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10th Anniversary Issue

Gamevironments Revisited

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Community, Alienation and the Experience of Networks. Gamevironments and Theories of Communityⁱ

Dom Ford

Abstract

I examine Kerstin Radde-Antweiler's (2024) updated concept of gamevironments through the lens of community. I introduce two key theories of community and consider how gamevironments relates to them. In particular, I point out that the theoretical links between actants may not be experienced as connections at all, let alone as communities. This raises the question of when and why the connections that gamevironments reveals are experience. Building from Benedict Anderson's notion of the imagined community, I ask which communities must be unimagined in order to sustain unsustainable or deleterious systems, such as the cobalt miners who make electronic devices possible and their working conditions that make those devices economical. I then turn to datafication, relating it to deep mediatisation and deep gametisation, and consider why the hyperconnectivity on the internet seems to have exacerbated rather than resolved loneliness and alienation. I use a Marxist conception of alienation to show that datafication is fundamentally alienating, and that this impacts on how actant networks are experienced. The implications for gamevironments are that the nuances of different digital infrastructures must be taken into account in any gamevironment, in particular the kinds of connections that are and are not afforded between actants.

Keywords: Community, Alienation, Datafication, Mediatization, Gametization, Imagined Community, Sense of Community, Data, gamevironments

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Revisiting the concept of *gamevironments* is crucial in light of developments in the study of games, data and media over the past decade. In media studies, we can turn

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to concepts like *deep mediatisation* (Couldry and Hepp 2017, 54-55) which stress not only the fundamental integration of media ecologies into social ones argued for in the term *mediatisation*, but a more definitional, foundation, integral role of media in the very construction of the social. Mediatisation theory has also seen vital interjections from environmental approaches, which challenge the absence of the environment in many such discussions (Kannengießer and McCurdy 2021). The resurgence of a material approach is present also in what has been called game studies' *material turn* (Apperley and Jayemane 2012), leading to a renewed focus on and critique of the disastrous environmental impacts of the (increasingly swelling) *digital* aspect of digital games (Backe 2017, Chang 2019, Abraham 2022, Fizek et al. 2023, Hammar, Jong, and Despland-Lichtert 2023, De Beke et al. 2024).

For these reasons in particular, Kerstin Radde-Antweiler's broadening of the gamevironments concept to (1) assert the importance of nonhuman actants, (2) to break down the distinction between the technical and cultural environments of digital games, and (3) stress the involvement and importance of also *indirectly* related actants, is extremely welcome (Radde-Antweiler 2024). While these points speak to more than just the environment, to ignore the centrality and inextricability of the environment from the production, proliferation, consumption, maintenance and afterlife of digital games after the last decade of research especially is, frankly, unconscionable.

The central aim of this paper is to consider what an approach from the broad concept of *community* can take from the revised notion of gamevironments as well as what challenges community may pose to it. *Community* has been theorised in many ways, and my goal here is not to champion one understanding over others, but to note the variety and how they may link to gamevironments. In particular, what this leads to is

an elucidation of the gulf between the theorised connections between communities, environments and things, and the experience of those connections. I note that some parts of the network need to be actively *unimagined* for the system to be sustained, and that as researchers we should pay heed not only to what is connected, but to how those connections are or are not *felt*. To this end, *alienation* will be an important concept. This critical engagement with Radde-Antweiler's concept is done chiefly through putting other theorists into conversation with each other, with some limited use of examples that would be potential applications of this approach, such as GamerGate. First, though, I expand on the concept of gamevironments and Radde-Antweiler's 2024 update.

Gamevironments Then and Now

The portmanteau title of both the concept and this journal, *gamevironments*, stresses the fundamental inextricability of games and gaming from their broader environments (Radde-Antweiler, Waltemathe, and Zeiler 2014). This 2014 theorisation lays out two levels for analysis: the technical and the cultural environments of games and gaming. It advocates an actor-centred approach whereby researchers must attend to not only those actors *directly* a part of the gaming activity (e.g., the player or players), but also those less directly involved. Each affects the other in a rhizomatic network of actors, and so arbitrarily looking only at the game itself, or at those directly involved in its playing, will always be lacking crucial cultural context.

