game affordances play key roles in both enabling and intensifying negative behaviour but can also offer ways to combat it. Our results demonstrate that while negative behaviour is sometimes quasi-automatic, players also reflect on their behaviour and change it. Importantly, our study shows that negative behaviour in gaming can have multiple functions, including resisting and responding to harassment and discrimination: thus, the division between victims and perpetrators is not clear-cut.

Acknowledgements

The study was funded by the City of Helsinki Youth Services project *Non-toxic – non-discriminatory gaming culture* and the Academy of Finland project *Center of Excellence in Game Culture Studies* (CoE-GameCult, grants 353265 and 353267). The authors

would like to thank Sonja Ahtiainen and Essi Taino for their comments, Assembly for allowing us to conduct our research at the event, and the two anonymous reviewers for their feedback.

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Appendix 1

Interview questions (translated from Finnish).

1. Background questions.

- Age?
- Gender?
- [Optional] Which of the following describe you (you can choose more than one):
    - I was born in Finland.
    - I was born elsewhere than in Finland.
    - One or both of my parents were born elsewhere than in Finland.
    - I belong to a linguistic or cultural minority—what?
    - I belong to a sexual minority—which one?

2. Mention 1–3 games you have played that describe your gaming habits and preferences. Why did you choose these games?

3. Do you behave the same in and out of games? (e.g., Is it allowed or right to behave differently in games than in everyday life? Would you like to behave differently in games? Do you think about your own behaviour?)

4. Describe a gaming-related situation where you behaved in a toxic manner or others said you did. What happened? How did the situation start and end? How did you feel during the situation? What about after it?

5. Think more broadly about your toxic behaviour in games and gaming communities. (e.g., What is it like? Why or in what situations do you behave like that? Has your behaviour changed over time?)

6. Have there been consequences for your behaviour in games? (e.g., Has your own behaviour upset you afterwards? Have you lost or gained friends or gaming company? Have you been banned from games or gaming communities? Have your friends, parents or other loved ones commented on your behaviour?)

7. Do you think something should be done about toxic gaming behaviour? If so, who should do it and what should they do? If not, why?

8. Anything else you would like to add?

eludamos
Journal for Computer Game Culture
Vol. 14, No. 1 (2023)

https://www.eludamos.org

Book Review

Literature, Videogames and Learning by Andrew Burn

Rob Gallagher

Eludamos: Journal for Computer Game Culture
Volume 14, issue 1, pp. 175–182

Book Review
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Abstract

A review of Andrew Burn's book *Literature, Videogames and Learning*. Published in 2022 by Routledge. ISBN: 9781032024523, pp. 232.

Keywords

Literature; education; adaptation; design; narrative

From Meg Jayanth writing back to Jules Verne via *80 Days* (Inkle, 2014) to *Akumajō Dracula X: Chi no Rondo* (Konami, 1993) lifting characters from *Carmilla* (Le Fanu, 1872), videogames have long taken inspiration from literature. But how might this relationship develop in the future? And what exactly happens when literary texts are reimagined as videogames? These are the questions at the heart of Andrew Burn's *Literature, Videogames and Learning* (2022). Burn presents a framework for understanding gaming's relationship with literature, while advancing a vision of how literary game making might feature in the school curricula of tomorrow. In so doing, he also sketches some fruitful future directions for game studies. As the book demonstrates, there is still a lot that literary studies can teach us when it comes to understanding the videogame's affordances as an expressive medium, discussing the ontological status of gamic characters, and exploring parallels between the oral storytelling cultures of yesteryear and the forms of algorithmic narration emerging today.

