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# Edward King

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# GAMING RACE IN BRAZIL: VIDEO GAMES AND ALGORITHMIC RACISM

*This article argues that video games can function as a critical platform from which to intervene into the conjunction between embodied experiences of racialisation and the production of race as a category within the cybernetic forms of identification of platform capitalism. Through analysis of the role played by race in video game cultures in Brazil, I explore both the affordances of video games and the limitations of their use in the fight against the specific forms that racism takes in the digital age. I carry out an in-depth analysis of two recent games,* Dandara *(2018) and* Mandinga *(2021), which both construct powerful critiques of "algorithmic racism" in Brazil, by focusing on the relationship between their representation of race at the levels of narrative, plot, and imagery and the ways in which the player interacts with the games' algorithms. While* Dandara *exploits tensions between the two to draw attention to the mix of authoritarian and "instrumentarian" (Zuboff) power in contemporary Brazil,* Mandinga *highlights parallels between its gameplay and the processes of racialisation to present algorithmic racism, which often goes unnoticed, as an act of violence that inherits some of the procedures of slavery and the social systems that perpetuated it.*

**Keywords:** video games; race; algorithmic racism; Brazilian culture

In March 2021, *Wired* magazine hailed esports as an "unlikely source of hope" in Brazil's favelas (Garcia 2021). In the absence of state support during the Jair Bolsonaro regime, the author suggests, private organisations operating with powerful commercial backing have filled the void to make esports a springboard for social mobility.[1] Non-profit organisations such as Zero Gravity, Fluxo, and AfroGames (partners of the Rio-based cultural initiative AfroReggae) give young people from low-income backgrounds the equipment and training necessary to compete internationally. In 2019, the founders of PerifaCon, which hosts pop-culture conventions in the Capão Redondo favela in the outskirts of São Paulo, set up a "Favelas Cup" for 12 teams from around the country. As the tournament hostess Daylanne Nayara (quoted in Garcia 2021) puts it, "[he competition's mission is to reach the most communities in Brazil, offering esports championships and encouraging children and adolescents to enter the world of technology and innovation". The *Wired* journalist positions video games as a key front in the battle against racism in contemporary Brazil. However, the magazine's techno-utopian perspective glosses over the complex racial politics behind this boom in esports among

marginalised populations of Brazil and neglects the broader picture of the relationship between video games and racialisation in the country. This article carries out a broader examination of the role played by race in gaming cultures in Brazil, from esports and commercial games to independent productions and the use of video games in social enterprises. "Gaming race", I argue, takes place at the intersection of embodied experiences of racialisation and the production of race as a category or type within the cybernetic forms of identification of digital or platform capitalism. Video games can function as a critical platform from which to intervene into this conjunction – to explore its potential for different practices of racialisation.

The growing involvement of Black and Indigenous players in video game cultures in Brazil has taken several forms in recent years. These include increased access and connectivity to gaming networks; more equal representation at the level of narrative and avatar design; and efforts to involve more Black and Indigenous designers and coders at the level of production. Speaking on the PerifaGamer podcast, Luiz Queiroga points out that, until recently, the esports community in Brazil has been an elitist bubble centred in the metropolitan South-East and populated predominantly by white men. He argues that the dominant esports institutions reproduce the structural racism that characterises Brazilian society more broadly (Delgado and Queiroga 2020). This bubble has been troubled, if not yet completely burst, Queiroga suggests, by the accessibility of the game *Free Fire*, which can be played on a smartphone and became popular among the esports community in Brazil in 2019. The use of a smartphone rendered unnecessary the expense of a PC, which, alongside a good internet connection, had previously constituted the main financial barriers to participation in esports. The result is that, while longer-standing esports games such as *League of Legends* are played predominantly in the wealthier South-East, *Free Fire* is more prevalent in the poorer parts of the country.[2] However, despite the increased accessibility of games like *Free Fire*, the world of esports in Brazil remains extremely unequal. Racist language is still not uncommon among gamers, while, as Christopher B. Patterson (2020, 62) points out, the wider discourse around esports reproduces "a techno-Orientalist racism" in its discursive treatment of the East Asian companies that produce games like *League of Legends* and *Free Fire* as well as the most successful players. East Asian identity within the world of esports is coded "not as creative or independent but as passive and robotic – well suited for the programming and engineering labor of information technology" (Patterson 2020, 62).

Alongside increased access to esports competition, there has been a boom in the production of video games that seek to address inequalities at the level of the representation of Black and Indigenous people within video games produced in Brazil. Sue the Real, for instance, describes itself as a "game studio focused on Afro-Brazilian narratives" and has a list of games that include *Angola Janga*, a version of comic book artist Marcelo D'Salete's 2017 history of the Quilombo de Palmares. According to Sue the Real's website, "We look to the past and find our ancestry in Quilombos. We look at the present and find our resistance in Favelas and Quebradas. We look at the future and find the uprising of the Black People". At the 2021 SBGames conference, researchers from the Universidade Federal do Ceará presented a prototype of an educational game called "Get Quizzfty" designed

to teach students about Afro-Brazilian and Indigenous cultures. The game's back-story takes place in a "utopian future in which humanity lives in perfect harmony" (Correia da Silva et al. 2021). An avatar described as a student in this fictional university of the future finds a smartphone with "Get Quizzfty" installed and starts to ask questions about the Brazil of the player's present. The player must correctly answer a series of questions about Afro-Brazilian and Indigenous histories to suc-ceed. Projects such as these use an Afrofuturist perspective to construct a future that is not defined by the requirements of digital capitalism but which is predicated on a dialogue with the histories of Black and Indigenous populations typically repressed by elitist narratives that have connected Brazilian nationhood to white-ness since the birth of the republic at the end of the nineteenth century.