Radde-Antweiler's (2024) critical revision of the concept in this issue takes into account the theoretical advances made over the last decade. Two points in her revision are key. The first is the shift from actors to actants. Agency is exerted not only by human actors, but also by nonhuman actants, such as data, hardware,

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software, and so on. We should not examine the technical context of a game on a separated level, as in the 2014 version, but with equal salience given to all actants. The second point is a methodological one, that gamevironments can be analysed as *communicative figurations* (Hepp and Hasebrink 2018). These figurations consist of a thematic framing, within which the researcher identifies the constellation of actants and the communicative practices between them.

This helps gamevironments to be operationalizable within a context of *deep gametisation*. Radde-Antweiler (2024) outlines deep gametisation as not only the omnipresence of digital games within societies, but also its reciprocal causality. That is, games are not only a *product* of society, but a more fundamental, constitutive and inextricable *part of it*.

Two Theories of Community

Perhaps the most well-known theory in this regard is Benedict Anderson's (1983) concept of the *imagined community*. This is not actually a definition of community per se. Rather it leverages the idea of community to define, as the title states, the origin and spread of nationalism and the nation-state as a concept. *Community* is actually a term taken for granted in Anderson's concept here. Nonetheless, its influence amongst thinkers of community means it bears examination.

Anderson defines the nation as "an imagined political community – and imagined as both inherently limited and sovereign" (1983, 6). He unpacks each of the key terms here:

"It is *imagined* because the members of even the smallest nation will never know most of their fellow-members, meet them, or even hear of them, yet in the minds of each lives the image of their communion. ... In fact, all communities larger than primordial villages of face-to-face contact (and perhaps even these) are imagined. Communities are to be distinguished, not by their falsity/genuineness, but by the style in which they are imagined." (1983, 6)

"The nation is imagined as *limited* because even the largest of them, encompassing perhaps a billion living human beings, has finite, if elastic, boundaries, beyond which lie other nations. No nation imagines itself coterminous with mankind." (1983, 7)

"It is imagined as *sovereign* because the concept was born in an age in which Enlightenment and Revolution were destroying the legitimacy of the divinely-ordained, hierarchical dynastic realm." (ibid.)

"Finally, it is imagined as a *community*, because, regardless of the actual inequality and exploitation that may prevail in each, the nation is always conceived as a deep, horizontal comradeship. Ultimately it is this fraternity that makes it possible, over the past two centuries, for so many millions of people, not so much to kill, as willingly to die for such limited imaginings." (ibid.)

His elaboration of the term *community* here is interesting in the context of being imagined: the effect of community is the perception of "deep, horizontal comradeship" (ibid.) with those who are also interpolated as part of the same group of people. Where a community can be (self-)identified, Anderson assumes not only some kind of commonality, but comradeship.

Gamevironments is then a concept that does two things to community here. First, it helps to stress a point that Anderson makes clear throughout his book, that underpinning these imaginings is necessarily a technosocial infrastructure that frames the connections between people who never have and never will know of one another. For example, national newspapers which frame issues around the world with

references to how it affects or is affected by *our* nation, and which provide a twice-daily (in Anderson's day) "mass ceremony" (1983, 35) in which each member of the nation can imagine millions of others performing precisely the same ritual simultaneously (1983, 32-36).

It would be a mistake, therefore, to argue that Radde-Antweiler's shift from human actors to human and nonhuman actants is a necessary consequence of only the last couple of decades of mediatisation and gametisation. Rather, it reflects the fact that this has *always* been the case. The nation *cannot* be understood without reference to its technosocial infrastructure, even if specific media – like newspapers – have fallen in saliency while others – like social media and game platforms – have ascended to prominence.