Burn's approach is three-pronged, encompassing theory, criticism, and creative practice. The early chapters of the book lay the theoretical groundwork, offering a blueprint for a "multimodal rhetoric and poetics of ludic narrative and drama" (2022, p. 54). The middle section applies this model to commercial videogames based on works of children's literature. Burn offers critical analyses of *Harry Potter and the Chamber of Secrets* (EA UK, 2002) and *The Golden Compass* (Shiny Entertainment,

Eludamos Vol. 14, No. 1 (2023), pp. 175–182
https://doi.org/10.7557/23.7286

2007), dissecting the developers' renditions of key scenes from their source material, explaining how these sequences differ from the literary and filmic versions of the same scenes, and asking what young readers/players make of them. The final few chapters draw on Burn's experiences running workshops in which participants are challenged to reinvent literary texts using Missionmaker, "a game-authoring software tool for young people" that Burn and his collaborators have been developing since 2007 (2022, p. 6). Chapters seven, eight and nine draw on sessions centred on the Anglo-Saxon epic *Beowulf*, while chapters 10 and 11 discuss games produced as part of workshops on Shakespeare's 1606 play *Macbeth*, a text that many British teenagers are required to study for their GCSE English exams.

As that precis suggests, different parts of the book are likely to appeal to different audiences, and which sections the reader is drawn to will depend to some extent on whether that reader is a narratologist, a theorist of adaptation, a videogame designer, or a schoolteacher. Which is not to say that the whole fails to hang together. In fact, for a book grounded in almost two decades of writing, research, design, and pedagogy, it is commendably cohesive. But it is also refreshingly accommodating. This is evident from the way that Burn presents his theoretical framework. Aware of the pitfalls of "mechanistic formalism" (2022, p. 54), Burn is less concerned with constructing an all-encompassing analytical apparatus than he is furnishing readers with terms and ideas that can facilitate new approaches to "reading and writing, playing and designing" (p. 19). Of the many ideas advanced in the book's early chapters, I was particularly struck by how Burn turns to Aristotle to advance a vision of a literary education that would enable students to become "*rhetor-rhapsode*[s]" (p. 108, emphasis in original). The Aristotelean rhetor deploys rhetoric, a set of "tools for argument and persuasion", to convince their audience (p. 64). In Burn's model the rhetor's toolkit expands beyond the linguistic to encompass other forms of multimodal meaning-making, including what Ian Bogost (2007) famously theorised as "procedural rhetoric", or the configuration of systems and simulations in such a way as to endorse particular values, ideologies, or points of view. Burn also wants students to become "rhapsode[s] … engaged in ludic poetics" (p. 66). In Aristotle's era rhapsodes were performers—but also interpreters and critics—of epic poetry. The title "combines the ancient Greek words for 'stitch' (*rhaptein*) and 'poem' (*oide*)" (p. 19, emphasis in original). The rhapsode, then, was a weaver of poems, unpicking threads from older works in order to stitch together new narratives (p. 27). Burn proposes that we might see videogames as "*digital rhapsodies*: woven artefacts stitched together both by author and player" using components that range from audio files and 3D models to rules and code to written text (pp. 19–20, emphasis in original). The rhetor-rhapsode, in short, is a figure versed in both critical analysis and creative expression, one whose purview extends across modes and media.

In developing these ideas Burn makes a strong case for an expanded conception of literacy, one better suited to "classrooms where language is no longer the unique, privileged, mode of representation" (2022, p. 27). At the same time, the book shows

that traditional literacies can enhance our understanding of how videogames function. In particular, Burn demonstrates how a command of grammar can assist in articulating and exploring the expressive possibilities of videogames as a code-based medium that asks players to assume in-game roles and perform actions that alter the state of a game-world. While it has long been commonplace for game designers to think in terms of the "verbs" available to the player (see, for example, Schell, 2008, pp. 141–144), Burn goes further, drawing on the work of narratologists like Gerard Genette and Ivan Todorov to address the narrative functions of verbs in terms of "tense, mood and voice" (p. 24). He offers insights into the relationship between players, avatars, and designers, too, following Ensslin (2014, p. 96) in proposing that "the second-person [is] the characteristic grammatical disposition of the videogame" as a medium that enjoins *you*, the player, to act (Burn, 2002, p. 9). He also draws attention to the forms of "pronoun-switching" that players resort to in their reports of gameplay, noting that avatars are sometimes treated as separate entities, and sometimes as extensions or symbiotic partners of the player (something also noted by Poppy Wilde [2023] in her recent account of digital gameplay as a form of posthuman entanglement).