Amidst this boom, there has been an increasing number of calls for people of Afro-Brazilian and Indigenous descent to be represented not only within the fic-tional worlds of video games but also within the teams of designers who produce them. Social enterprises like Contos de Ifá, which is based in the outskirts of the city of Olinda, teach video game design as a form of critical digital literacy. Projects such as these are part of a broader attempt on the part of activists to redefine the goals of digital inclusion to encompass not only access to digital tech-nologies and networks but also involvement in the development of software and hardware systems.[3] This is the aim, for instance, of the organisation PretaLab, set up by Bahia (2020) to "democratize access to the production of technologies" with a particular focus on the inclusion of Black women. The use of video game cre-ation as digital literacy training and as a pathway to this expanded definition of digital inclusion is not confined to Brazil. Brooks and Pollock organised an Afrofuturism-themed game jam at California State University in which, working with a team of game designers and artists, a group of students created interactive games that "embrace cruel truths" about Black histories while "amplifying and developing better futures" (Brooks 2018, 101). In the first such event, which was held in 2017 as part of the Minority Reports 2054 Game Jam, Brooks and Pollock (2018, 110) encouraged students from "marginalized working-class communities to reimagine their social, media and digital spaces into the year 2054 [in order to] highlight the 'minority reports' of future visions too often ignored". The aim of the game jams was to develop the "imagined affordances" of digital technologies, which Brooks describes (referencing Gina Neff and Peter Nagy) as "imagined uses, values, and expectations" that go against the grain of the intentions of "white male engineers" (Brooks 2018, 103).

Projects such as Contos de Ifá and the Afrofuturist Game Jam emphasise the need to both improve the visibility of non-white identities in video games and develop new affordances within the human–computer interfaces that constitute gameplay and that reflect predominantly non-white experiences. This dual approach reflects a tension that Alexander Galloway argues is inherent to video games criticism. At the levels of narrative, characterisation, and imagery, video games often invite allegorical readings. Galloway uses the example of turn-based strategy games such as *Civilization*, developed by Sid Meier and first released in 1991, in which players must capture territories and control populations, making it a clear allegory for colonisation. (In 1994, Meier released a game actually called

*Colonization*.) But in order to fully understand the specificities of video games, Galloway argues, the critic must "interpret its algorithm" (2006, 90). For video games are "cybernetic software systems" (2006, 5) that "train the gamer to be close to the machine, ( … ) to understand interfaces, to be familiar with simulated worlds" (2006, 70–71). Playing a video game means meshing the body's sensori-motor reactions to its algorithms and confronting, at this intimate level, the logic of informatics that is at the heart of power in the digital age. Rather than simply represent the power dynamics of informational capitalism, these dynamics become "*coterminous with the entire game*" (2006, 92). While video games such as those developed by Sid Meier are allegories of colonialism, through the way they connect the body of the player to the logic of the algorithm, "video games are allegories for our contemporary life under … continuous informatic control" (2006, 106).

When analysing specific games, there is often a tension between criticism focused on issues of representation and criticism focused at the level of code. In *Civilization*, this manifests itself in a tension between two treatments of race. At the level of representation, the game reproduces racial logics through its thematisa-tion of expansionism, a historical dynamic that is inextricable from colonialism and slavery, and through a classificatory logic that seeks to separate humanity into dif-ferent types. While, in these ways, the construction of identity within the game reflects "offline racial typing", through the processes of gameplay the player con-fronts "a specifically informatic mode of cybernetic typing: capture, transcoding, statistical analysis, quantitative profiling (behavioral or biological), keying attributes to specific numeric variables, and so on" (Galloway 2006, 102). Often, however, there is a clash between representation and algorithm. For instance, there is a clear tension within the "Get Quizzfty" game between its progressive rhetoric and its underlying gaming logic. At one level, the game presents itself as a counter-arch-ival practice that mobilises Afro-Brazilian and Indigenous histories to inspire the creation of more equal futures. At another level, however, it reduces the complex-ity of racial identification and the histories of colonisation and slavery to a game that can be won and lost and which, with the use of player rankings, serves as a pretext for entering into individualised competition with other players. It could be argued that "Get Quizzfty" carries out a "gamification" of race, a strategy that has become a key tool of corporate power in digital capitalism. As Rey (2014) points out, games are used by businesses to sell attention to advertisers and as a cover for surveillance and data extraction.