Anderson's theory has been used by many scholars to usefully theorise digital communities in particular – alongside valid criticisms of the concept in this context (Trattner 2023) – owing to the fact through the focus on imagination, communities do not require physical presence or colocation. For instance, Gregory Price Grieve (1995, 110) uses Anderson to discuss neo-Paganism flourishing on the internet, existing "where a community ought not" through virtual ritual and shared imaginings rather than through physical presence. In digital games, Joleen Blom (2018) has used Anderson to theorise how transmedial franchises can be experienced as a *shared universe* by people who interact with different medias in the franchise and still conceive of themselves as a community. The concept of *imaginedness* is vital for these approaches, and it is particularly fruitful for a digital community due to its nonreliance on physical presence.

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Second, gamevironments extend beyond the confines of any one community. Even if we take as our research design, using gamevironments as a lens, one particular community to study, by thinking about the gaming and gaming-related practices and actants involved, we are always expanding beyond the community. For example, a community surrounding a particular game is, knowingly or not, reliant on the developers of the game, the developers of the internet forum or messaging platform on which they communicate, the cobalt miners in the Democratic Republic of the Congo (DRC) who extracted the raw materials that would be processed into all the necessary electronic devices along the way, and so on. And each of these *other* groups may or may not conceive of themselves as a community.

This is not to say that we cannot analyse anything without analysing *everything*. As Radde-Antweiler makes clear, this would make for a paralysing analytical framework. What it *does* mean in the context of community is to stress that the community never exists in isolation, but is always contingent on countless external factors and other communities. To flip Anderson on his head, we might think of all the *unimagined* communities necessary for *this* community to exist at all. That is, it is necessary for communities to *not* imagine the existence of certain other communities in order to sustain themselves. Just as it is in the interests of the nation to unimagine, for example, secessionist movements that undermine the concept of the coherent nation, so too is it in the interests of a gaming community to unimagine the slave labour that makes their pastime possible.

Another extensively cited definition of community comes in the concept of *sense of community*. Coming from a psychological perspective, David W. McMillan and David M. Chavis (1986) want to better understand when, how and why it is people perceive

themselves to be in and identify with a community. They identify four elements that contribute to a *sense of community*:

"The first element is *membership*. Membership is the feeling of belonging or of sharing a sense of personal relatedness. The second element is *influence*, a sense of mattering, of making a difference to a group and of the group mattering to its members. The third element is reinforcement: *integration and fulfillment of needs*. This is the feeling that members' needs will be met by the resources received through their membership in the group. The last element is *shared emotional connection*, the commitment and belief that members have shared and will share history, common places, time together, and similar experiences. ... Sense of community is a feeling that members have of belonging, a feeling that members matter to one another and to the group, and a shared faith that members' needs will be met through their commitment to be together." (McMillan and Chavis 1986, 9)

Here also the gamevironments concept encourages us to broaden our understanding of community to, if not include, rely on much more extensive networks of actants. For example, with the third element, *integration and fulfilment of needs*, we must ask what those needs are and how they arose.

In Torill Elvira Mortensen's (2018, 799) important article on Gamergate, she observes that, while some gamergaters (especially high-profile ones) are wealthy and privileged, many "are unemployed, very young, undereducation, or have social problems. They often speak about themselves as undesirable and express the opinion that if games change, they will lose the only thing that holds value to them." In other words, Gamergate can be understood as a community insofar as it fulfils the material and social needs of many disposed people particularly in the USA. Arguably, the continuing non-fulfilment of these needs led many of the same demographic as gamergaters into the alt-right, the Trump campaign and conspiracy communities like

QAnon (Bezio 2018, Peckford 2020, Mortensen and Sihvonen 2020, Schoppmeier 2019, Massanari 2020).

This is not to say that Barack Obama is to blame for Gamergate. But it is to say that broader social and material conditions – therefore including both seemingly unrelated human and nonhuman actants – can play a significant role in the impetus for the formation of a community and the engine behind its maintenance as a community, even if its outward form shifts and morphs with events. Gamevironments as a concept urges us to engage with these broader actants and to see their part in the object of study.