More fundamentally, Burn proposes that we might see the translation from literary text to videogame as effecting a "crucial switch in the grammar of the narrative" (2022, p. 23), whereby "every event, in effect, becomes an 'if-clause': If Beowulf owns the sword, he can kill Grendel's Mother; if Macbeth kills Duncan, he will gain the crown" (p. 26). Making a literary text into a game means bringing about "a form of narrative transformation in which a modal auxiliary is inserted, a possibility left open" (p. 32)—so that we move, for example, from a narrative in which Lady MacDuff is doomed to die to one in which it becomes possible that she *might* escape her assassins. It is this "rendering of narrative as subjunctive" that, for Burn, defines ludic reinterpretations of literary texts, which must translate the scenarios they inherit into forms compatible with the "conditionality" that is the "natural mood of game grammar, encoded in the very rule system of the game" via the if/then statements that make up its programming (p. 26).

As this suggests, the book is, among other things, an extended meditation on the nature of adaptation—though this is, for various reasons, a term that Burn mostly eschews. Rather, he invites readers to see games based on literary texts as examples of "playful reading" that necessarily entail "interrogation or interpretation" of the original texts (2022, p. 9). Burn also draws on Luke Kelly's (2016) concept of "ideality" to propose that we might see older literary texts as aspiring to forms of interactivity that only became possible with the advent of digital games (Burn, 2022, p. 15). Taken too far, such a stance could seem patronising or presumptuous—as if the entirety of literary history was merely the precursor to the arrival of videogames. As a cue to imagine how traditional texts might be playfully reinterpreted, however, it is a suggestive prompt. For Burn, conversations about adaptation too often get bogged down in questions of fidelity, revolving around the issue of how far derivative works

stray from their inspirations. The concept of ideality, by contrast, asks us to recognise the ways in which a written texts might *already* be like a film or a game.

This proves easier with some texts than it does with others. As Burn acknowledges, certain literary texts, forms, and genres are obviously "game-like" in one way or another (2022, p. 5). *Beowulf* is structured around a series of battles in which the eponymous warrior vanquishes increasingly powerful monsters; its protagonist "is what [Walter] Ong [1982] called a 'heavy hero': characterised by simple memorable qualities; and *agonistic*, solving problems through physical action rather than psychological effort" (Burn, 2022, p. 107, emphasis in original). As Burn concedes, the poem's portrayal of its hero's plight "resembles the adventures of Spiderman, Superman and Batman more than it does the tortured protagonists of Renaissance drama or the modern novel" (p. 107). It already has a lot in common, in short, with games like *Alien Soldier* (Treasure, 1995) or *Shadow of the Colossus* (Team Ico & Japan Studio, 2005). Fantasy literature in general, with its "quests, potions, puzzles" and magic, has been proven time and again to translate well into games (Burn, 2022, p. 78). Playtexts, meanwhile, could be considered akin to videogames insofar as they must be brought to life by actors, just as games are nothing without players to realise the possibilities immanent in their code (p. 153). Burn also follows Ensslin in pointing to the playfully subversive literary experiments of figures like Borges, Beckett, and Sterne, and to "born digital" texts like Michael Joyce's experimental hypertext *afternoon, a story* (1990), as having elements that are notably game-like in one way or another (p. 14).