Gaming cultures in Brazil provide an important case study for analysing the con-nection between video games and racialisation, both owing to the visibility of "algorithmic racism" in the country and its deeply rooted cultures of resistance to the specific forms that racism takes in the digital age. Brazilian critic Tarcízio Silva (2020) uses this term to describe the forms of racial inequality that are embedded within the software systems of a society that is increasingly networked, from facial recognition systems to search engines, and argues that it is particularly acute in Brazil. This is due, on the one hand, to the conjunction of high rates of smart-phone ownership with low levels of digital literacy and, on the other hand, to a political climate under the far-right president Bolsonaro that has served to normal-ise racist discourse. The failure or lack of trust in State institutions has paved the

way for a more complete embrace of digital platforms than elsewhere. The Meta-owned messaging service WhatsApp has become not just a platform for social communication but also an essential avenue for the provision of State support (see Waldron 2021). Similarly, while facial-recognition technologies have faced increasing criticism for inaccuracy and racial bias,[4] they have maintained popularity in Brazil on both ends of the political spectrum. Since coming to power in 2019, the Bolsonaro government has increased investment in facial-recognition technologies as part of its tough stance on crime, while the Left has seen automated systems as a way of bypassing the agency of a corrupt police force (see Nunes 2021). Meanwhile, despite the systematic attack on social enterprises by the Bolsonaro regime, the country has seen the emergence of organisations and strategies aimed at overcoming algorithmic racism, such as the already-mentioned PretaLab and Contos de Ifá. These inherit the spirit of the media activist movements that were nurtured by the digital inclusion programmes sponsored by the Lula administrations (2003–2011), which became a model for approaches to free software and open knowledge among policy-makers in Europe and North America (see Bria 2022).

This article is structured around the analysis of two games that address algorithmic racism at the levels of narrative, characterisation, and algorithmic structures. Although they are infused with the same anti-racist spirit as the Contos de Ifá project and the Sue the Real games studio, the priorities of both are clearly more commercial in nature. The first is the successful *Dandara*, which was first released in 2018, and the second is *Mandinga*, an independent game released in 2021 that balances commercial appeal with an explicitly educational agenda. Through a focus on the connection between representation and code in treatments of race in video games from Brazil, I am contributing to two critical conversations. The first is the study of Latin American video-game production, which, despite being an extremely active area of inter-disciplinary research in Brazil and elsewhere, is still a nascent field in Anglophone Latin Americanist scholarship. I share, for instance, Penix-Tadsen's (2016) focus on intersections between cultural representation and the specificities of the medium. Secondly, the article seeks to intervene into debates about the intertwined histories of race and digital technologies that have focused primarily on European and North American contexts (see Noble 2018) despite Brazil's vast Black population (97 million according to the latest census from 2010, more than half of the country's population) and its protagonism in digital inclusion initiatives. An analysis of race in video games from Brazil, I argue, reveals both the specific affordances of video games and the limitations of their use in the fight against algorithmic racism.

## Digitofagia in *Dandara*

*Dandara* is one of the most commercially successful video games ever to have been produced in Brazil. Released in 2018 by Raw Fury, *Dandara* was created by Belo-Horizonte-based indie developers Long Hat House and made available on all platforms, including Android, PlayStation 4, Nintendo Switch, iOS, and Microsoft

Windows.[5] The game has many of the hallmarks of the genre known as Metroidvania (a portmanteau of two games from which it borrows its gameplay premises: *Metroid* and *Castlevania*, both first released in 1986), the main characteristics of which are two-dimensional side-scrolling action, nonlinearity (in other words, the challenges of the game can be completed in a number of different sequences), and the exploration of a complex world that is unlocked in stages as the player progresses. Owing to the complexity of the game world, players are aided in their orientation by two factors: a map that can be accessed through a "non-diegetic operator act" (Galloway 2006, 17) and a cohesive and imaginative fictional world to help players remember the differences between levels. The fictional setting and narrative that coheres the gameplay in *Dandara* combine fantasy with elements borrowed from the history of Brazilian resistance to colonial rule and authoritarianism. Dandara, the game's Black female protagonist, is based on a member of the Quilombo de Palmares, a community of escaped slaves in the seventeenth century, who has become a totemic figure of resistance. Within the game, Dandara is leading the defence against an invading army who are stealing the reserves of "salt" from her previously peaceful community. This basic premise is fleshed out slowly as the game progresses, although narrative is never its focus. As reviewer Henrique Sampaio (2018) points out, the visual design borrows heavily from Brazilian culture: "the game avoids the pure repetition of themes, ideas and aesthetics from North American, European and Japanese games, to take on a markedly Brazilian identity, which gives expression to our culture, history and customs". Elements including street signage and graffiti are taken straight from neighbourhoods in Belo Horizonte, home of Long Hat House.

Through these references to Brazilian history and culture, *Dandara* invites a clear allegorical interpretation. The invading army is associated with forces of authoritarianism from Brazilian history. The boss of the first level, for instance, bears the military insignia of the junta who ruled Brazil from 1964 until the mid-1980s. Although, at the level of gameplay, Dandara has the capacity to fire on her enemies with a magical fireball, the elements of resistance she finds along the way are cultural in nature. An artist she encounters in the first level, the "Village of Artists", is a pixelated version of the modernist painting from 1928, *Abaporu* by Tarsila do Amaral. Another key ally in the game is referred to simply as "the poet" while Dandara encounters another artist who, surrounded by computer and music equipment, is clearly, as Sampaio argues, a stand-in for the soundtrack composer Thommaz Kauffmann. These intertextual and metatextual references point to what seems to be a high level of synchronicity between the narrative allegory in the game and its algorithmic structures. *Abaporu*, which means "cannibal" in the Tupi language, became one of the iconic images of the anthropophagic or cannibalist movement of the 1920s. The same year that Tarsila do Amaral painted *Abaporu*, Oswald de Andrade published his "Manifesto Antropófago" (Anthropophagic Manifesto) which positions, and appropriates, the figure of the Indigenous cannibal as the embodiment of resistance to colonialism and a symbol of Brazilian national identity. Cannibalism serves as a metaphor for an elite-led anti-colonial project that aims to selectively and critically absorb cultural products and technologies from abroad. Andrade proposes that European and North American cultures should

neither be rejected outright nor slavishly imitated but "devoured" for the purposes of elaborating an autonomous national project.