These are only two theories of community, albeit prominent ones. But already we see what gamevironments as a framework demands: approaching the object of study holistically. And, while this revised concept does insist on nonhuman actants as well as human, in contrast to the original formulation (Radde-Antweiler, Waltemathe, and Zeiler 2014), that is not the only change. What is made particularly clear with the GamerGate example is what Radde-Antweiler terms the *deep gametisation* of society. Deep gametisation is construed as a specific part of deep mediatisation, which refers to not only the fact that society is increasingly saturated with media, but that it is increasingly founded on and shaped by media (Couldry and Hepp 2017). Digital games don't simply reflect and represent facets of society, they shape society. From GamerGate providing a blueprint for the rise of the alt-right to some of today's biggest and many prestigious TV series now being based on digital games (e.g., The Last of Us (2013-2020) and the Fallout series (1997-2018)), from the Catholic church looking to a blasphemous game series to help restore an iconic sacred space to the production of game consoles bolstering demand for cobalt from mines in the DRC, digital games are increasingly shaping the world.

That is not to say that games are the most *important* thing in the world or that they will be. Smartphones contribute more to cobalt mining than game consoles;

Assassin's Creed Unity (2014) ultimately helped very little with the restoration of Notre Dame; there are many more huge TV hits not based on videogames; other aspects of society obviously contributed to the right of the alt-right. But it is to say that, as a part of deep mediatisation, digital games are playing an increasingly significant role. This concept helps us to think not only of the representational qualities of digital games – a detached window through which we can analyse everything that's happening out there – but the effects and impacts of digital games right here, right now, in the muck with the rest of us.

Datafication and Alienation

While the concept of gamevironments reveals a panoply of connections between the object of study and the world it's situated in, the quality and salience of those connections is something the researcher must analyse for themselves using more fine-grained analytical approaches. Gamevironments breaks down the conceptual barriers between actants, but does not consider why those barriers were erected in the first place. Why do miners in the DRC feel so distant from gamers? How do the dynamics of the cloud change the perception of these connections (Mytton 2020)? Who or what is being unimagined in order to sustain the communicative figuration? What are the qualitative effects of the kind of gamevironments we are looking at? From the perspective of community, these sorts of questions are the real meat and potatoes.

In the rest of this article, I explore a dynamic that can problematise notions of community from both an emic and an etic perspective: *alienation*. Guy Debord (1967,

10) writes in *The Society of the Spectacle* how "the reigning economic system is a *vicious circle of isolation*. ... From automobiles to television, the goods that the spectacular system *chooses to produce* also serve it as weapons for constantly reinforcing the conditions that engender 'lonely crowds'." Debord observes how all of this innovative technology that appears to connect the world together more than ever is paradoxically also more isolating. The automobile allows one's social circle to expand far beyond their immediate surroundings, no longer reliant on slow travel by horseback or fast but temporally and spatially limited public transit like trains. But it also allows for that travel to be conducted shuttered away alone in a box, scarcely having to talk to another living person between A and B.

Debord's observation holds true today. Radde-Antweiler (2024, 16) brings up briefly the notion of *datafication*, "the representation of social life through computerized data produced by media devices and their underlying software and infrastructure" (Kołodziejska et al. 2023, 201), but does not develop it further. For me, datafication is at the centre of gamevironments, not only because of how it contributes to deep gametisation as a part of deep mediatisation, but also because of how datafication shapes the *quality* of subjective and intersubjective experiences of communities.

How these digital infrastructures shape the us and the world is vital in a time of deep mediatisation, gametisation and datafication, because the *deep* means that they are not only omnipresent, but foundational and constitutive of our very subjectivity, inextricable from ourselves and our mode of being in the world. That reliance and inextricability also makes these infrastructures supremely vulnerable to manipulation by misanthropic interests such as capital.