But Burn also insists "that literature *in general* is playful" (2022, p. 14, emphasis in original), and that videogame designers can and should look beyond texts that foreground quests and combat to explore "interiority, thought, motive, morality" (p. 171). While emotional depth and psychological insight are "sometimes popularly imagined to be difficult to achieve" in videogames, the *Macbeth* games that students create with Missionmaker find ingenious ways of translating the complex psychological and emotional dynamics of Shakespeare's play into playable form (p. 179). One pair of students designs a game in which Macbeth's levels of conscience, ambition, and courage can be boosted or lowered by certain objects (a strategy that Burn argues resonates with the play's imbuing of certain objects with talismanic or metonymic properties [p. 159]); others use spatial metaphors to render inner states, trapping a controllable Lady Macbeth in a labyrinthine space meant to represent "the sewers of [her] mind" (p. 156).

The sense that videogames are at a disadvantage when it comes to portraying believable characters with complex inner lives is one reason why they remain subject to snobbery and suspicion as a narrative medium. Presenting Missionmaker games that challenge this preconception, Burn also asks readers to recognise that the tendency to equate literary quality with the creation of 'deep' characters who follow developmental arcs is historically and generically contingent. Oral narratives like *Beowulf* never had much truck with questions of interiority or character development,

and nor does most children's literature. Avant-garde and experimental literature, meanwhile, has spent more than a century interrogating the model of the subject articulated in realist novels and classical autobiographies—and here it is perhaps noteworthy that recent works of experimental life-writing by authors such as Oli Hazzard (2021) and Michael Clune (2014) have turned to gaming to find alternative frameworks for thinking about selfhood, intentionality, and (un)consciousness. Burn also calls into question the fetishization of originality. He points out that if videogames share epic poetry's taste for heroic battles, another trait the two forms have in common is their *formulaic* quality. If today we tend to hear that word as a pejorative, this is in part thanks to Romanticism's championing of the idea of the true artist as singular, *sui generis* genius. As Burn suggests however, 'formulaic' need not be an insult. Epic poetry is often full of stock epithets and phrases, "us[ing] and re-us[ing] … building blocks of text" (2022, p. 123). If this made it easier for rhapsodes and their counterparts in other cultures (like the Anglo-Saxon *scop*) to remember long narratives, it also made those narratives easier to elaborate and reconfigure. Seen this way, oral composition and transmission begin to betray parallels with the "formulae of game programming" and the way that a finite stock of commands, rules and assets can provide a basis for countless hours of compelling permutations (p. 27). Without resorting to relativism, Burn insists that readers consider how cultural tastes and aesthetic values are developed, articulated and contested within particular social and historical contexts—processes that young students are already participating in when they link Lady Macbeth to later gothic heroines or debate the relative merits of *Chamber of Secrets* and *Resident Evil 3: Nemesis* (Capcom, 1999).

Elsewhere the book raises some interesting questions regarding cultural belonging and the ownership of texts and tools—questions that it is a pity there is not more room to explore. *Beowulf* and *Macbeth* are cornerstones of the English literary canon; the kind of works that conservatives love to represent as part of some precious national patrimony, despite *Macbeth*'s roots in Scottish history and the fact that *Beowulf*, often heralded as "the first great piece of English literature", lays its scene in sixth-century Scandinavia and "deals not with England or Englishmen at all" (Swanton, 1997, p. 6). Burn acknowledges the tradition of using these texts to mediate questions of identity and belonging while steering well clear of parochial jingoism. Opening *Beowulf* and *Macbeth* up to student-led processes of "creative re-making" (Burn, 2022, p. 126), he encourages students to draw on their existing knowledge and skills to produce works that better accommodate their identities and reflect their interests. In one workshop a year 10 student from an East London comprehensive uses the episode of Banquo's murder to imagine how a young woman of colour might have fitted into *Macbeth*'s world. In another a group of boys at risk of exclusion from a different London school come to recognise *Beowulf*—a poem written over a millennium ago in a dialect that has very little in common modern English—as a forerunner of games like *The Elder Scrolls V: Skyrim* (Bethesda Game Studios, 2011), part of a media culture that they feel at home in and capable of contributing to. Through such anecdotes Burn highlights the importance of public domain texts as sets of "cultural resources" (p. 127): reservoirs of characters, narratives, situations

and "storyworlds" (Ryan & Thon, 2014) that anyone can draw on. The Missionmaker software essentially literalises this metaphor, providing a database of character models, environments, and computational scripts that users can mix and match, tweak and tailor to produce games that offer new spins on a common literary heritage. As the game industry, and the media industries in general, becomes ever-more obsessed with amassing and exploiting intellectual property, such resources become ever-more important.