By placing an avatar of one of the game designers alongside the image of *Abaporu*, the Long Hat House developers are positioning their practice as a digital corollary of cultural anthropophagy (while unwittingly drawing attention to the fact that, like the elite artists of the *modernismo* movement, they too are appropriating the symbols of Indigenous and Afro-Brazilian cultures, whether for artistic or commercial gains). The objects being devoured in *Dandara* are the conventions of the Metroidvania genre. The main innovation in *Dandara*'s gameplay is the manner in which the protagonist moves around the screen. Rather than walk, run, or jump along the screen, Dandara warps from white surface to white surface in apparent defiance of gravity. The effect can be disorientating as the gameplay perspective rotates with Dandara's leaps, and the player has to keep looking at the map to know which way to go. As reviewer Prescott (2018) puts it, "When the protagonist warps from one white surface to another, the camera often re-orients: you're meant to feel dizzy, poorly oriented, confused". There is clearly an intended parallel between the game's innovative focus on a Black female protagonist and the protagonist's original style of movement. If some games have been criticised for their "ludo-narrative dissonance", defined by Hocking (2007) as a clash between the style of gameplay and the narrative, *Dandara* has been praised for its alignment of gameplay and rhetorical message. As the Black Girl Gaming (2018) blog puts it, "*Dandara* ( … ) uses everything it can, its form, control scheme, environment, and outside context to paint a clear view of the concepts it wants to deal with". The term "Digitofagia", which originated in a festival of that name that took place in 2004, refers to the practice of tactical media activism in the context of Brazil. As Rosas and Vasconcelos (2006, 9) put it in their preface to the edited volume based on the event, the neologism "digitofagia" was needed to refer to the encounter between the anthropophagy tradition in Brazil and the digital culture practices of "pirating, the strategies of street sellers, 'gambiarra' [a Brazilian term for improvisatory work-arounds], [and] the indiscriminate and illegal practice of spontaneous sampling and remixing". Moreover, evoking the figure of the cannibal asserted the language of race at a time when the internet was being celebrated as a "colorblind" space (Nakamura 2008, 4). The implication behind the visual citing of *Abaporu* is that *Dandara*, with its appropriation of Metroidvania mechanics and its use of a Black protagonist in a still predominantly white gaming culture, belongs to this tradition.

However, considering the international success of the game and the fact that few reviewers picked up on the political allegory, it is important to ask whether the game goes far enough in its critique of power.[6] While taking aim within its narrative at the Brazilian authoritarianism of the twentieth century, is *Dandara* in fact complicit with a new form of power, specific to the digital age, which Shoshana Zuboff terms "instrumentarianism"? While the forms of disciplinary power that dominated the twentieth century, and were taken to an extreme in authoritarianism, function through the formation of disciplined individuals, instrumentarian power focuses on shaping actions and the affects and emotions that provide the parameters for actions. The "engineering of souls" is replaced by the

"engineering of behaviour" (Zuboff 2019, 376). While the authoritarianism represented within the game by the level-one boss Augustus aimed to form individual subjects in the name of a vision of nationhood that was indebted to neoliberal imperatives, Christianity, and white supremacy, "instrumentarian power reduced human experience to measurable observable behaviour while remaining steadfastly indifferent to the meaning of that experience" (Zuboff 2019, 376–377). A number of critics have identified the central role played by video games in the functioning of power in digital capitalism. Nick Dyer-Witheford and Greig de Peuter (2009, xxix), for instance, argue that video games are "media constitutive of twenty-first-century global hypercapitalism", since they "crystallize in a paradigmatic way its constitution and its conflicts". Computer game interfaces, they argue, "are not just hardware but techno-social assemblages that configure machinic subjectivities" (Dyer-Witheford and de Peuter 2009, xxxi).

*Dandara*'s place within the "techno-social assemblages" described by Dyer-Witherford and de Peuter is clear. Long Hat House used the Unity 5 game engine for the infrastructure of their creation. Game engines are sets of software tools for the creation and distribution of video games widely used by developers so that they do not have to start from scratch with each new game. Unity 5 has been particularly successful owing to, as Nicoll and Keogh (2019, 3) explain, an "accessible editing interface, flexible licensing structure, and modular toolset" as well as its openness to use in conjunction with other software systems. The vast majority of independent games studios in Brazil and elsewhere use Unity 5, including the producers of every game discussed in this article. The sheer prevalence of its use among the developers of innovative and politically progressive games is evidence of the truth of Unity 5's claim to be "democratising game development" and "empowering game developers".[7] With the game engine doing the heavy lifting of "'low level' computational tasks such as rendering, physics, and artificial intelligence", developers are free to focus their resources on "'higher level' aspects of the design process" (Nicoll and Keogh 2019, 10).