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To see how fundamental datafication is to today's society, consider Olga Goriunova's description of the *digital subject*:

"While individual data points can be tendentially evidential, they are not documents or evidence, and profiles are even less so. Digital subjects are values, dynamically re-instantiated correlations, rules, and models, shreds of actions, identities, interests, and engagements, which are put into relation with each other, disaggregated, categorized, classified, clustered, modelled, projected onto, speculated upon, and made predictions about. Digital subjects are unconnected and entangled, distributed and distributive." (Goriunova 2019, 133)

The digital subject is therefore both hyper-individualised *and* fundamentally non-individual. Goriunova (2019, 134) explains how data extracted from individuals is used in aggregate to describe groups, and the traits of those groups may then be used to fill in missing information about individuals, or even to create prospective individuals who never existed at all. In this way, though our data is highly individual in its extraction, it is only useful in aggregate, and it is from that aggregate that individuals are *re*constituted – resemblance to living selves is then incidental. This is the *distant indexicality* of data (Goriunova 2019, 131). At least with the automobile, we know there is a *person* in there (potential self-driving trucks notwithstanding) – with the digital subject, we are at pains to identify real humans at all.

Experientially, this means that "data talks for and about a citizen's life" (Barassi 2019, 426). People are abstracted so far from the creation of data and the processing of it – the passing of data between algorithms – that the hyperconnectivity promised by the internet turned out to be a monkey's paw promise. The global village promised by the internet became a ghost town. The dead internet theory is the evocative conspiracy theory that the internet died and is now populated solely by Als that give the illusion of a thriving internet. This may not literally be true, but the fact that it resonates with so many is telling of the alienation caused by the datafication

Steinmann describes. In slightly less hyperbolic terms, many tech writers have talked of a *dying*, *ruined* or *broken* internet (Zitron 2021, Brereton 2023, Lewis 2023, Lopatto 2023, Sato 2023).

Michael Steinmann describes this in Marxist terms as alienation:

"As a structural condition, alienation first and foremost plays out in the incongruence of the purposes that are involved in data production. Following Marx, I assume that in producing personal data, agents seek to assert the reality of their existence (humans are real through the reality of the objects they use), participate in inter-personal and social relations, and achieve the recognition of others. At the same time, their data become resources for someone else. While agents create data, they actually work, or better: someone else considers what they do as valuable work." (Steinmann 2022, 99)

Datafication broadens our network of actants our enormously. My conversation with a friend now becomes mediated through a digital platform owned by a company like Meta, who harvests data from both me and my interlocutor (if not by using the content of the chat specifically, because chat apps are now often end-to-end encrypted, then at least by my patterns of usage). This data is stored somewhere, processed by other actants within the company, and possibly also distributed or sold to third parties who in turn store and process that data. This data may go on to be used to make decisions by any of these parties, or to train large language models (LLMs), which we may then encounter in the form of chatbots on online shops, helping us with programming problems in ChatGPT, or as a virtual companion on our phones. A cosy conversation with a close friend has a million digital ears listening in and taking notes. Cumulatively, these digital ears distort and distract from that assertion and recognition of the reality of existence Steinmann notes.

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When I watch a series as Netflix uses A/B testing to figure out whether a ten- or a five-second countdown before the next episode automatically plays generates more so-called engagement, I feel watched, however subtly. It is not that the original purpose – to watch a television show – has been lost, it is that the presence and pressure of other actants in the network becomes increasingly apparent, leaving one feeling more abstracted, more *used*.

And Debord's argument here is also relevant. When I can watch shows and films and home more easily and cheaply, I don't go to the cinema as often. When I can catch up with friends online, I may, consciously or not, be less inclined to book a trip and visit them. When I can shop online, I am less likely to go to the trouble of heading into the city centre. Online gaming is a wonderful hobby that may also leave less time for other hobbies that require meeting physically, such as sports or clubs. Just as Debord said of the automobile and the television, the very technologies that connect the world more than ever before also gives us the tools to isolate from it. Or – to avoid making an unsavoury binary distinction between the online world and the real world – give us the tools to engage with it from more individuated positions (me in my home, you in yours). This, intertwined with and alongside material, political and economic factors in various countries, may help explain why loneliness appears to be increasing, not decreasing, in many places despite the undoubted connectivity of these digital technologies (Pittman and Reich 2016; Gentina and Chen 2019; Nowland, Necka, and Cacioppo 2018).