Which brings us to the ownership of tools, an issue brought to the fore by the recent Unity debacle. Long popular with indie studios and hobbyist game developers, and widely taught on university game design programmes, Unity's owners dramatically revised their terms of use in September 2023. Under the planned changes, developers whose games were created using Unity would have become subject to a "runtime fee" based on the number of times their game had been installed—a move that, among other issues, might have left developers whose games had been widely pirated, or who had contributed games to charity bundles, subject to crippling costs. While Unity walked back their plans in the face of widespread outcry, the episode was a reminder of how risky it is for creators to rely on corporate platforms. Then there are the ethical questions posed by the rise of *Roblox* (Roblox Corporation, 2006), which journalist Simon Parkin (2022) has charged with constructing an "empire built on child labour". While this aspect of the Missionmaker software is not stressed in the book, Burn makes a compelling case for giving young people access to tools that are not owned or operated by profit-driven private companies.

This is not how we tend to think about the role of game design in education—where, at least at university level, many institutions seem to have accepted that it is the job of educators to produce an oversupply of graduates who are already proficient with industry-standard tools and can slot easily into existing pipelines and workflows, keeping labour costs low (see Harvey, 2019). Burn is acutely aware of the challenges facing the humanities at all levels of education. By showing how game design can fit into literature syllabi, he provides much-needed ammunition to those making the case to governments that literary studies have a viable future. Ultimately, however, he is adamant about the limits of such instrumental thinking. Yes, creating literary games in the classroom can be a way of fostering brighter futures by cultivating civic engagement, media literacy, historical awareness, and a grasp of the principles of programming. But beyond the imperative to make students more employable, or even to help them become better citizens, Burn's epilogue insists on a different rationale for equipping students to reimagine literary texts as videogames: because it is fun; because poetry and play are inherently "enchant[ing]"; because a future devoid of "illusion, dressing-up, roleplay, magic and fantasy" is no future at all (2022, p. 212).

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eludamos
Journal for Computer Game Culture
Vol. 14, No. 1 (2023)

https://www.eludamos.org

Game Worker Solidarity

Mapping Collective Actions in the Video Games Industry

Austin Kelmore and Jamie Woodcock

Eludamos: Journal for Computer Game Culture
Volume 14, issue 1, pp. 183–191

Game Worker Solidarity
Mapping Collective Actions in the Video Games Industry

AUSTIN KELMORE AND JAMIE WOODCOCK

Abstract

This commentary discusses the Game Worker Solidarity (GWS) Project. It documents instances of collective action in the games industry, presenting the data in a map and accompanying database. The aim of the project is to facilitate sharing information on the emergent movement for unionisation in the games industry after 2018, as well as archiving the longer history of worker resistance. We argue that understanding worker organisation—both the existing forms of collective action as well as the potential in the future—is vital for understanding the future of games and game production.

Keywords

Game worker; worker organising; trade unions; solidarity

In this commentary, we argue for the importance of worker organisation for a sustainable future of games and game production. We do this by introducing the Game Workers Solidarity (GWS) Project and website, launched in 2021. The website aims to map and document collective movements by game workers striving to improve their working conditions.[1] It details solidarity actions and an underlying database, a community on Slack that moderates and edits the actions, and an open submission process. Many of the contributions have been submitted by workers who were involved, while others have been added through personal networks or news articles. It started as a collaboration between the authors—one a game worker and the other a researcher. Although it received initial funding from the Open University, it is not a solely academic project, but instead a form of co-research. Following the

[1] The website can be accessed at https://gameworkersolidarity.com/.