Critics, however, have argued that game engines have caused a homogenisation of production, since, despite surface differences, games that use the same engine often have a similar feel. The affordances of particular platforms control aesthetic choices by making them the default or most accessible options while eroding the grassroots creativity, which combined aesthetics with coding, that was the motor of the industry before the 1990s. Most crucially, game engines such as Unity 5 bind games into what Nieborg and Poell (2018) describe as the "platformization of cultural production". The main mechanism for this platformisation is Unity Technologies's open licensing structure. While developers have to pay a monthly subscription fee for a "Pro" licence, which includes technical support and analytics, there is also the option of a "Personal" licence that provides access to core software in exchange for their data. Users only pay royalties to Unity if revenues on a game exceed US$100,000. Unity fits neatly into Srnicek's (2017) concept of "platform capitalism" in which data become "the raw material that must be extracted, and the activities of users [become] the natural source of this raw material", while quasi-monopolistic platforms such as Unity are the key "extractive apparatus". Although Long Hat House is using the "Pro" licensing model for

*Dandara*, by using Unity it is still bound in with a business model that systematic-ally monitors user activities enabling it to shape behaviour in a more agile way.

Furthermore, *Dandara*'s use of Unity software renders the game's positioning of "digitofagia" as a strategy of resistance somewhat ironic. There is nothing more cannibalistic than the Unity 5 game engine in its successful absorption of the cre-ativity of its users. In a sense, this is not new since, as Nicoll and Keogh (2019, 32) point out, "[a]s a medium, videogames are a product of an ongoing exchange between informal and formal processes of production and consumption, including hacking, pirating, remixing, and hobbyist programming". Unity embraces this his-tory by creating a space for "informal" activity within its business model rather than on its fringes. Subscribers can access the Unity Asset Store, which functions as a marketplace in which the community of users can buy and sell user-generated plugins and modifications. Some user-developed software has even been incorpo-rated into the game engine's core toolkit that appears as a default option for sub-scribers. While the strategy of cultural cannibalism represented a threat to an authoritarian regime attempting to enforce its vision of a modern nation through disciplinary strategies, it is far more in keeping with instrumentarian power, which thrives in a context in which the boundaries between individuals and identities are continually being eroded and reconstructed. Cheney-Lippold (2011, 17) uses the term "cybernetic characterization" to refer to the feedback loop, which is central to platform capitalism, between the monitoring of online user behaviour and the production of identity categories, including racial types, to fit that behaviour. The resulting "algorithmic identities" are not fixed to a static ideological ideal but are constantly modulating in response to new inputs. In this respect, they echo the fig-ure of de Andrade's cannibal who, through continual digestion of outside influen-ces, was in a constant state of metamorphosis.

It is the tension between Dandara's narrative and algorithmic structures that illu-minates how the game positions racialisation in the system of instrumentarian power. At the level of the narrative, the player is engaged in a heroic battle of resistance against the powers of authoritarianism while, at the level of their entanglement with the game's algorithms, the game is interpolating users into the digital attention economy at an embodied affective level. The narrative functions as a smoke screen for the true power dynamics at play within the game. However, this is not an instance of ludo-narrative dissonance. Rather, it is confronting play-ers with the nature of power in contemporary Brazil. The Bolsonaro regime com-bines the rhetoric and some of the political strategies of authoritarianism with an intention to incorporate Brazilian society into the digital economy as much as pos-sible. Richard Kemeny (2020) uses the term "techno-authoritarianism" to describe the government's strategy of data collection. In 2019, for instance, Bolsonaro signed a decree that forced all federal organisations to share the data they held about Brazilian citizens, including health records and biometric information, with a new meta-database called the *Cadastro Base do Cidadão*. Furthermore, the dramatic polarisation of society that brought Bolsonaro to power in the first place was driven, in part, by the manipulation of opinion through the sharing of misinforma-tion on social media platforms such as WhatsApp and Facebook. Cesarino (2021) has identified platformisation as a crucial mechanism in the production of

"influenceable subjects" in Brazil. One key symptom of this system is what she describes as "figure-ground reversals" in which "some of the dichotomies that organise our cognition and society are being rearranged" (Cesarino 2021). This is most clearly the case in the relationship between algorithmic systems and their users. Rather than functioning as the "environments" for the actions of users, users are increasingly becoming environments for the agency of algorithms. The relationship between narrative and code in *Dandara* enacts this reversal as the player flips from being an orchestrator of a resistance movement to becoming a series of data points for the monitoring algorithms embedded within Unity software.

The key critical value of *Dandara*, therefore, is not the fact that it is helping to normalise the use of Black protagonists in popular video games or that it exposes players to Brazil's Black histories, although these strategies are both very important. Rather, its critical gesture resides in the tension it exhibits between its narrative and algorithmic structures which confronts the player with two systems of power and two racial logics. The narrative of heroic Black resistance to authoritarianism evokes the celebration of Black identities, and the logic of identity politics that it mobilises, which is so prominent within contemporary anti-racist movements in Brazil, partly as a reaction to the country's historical erasure of Blackness as a valid identity position in favour of an emphasis on *mestiçagem*. The second is the cybernetic systems of identification that governs the logic of advertising and search algorithms in a platform economy in which race is one of a range of interlocking labels used to categorise user activity which morph in response to changing data patterns. The "dissonance" between these two systems constitutes the nature of racial politics in times of digital capitalism.