It is important to note that the picture of loneliness and its relationship to digital society is not simple. It depends specifically on *how* people choose to use various platforms (Masur 2021). And it is worth distinguishing between different kinds of different media in this regard. Especially relevant for our purposes here would be

whether digital games are better in terms of mitigating, preventing or reducing loneliness. The evidence so far, generally speaking, is (a) inconclusive and (b) low quality (Luo et al. 2022), although evidence of the benefits of online gaming during crises appears better (Pallavicini, Pepe, and Mantovani 2022).

Implications for Gamevironments

The challenge to those who apply the concept of gamevironments in the context of community is that the links that gamevironments reveals between things do not tell one anything about the perception or salience of those links. The example of alienation here reveals a potential pitfall with using gamevironments as a heuristic: we may impose a conceptual actant network from an etic perspective and fallaciously make assumptions about how that network is perceived and worked within from an emic perspective.

From an emic perspective, a constellation of actants may or may not perceive themselves to *be* in any kind of constellation or community. Some actants will obscure or *unimagine* parts of the network, such as not wanting most technology consumers to start getting curious about cobalt and where it comes from. Alienation in particular shows us that even those who would consider themselves a part of a community may find that the technology that community is mediated through has qualitative effects on the subjective experience of being a part of that community.

These perspectives are not at all incompatible with gamevironments as a heuristic.

Rather, they are aspects that may be overlooked when we simplify and abstract actants in order to look at the bigger picture. Indeed, flattening all human and nonhuman entities involved to 'actants' can lose the nuance that's needed when

researching community in particular. What turns a particular part of a network into a *community* relies on the more subjective, affective parts of Anderson's (1983) and McMillan and Chavis' (1986) theories of community. A community is always more than just a group of people, particularly when that grouping is applied from an etic perspective.

Gamevironments offers a useful heuristic to zoom out and connect a community in question to other constellations of people and to the material conditions on which they rely. This is particularly important when it comes to digital game communities, for whom the technologies they employ may not be incidental but foundational. That is, WhatsApp is not integral to my family, but it has become the platform on which most of our communication occurs. This no doubt has some impact on how we communicate, but if WhatsApp were to die we would simply find another messaging app and move on. Game communities may be more complex in this regard because the game itself can not only determine some of the conditions of communication and interaction, but can be foundational to the community itself. A guild in World of Warcraft (Blizzard Entertainment 2004), for instance, is a rich site for exploring community dynamics (e.g., Mortensen 2003, Ducheneaut et al. 2007, Bainbridge 2010, Ang and Zaphiris 2010, Robinson and Bowman 2022), but it is a community that would likely not persist were the game to be taken down, or the players move onto other games. Smaller groups within a guild will often stick together through various games, but rarely would the whole guild survive a shift of game.

Digital gameworlds need to be considered as important material conditions for the formation and maintenance of digital game communities within a gamevironment. For gamevironments, it is crucial that the gameworld is itself taken seriously as an actant (or, perhaps, as a nested network!) that plays a significant role in the

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formation, negotiation, maintenance and dynamics of any community built around it, which is in turn affected also by those much broader networks of gaming-related actants including the developers, other game communities, the material conditions that make digital gaming possible and the environment consequences of that, and the socioeconomic conditions of the players that are or indeed are *not* a part of it.

The 2024 critical revision of gamevironments, then, has much to offer analyses of digital game communities. It helps us design research that escapes the narrow, lazy presumptions regarding who and what is relevant to the study of any given community, and gives us tools to map out and analyse those broader networks. Theories of community are important to integrate into this research design, both because they help establish the thematic framing of the communicative figuration in question, and also because external theories reveal the pitfalls and blindspots of gamevironments as a framework.

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