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https://doi.org/10.7557/23.7342

birth of an international movement for unionisation in the videogame industry in 2018, there has been a surge of collective actions. At one stage, these were happening so quickly, that we thought there was a risk of this emerging history of game worker organising being lost. The project was directly inspired by Collective Action in Tech (Tan & Nedzhvetskaya, 2020), a website that documents collective actions taken by workers in the tech industry. They had decided to focus solely on the tech industry (which, while there is some overlap with the games industry, has important distinctions).

Game worker organising

To make sense of the data on collective action in the games industry collected for GWS, we have compared it to other recent movements for unionisation. Although not a collective mapping, a timeline of "Digital Media Unionization" has been produced as part of New Media Unions (Cohen & De Peuter, 2020). As noted elsewhere, this helped to encourage the unionisation in the games industry, as there was significant positive coverage from journalists who were either unionised or in the process of unionising themselves (Woodcock, 2020a).

It is worth noting that the games industry remains culturally distinct from the wider tech industry. As Graeme Kirkpatrick explains, "people who work in the games industry are, invariably, invested in gaming as a cultural practice … games are made by gamers, with all that implies" (2013, p. 107). Indeed, game developers are part of a distinct group or "occupational community" (Weststar, 2015). There has, albeit in different ways in the games industry, been a longer history of struggle before unionisation (Woodcock, 2019). Nick Dyer-Witheford and Greig de Peuter (2009) trace this back to the games industry's hacker origins and the close connections with the military-industrial complex. There have long been issues with overwork—called "crunch" (Cote & Harris, 2021)—and gender discrimination and harassment in the industry. Neither of these interrelated phenomena are new but have long provided grievances that could be organised around (Woodcock, 2016).

One of the key questions is how and why workers move from these grievances to mobilising collectively or organising (Weststar & Legault, 2019). In a long-term study, the effects of financialisation on game workers were considered to be a challenge to effective organisation (Legault & Weststar, 2021). Similarly, issues around workers' visibility have been considered in the UK games industry (Ruffino, 2021), as well as how potential strategies for unionisation have had to adapt to this (Ruffino & Woodcock, 2021). This is related to the visibility above and below the line of game production, often with glamour above and precarious conditions below (Bulut, 2015), which challenges how different kinds of workers organise (de Peuter & Young, 2019).

Organising in the games industry took a critical turn in 2018. Although the French trade union STJV (*Le Syndicat des Travailleurs et Travailleuses du Jeu Vidéo*) had existed

before, the establishment of Game Workers Unite (GWU) at the Game Developers' Conference (GDC) marked a significant development (Woodcock, 2020b). This was close on the heels of the public organising of software developers as part of the Tech Workers Coalition in the US (Prado, 2018). This has led to the growth of game worker unionisation movements (and/or their challenges) in countries like the US, UK, Poland (Ozimek, 2019), Ireland (Moody & Kerr, 2021), and South Korea (Chung & Kwon, 2020). In the UK, this has taken the direction of joining an independent union (Kelmore, 2019); an example of the recent wave of "new unionism" (Ness, 2014, p. 269) with a history of organising with precarious workers (Alberti, 2016). However, in the US, game workers organised with the more mainstream Communication Workers of America (CWA) as part of the Campaign for Digital Employees (CODE-CWA). Therefore, at this stage of unionisation, different kinds of union models and strategies are being experimented with. As one study found previously, there is also evidence that the type of union matters for the propensity of game workers to join and the kinds of organising tactics that unions use (Weststar & Legault, 2017). One part of mapping solidarity actions is understanding which of these models are proving successful and in what ways.