## The violence of algorithmic racism in *Mandinga*

While in *Dandara* the pleasures of gameplay take precedence over cultural context, making it perfectly possible to play with no awareness of its references to slavery, Brazil's Black histories occupy a more central role in *Mandinga*. Released through the gaming platform Steam in 2021, *Mandinga: Um Conto de Banzo* is a turn-based strategy game that its developers Uruca Game Studio describe as "an RPG in the style of the classic Japanese games". The game is set in 1826 when Brazil "was a paradise full of natural beauty but also in the grip of injustice, violence and oppression". Although the game is single-player, gameplay is divided between two protagonists: Obadelê, a Iorubá "capoeira warrior" working in slavery on a sugar plantation, and Akil, an enslaved Muslim who, because he is literate, enjoys privileges that include access to his own private sleeping quarters. An introductory section of *Mandinga* sketches out the game's narrative premise while giving the player the opportunity to get to grips with the interface. The player operates from the perspective of each of the protagonists in turn, experiencing a typical day in their lives and learning about their backstories. Akil is sent by the plantation's overseer, Senhor Gaspar, into the village to sell vegetables. At the end of the day, he takes a cut and saves the money in the hope of one day being able to buy his freedom.

Obadelê, meanwhile, spends the day loading sugar cane into a cart and narrowly avoiding a beating at the hands of the foremen.

The double perspective set up in the introduction is in keeping with the game's central educational agenda, which is announced through a series of intertitles that appear before gameplay commences. "Most people mistakenly think that black people forcibly coming from Africa were equals. That they had the same origins and culture", the player is told. "This is far from the truth. And the story about to be told is just one, amongst many, which could have happened at the time". The premise of *Mandinga* is to confront players with the cultural differences, linguistic barriers, and social hierarchies that existed within the enslaved population of Brazil during the nineteenth century not just through the game's narrative but also through what Ian Bogost (2007, 5) describes as "procedural rhetoric". The power specific to political video games, Bogost argues, is their potential to expose and examine political systems and ideologies not just at the level of narrative and images but also at the level of the processes that drive them. In the case of *Mandinga*, the game stages the heterogeneity of the enslaved population through its fragmented gameplay. While the introductory section is used to provide the backstory to both central characters, it is also the moment when the player is confronted by each of the characters's distinct procedural affordances and constraints. For example, Akil can walk through the front gate of the farm without hindrance, but if Obadelê does the same, he is either threatened or killed. Player agency is suspended temporarily in the case of both characters but for different reasons. On the way back to the farm from the market, Akil dismounts from his donkey to pray. While working in the sugar cane fields, Obadelê stands in paralysed horror as he is approached by one of the cruel foremen. If Akil can only walk at a stately pace, Obadelê moves at a run. These differences are exacerbated once the gameplay properly starts. At the end of the introduction, Akil and Obadelê, although initially wary of each other, are compelled to join forces. When Obadelê tries to stop one of the foremen from raping his cousin Ayomide, he is caught and beaten. Akil stumbles on the horrific scene, grabs the foreman's gun and shoots him dead. Both then flee the farm together. In the ensuing battles against a series of foes, including wild animals and soldiers, Akil fights with his gun while Obadelê uses his capoeira skills. To be successful, the player must use the strengths and abilities of both players in combination.

With *Mandinga*, Uruca games studio are running a clear risk of trivialising the experience of slavery. Souvik Mukherjee (2016, 247) has outlined the challenges of representing a trauma so horrific that it is "impossible to depict" using standard gameplay dynamics. In the game *Playing History: The Slave Trade* (Serious Games.net, 2014), for instance, players act as the steward on a slave-ship and at one stage must stack enslaved African men and women into the hold as part of a mini-game that some critics labelled "slave *Tetris*" (Mukherjee 2016, 247). This is an extreme example of the dangers of reproducing moments of history in a video game, which, as Galloway (2006, 10) points out, "can only ever be a reductive exercise of capture and transcoding". It could be argued that this is strikingly the case in *Mandiga*'s use of a role-playing format that reduces identities and human experiences to "types" with fixed properties and abilities that can be assessed

against a set of numerical metrics. Furthermore, being made to play as an enslaved African in *Mandinga* could be described as what Leonard (2004, 1) has called "high tech blackface", which gives players the opportunity to "try on the Other". There are certainly moments in the game when this accusation would be well founded. The freedom of the player to manoeuvre the Obadelê avatar could easily be seen as disrespectful to those who spent their lives in enforced labour.

However, it could also be argued that *Mandinga* makes an important critical point in the parallel it establishes between the procedural system of gameplay and racialisation. In her account of what she describes as "Ludo-Orientalism" in the video games industry, Fickle (2020, 7) emphasises "an important and overlooked symmetry between the *racial* logic that undergirds spatialized systems of oppression and exploitation and the *ludic* logic crucial to securing our perception of games as games". A key example for Fickle is the augmented reality game *Pokémon Go*, which was released in 2016. Players use GPS on their mobile phones to track down virtual creatures called Pokémon, which appear as if they existed in "real-world" locations. What is interesting for Fickle is how the game overlays its ludic logic on the social rules that govern urban space. So, for example, to train or battle a Pokémon and make progress in the game world, players are often forced to infringe the implicit regulations around space. This could include a player from a "Black" neighbourhood being forced by the logic of gameplay to put themselves in danger by entering a "white" neighbourhood. These moments of tension between the two systems, Fickle argues, reveal an important commonality. Like *Pokémon Go*, "racialization itself might be understood as an analogously location-based technology that has been seamlessly automated into the interface of everyday life" (Fickle 2020, 7).

The parallel between gameplay and the spatialised system of racialisation is a central feature of *Mandinga*'s procedural rhetoric. This is achieved primarily through the contrasting affordances of the two avatars. The actions of both characters are spatially circumscribed in different ways. Obadelê's movements are kept under strict control. As Obadelê, the player is free to explore the inside of the communal sleeping quarters. But as soon as he goes out into the open, his ability to move is much more restricted. The narrative in the introduction unfolds as the player is forced into the only actions left open by restrictions imposed by the plantation owners. So, when he leaves the dormitory in the morning, the only path that is not barred by a guard leads Obadelê to the plantation. Despite his privileges, Akil's actions are similarly restricted. On his way to the market, the Akil avatar can take routes that are inaccessible to Obadelê. However, the only option is to return once more to the plantation compound. *Mandinga*'s retro gameplay dynamics mean that the player is made acutely aware of their subjection to the game's algorithmic procedures. In games like *Dandara*, the gameplay dynamics quickly become intuitive and integrated into the player's sensorimotor system, leaving little space for contemplation or critique. The more integrated they become, the greater the illusion of player freedom. Although *Mandinga*'s controls, rules, and objectives are easy to grasp, the slow pace and lack of time pressure mean that this integration never happens to the same degree. The player often finds themself in what Galloway (2006, 10) describes as an "ambience state" when

the game itself comes to a standstill, and the animations fall into a holding pattern as the machines "hover[s] in a state of pure process". For example, when the Obadelê avatar stops on his way to the fields, he bounces up and down in a rhythmical fashion until he is made to move again.

It is in these moments of "non-play", Galloway (2006, 18) argues, that the "operator is in fact moving his or her experience closer to the actual rhythms of the machine". This dynamic reaches its culmination in *Mandinga* when the player must submit to the lengthy process of "levelling up" before they can proceed to the next stage of the game. As a result, the player is made acutely aware of being in "a state of submission at the hands of the desire of the machine" (Galloway 2006, 18). The effect this has in *Mandinga* is to bring the experience of enslavement described at a narrative level into alignment with a submission to the algorithm in the gameplay logic. In this sense, beyond its explicit educational agenda, the most effective act of critique carried out by *Mandinga* is to confront the player directly with algorithmic racism, the embedding of racial bias, and racialised logic within software systems. Players of *Mandinga* encounter this form of racism at the intractable level of algorithmic procedures. In this, *Mandinga* echoes *Dandara* in its staging of the experience of being an "environment" for the agency of algorithms.

It is also significant that *Mandinga* narrates this story about slavery and racism in Brazil using a genre of game that is itself heavily racialised. In Uruca Studio's marketing text, *Mandinga* is described as a Japanese Role-Playing Game (JRPG), a term for a genre that is often defined in opposition to the Western Role-Playing Game (WRPG). The main difference between the two is that players of JRPGs (such as the *Final Fantasy* series) have "scripted" and "predestined" characters and stories, while WRPGs give players more freedom to both customise avatars and decide on the trajectory of the story (van Ommen 2018, 29). The result is a circumscribed, linear narrative on the one hand and a nonlinear narrative with multiple possible branches on the other. This distinction between the two genres relies on stereotypical assumptions about Japanese society being more rule-bound and codified than its "Western" counterparts. JRPGs commodify a racial identity as a style of play and an attitude toward procedures and constraints. As Patterson (2020, 45) puts it, in the video-game industry race not only is a matter of representation but also "dwells within play itself". Furthermore, this staging of race within the processes of play is highlighted at an aesthetic level. Alongside their approach to characterisation and narrative, JRPGs are distinguished by their visual design. While WRPGs use a more realistic or style, JRPGs employ the nostalgic retro aesthetic associated with games of the 1990s or imbue their avatars with the exaggerated features and proportions of anime characters.

The use of the generic properties of the JRPG genre in *Mandinga* complexifies its treatment of race. Its representation of enslaved Africans of the first half of the nineteenth century is filtered through an emulation of a postwar Japanese cultural imaginary. The game uses two visual styles. The static images that accompany the introductions to different stages or the provision of non-diegetic gameplay information employ a realistic if somewhat heightened and exaggerated style. The main game, however, uses a pixelated aesthetic that is reminiscent of the Nintendo games of the 1990s. The design of both the protagonists and non-player characters

is heavily indebted to the "cute" style used for Mario and Luigi in the early instalments of the Super Mario series. It could be argued that this exaggerates the problems identified by Mukherjee. Not only is the player put in the position of participating in an act of "high tech blackface" but they are made to do so within a gameplay dynamic that itself reproduces racist assumptions about Japanese culture.