Building the game worker solidarity website

The idea for Game Worker Solidarity came from a conversation in September 2020 between Emma Kinema, Austin Kelmore, and Jamie Woodcock while preparing for a panel hosted by Haymarket Books called "The Work of Videogames: Reflections on Game Worker Organizing." At the time, an increasing number of solidarity actions were happening in the games industry, and we were concerned that the details could be lost. Many events were promoted on social media, and details were not recorded anywhere centrally. We define a solidarity action as any collective action (involving more than one person) taken by game workers (a broad category of any worker engaged in the production of games, videogames or otherwise) to improve their working conditions (in the broad sense, both direct and indirect working conditions, improvements from current conditions or against changes).

The process of collecting data for the project was driven by the aim to build a resource for game workers. As noted on the website:

> The project is creating a website backed by a database of events that can be freely searched by location, type of action, and numbers involved for events like the creation of trade union branches, new contracts, strikes, protests, social media campaigns, etc. Where possible, we'll also interview and record oral histories with participants of these movements to produce a living resource that can help support and inspire more organising in the games industry.

This has involved various methods to populate and then update the database. First, we drew on the collective knowledge of the project participants; second, we had an

informal competition to find the earliest event in the history of game worker collective action (of which Austin is the current winner with the 1955 entry on the Nintendo workers hunger strike); third, we undertook a detailed search of news articles, both in general and in industry-specific publications; fourth, we contacted different groups of game workers, unions, and campaigns, requesting that they check the database and include any missing actions; and fifth, the website features an open submission process for solidarity actions.

As this is a crowdsourced database, there are issues with the scope of the data included. One of the main weaknesses of the data so far is that the team are primarily English speakers. Therefore, the data is skewed towards English-speaking countries, and solidarity actions are documented in English. For example, there has been an increase in events in Korea in recent years, but the actions recorded so far are likely only to represent the most visible instances. To address this, the aim is to expand the project team to include more languages and actively seek to redress this imbalance.

The data so far

As of 2023, the project has documented 155 unique solidarity actions in the games industry. These cover a period from 1955 to the present, including 19 countries. The US has by far the most documented solidarity actions on the website (76), followed by France (19), Canada (12), South Korea (10), and the UK (9). In part, this may be a reflection of the English-speaking biases of the project, as well as the relative size of the games industry in some countries and the current wave of organising.

The first documented solidarity action was in 1955 at Nintendo, an unusually early entry due the company previously manufacturing playing cards. There have been other examples of relatively isolated solidarity actions from the 1980s onwards, particularly at companies like Atari and later with voice actors. In 2017, the SAG-AFTRA voice actors' strike ended in a deal, and game workers started unions in France and Finland. However, there was a spike of 29 solidarity actions in 2018, with the launch of Game Workers Unite (and many local chapters), and unions in South Korea and the UK. This higher level of solidarity actions has continued in 2019 (20), 2020 (21), 2021 (24), and 2022 (24). The launch of Game Workers Unite has been seen by many as a pivotal moment in the history of game worker organising, in which the idea of unionisation became widely debated in the industry. However, this also means that it has received more news coverage, meaning it is still essential to inquire into instances that predate 2018. Even with the limitations discussed in the previous section, it is clear that there has been an increase in public-facing solidarity actions since 2018. However, a range of different activities can be included under this broad categorisation.

The most significant of these has been the emergence of ten new organising groups, most of which are in North America, except for STJV Plug In Digital in France. The

establishment of these groups has been part of the broader push by CODE-CWA in North America to form seven new unions. Significant differences exist between the industrial relations system in the US and other national contexts. The need for union cards and petitions for NLRB elections means there is a public company-by-company process for unionisation, something not required in other contexts with game worker unions like France and Britain.