However, the way that *Mandinga* frames a game about slavery within a style of gameplay that is itself racialised further emphasises the parallels between racial and ludic logics. Patterson argues that racial signs take on specific "playful" meanings within games. Presented "always within quotation marks", representations of race in video games "operate through ironic untruths that rely upon the player's 'playful attitude' towards the game" (Patterson 2020, 47). This process, he argues, does not strip race of its real-world significance as a framework for mediating social relations or deny that representations of race in video games reproduce wider social hierarchies. Rather, it exposes gamers to how the system of power in the global digital economy "recognizes race not as history or even culture but as tactics and strategies for either winning or disrupting the order of things" (Patterson 2020, 48). In other words, games draw attention to the ludic nature of the ways in which both those in power and those contesting existing power structures deploy the language of race. Furthermore, the context of the game encourages players to experiment with the language and forms of race and create new configurations. The "Japanese" aesthetics of JRPGs "facilitate the meanings of race as a form of play, where gameworlds not only stage forms of racialised play but also compel players to re-play, to play differently, to experiment with various racialised forms within games that appear ideologically neutral even when we recognize the historical violence behind their images" (Patterson 2020, 53). The big difference between the games discussed by Patterson, such as *Final Fantasy VII*, and *Mandinga* is that the latter does not present itself as "ideologically neutral" and nor does it attempt to hide "the historical violence behind its images". Rather, it places the violence of slavery in the foreground of the narrative and the gameplay. This has the effect of presenting algorithmic racism, which often goes unnoticed, as an act of violence while making its point about race as a form of play rather more forcefully than more commercial games.

## Conclusion

Both video games analysed in this article use the specific affordances of the medium to construct powerful critiques about racism in the digital age in Brazil. Both do so through either tensions or corollaries between narrative and algorithmic structures. *Dandara* places a story of heroic Black resistance to authoritarianism in the context of the new forms of "instrumentarian" power of the digital age. Through both its procedural logic and its use of the JRPG genre, *Mandinga* exposes players to the violence of algorithmic racism. Both, however, do so by employing existing albeit "remixed" forms of commercial video-games industry. Despite the fact that *Dandara* positions itself as an act of "digitofagia", the act of creative appropriation carried out by both games follows the model of "deep remixability"

encouraged by the game engine Unity 5. Both, in different ways, critique the hidden racism the algorithmic systems that govern the platform economy, while seeking compatibility with or inclusion within those systems. They share this ambiguity with the rhetoric surrounding the widening of participation in the esports industry in Brazil. Organisations such as PerifaGamer and AfroGames highlight inequalities in the industry and the prevalence of racism and misogyny in gamer communities while fundamentally seeking inclusion within the existing industry and playing the existing games.

In the process, players of *Dandara* and *Mandinga*, as well as esports gamers from disadvantaged communities, are put in the position of, in the words of Nakamura (2017, 247), "embodying liberal values: self-reliance, unfettered competition in unregulated space, in short, a neoliberal fantasy of the entrepreneurial self". Gaming "exploits minority gamers' fierce attachment to the medium and sutures it to a notion of social justice that can only be earned, not given" (Nakamura 2017, 247). The "strict procedurality" of video games creates the illusion that everybody is playing on a level playing field, which belies the hidden inequalities of uneven access to hardware, network access, and practice time. This myth of fairness creates an illusory compensation for and a distraction from real-world social inequalities. A possible solution to this is offered by the social projects discussed in the introduction, which, although only at early stages, offer a model of how to do things differently. In contrast to the desire for inclusion within dominant existing systems, Contos de Ifá aims to change the video games industry by increasing diversity among software creators. Its collaborative design approach is a tool for the provision of a form of digital literacy that supports social inclusion, while the games they produce embody the potential for not only a more inclusive video games industry but also a strategy for challenging algorithmic racism.

## Disclosure statement

No potential conflict of interest was reported by the author(s).

## Notes

1. Miranda and Queiroga (2021) point out that corporate investors include TikTok, the neobank Next, and electronics chain Casas Bahia.
2. Miranda and Queiroga (2021) point out that only 18.3% of Brazil's roughly 153 million gamers play through a PC, while 70.9% play *Free Fire*.
3. "Digital inclusion" was a key priority of the first Lula administration, championed by the then Minister of Culture Gilberto Gil. A workshop held in collaboration between the University of Bristol and the Universidade de Campinas in 2021 set out to redefine this term in a techno-political context in which inclusion in digital networks can often lead to further exclusion of marginalised populations through exposure to misinformation and covert data gathering.
4. Buolamwini and Gebru (2018, 1) demonstrate how facial recognition algorithms "trained with biased data have resulted in algorithmic discrimination".

5.  Video Game Insights estimates that by January 2022 between 20,300 and 48,720 units of *Dandara* had been sold, grossing an estimated US$182k–439k. https://vginsights.com/game/612390.
6.  Consumer reviews and comments by international players differ markedly from those by Brazilian players who are much keener to identify specific cultural references.
7.  "Unity Drives the Democratization of Development in 2016 with Eight Unite Conferences Globally", Unity. Available here: https://unity.com/our-company/newsroom/unity-drives-democratization-development-2016-eight-unite-conferences-globally.

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**Edward King** is a Professor of Latin American Studies at the University of Bristol. His research explores contemporary cultures of connectivity, with a particular focus on the use of speculative fiction and multi-media texts to expose and contest the shifting power dynamics of the digital age. His current project examines connections between digital futurisms and changing conceptions of race in Brazil.