There have also been some concrete wins for solidarity actions in recent years. For example, the union Novi Sindikat signed a collective bargaining agreement at Gamechuck in Croatia, with improvements including 6-hour working days. Dreamfeel signed a living wage campaign pledge as part of an ongoing GWU Ireland campaign. In the US, 1,100 Quality Assistance (QA) at Blizzard Activision were made permanent following a campaign, receiving higher wages with a new minimum of $10 US dollars per hour and benefits. In 2023, there was the formation of the first union of game workers in Poland, unionisation in Sweden, further unionisation across North America, and strikes by SAG-AFTRA members over their interactive media contract.

Where next for game worker organising?

The GWS project has so far been a success. The website has a set of practices and processes for inviting, assessing, and uploading solidarity events to an accessible database. An increasing range of data is included on the website, although some notable areas require further coverage, particularly those not covered in English-language news. It has met the initial goals of ensuring that events following the 2018 wave of game worker unionisation were documented to ensure they remained available afterward. There are challenges for expanding the coverage beyond this, but many of those initial events are now recorded (including attachments with statements and other resources where possible) for future analysis.

It has also raised questions about what has happened in game worker organising. The key dynamic in recent years was the continuing push for unions in the US, led by CODE-CWA and union election votes. As noted, this is specific to the industrial relations system in the US and does not compare that effectively with other contexts. These are "public" moments of campaigns, that otherwise may not have been visible to people outside the organising groups in different industrial relations systems. For example, in Britain, union membership is protected and can be kept secret from employers.

The public union votes are a shift from the three emergent lessons from the 2018/2019 organising. As Woodcock (2020a) noted previously, the first lesson is that there are alternative approaches to building collective power that can be seen with the game worker unionisation wave. In particular, this involved a discussion of GWU, the now-defunct international network. Instead of building from a network outside

the workplace, many groups in different national contexts have been trying to develop workplace networks or unions, returning to international networks, like the UNI Global conference.

The second lesson was that contesting control over work, rather than pay, could be an important motivator for organising. There are various control-related issues, whether "crunch", what kinds of videogames are made (and with what partners), and issues relating to diversity and gender oppression in the industry. However, there have been relatively few instances in which these questions have been taken up in organising campaigns. Other than the walkouts at Riot Games, the campaigns have primarily focused on the right to have a union (and then to be able to bargain collectively) and fighting for basic improvements, like the campaign for permanent contracts at Activision Blizzard. Notably, the driving force in organising campaigns in the US has been either lower-paid and more precarious QA workers or those at smaller, independent studios. There has yet to be a breakthrough with developers at a large company.

The third lesson remains important: that the development of game worker organising will need to meet game workers where they already are. At first, this meant developing things like the GWU zine and using Discord for communication. However, there is now an increasing production of material and resources of game workers that is developing a specific way of organising with these kinds of workers.

Finally, this feeds into an important issue to be explored further: the different and divergent forms of unions and models being experimented with in the games industry. In each country, game workers have taken different approaches to unionisation. In some cases, workers have joined larger established unions (US, Canada), including those closer to professional associations (Australia), founded new unions (France), joined independent unions (UK), or established enterprise-level unions (Korea). Each of these paths has benefits and constraints, including the different models of the unions (whether organising, servicing, or otherwise), tactics and strategies, levels of funding and resourcing, integration with other parts of the union, and so on. The continuing growth of the game workers movement highlights the importance of international solidarity. The games industry is becoming increasingly globally integrated, particularly through ownership relationships and the centralisation of capital. There is clear potential for greater cooperation between game workers internationally. Each of these questions is essential yet remains relatively unanswered so far.

Acknowledgements

The Game Worker Solidarity website was developed as part of the "Mapping Labour Organising in the Games Industry: Past, Present, and Future" project, funded by PVC-RES at the Open University, UK. We would also like to thank Common Knowledge, Shauna Buckley, Pablo Lopez Soriano, and Michelle Phan for their support on the project.

Conflicts of interest

Austin Kelmore and Jamie Woodcock are both members of the team that started and maintains the Game Worker Solidarity website. They are both members of unions that have been featured on the website.

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