Having skin in the game: How players purchase representation in games

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Abstract

Microtransactions are a relatively new feature of video game software involving the purchase of ingame items, often using real money. Players may use these transactions to purchase in-game advantages, or cosmetic features such as 'skins', which change the way a player's avatar looks without influencing gameplay mechanics. *Skins* may be an opportunity for developers to offer – and players to purchase – alternative demographic appearances. In this article we examine some of the potential costs associated with skins beyond their price tag, especially those felt by players of color, given a normative – free – white default. While previous research has looked at player identity, representation in gaming media and players' purchasing practices individually, few scholars have looked at the intersection between all three. We analyze this intersection within the practices of selling and purchasing skins in games. We distributed a survey through social media and to gaming communities online and analyzed 158 responses. We identify quantitative differences in responses of participants of color and White participants, such as participants of color spending more on average than white participants on skins in the games they play. We discuss qualitative themes we describe as *quasi-acceptance and privileged allyship*, that build on previous literature about how players of color interact with – and may feel resigned about – representation in games.



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Keywords

Microtransactions, representation in games, diversity in gaming, quasi-acceptance, privileged allyship

Introduction

The video game industry in the United States generated 43.4 billion dollars in revenue in 2018, according to a report by the Entertainment Software Association (ESA, 2018). In the same report, the ESA reports 49% of players made at least one microtransaction, a purchase of some sort of auxiliary content made after the initial acquisition of a product. Microtransactions have become an important revenue generator for the video game industry, particularly in so-called 'free-to-play' games – those that cost nothing to acquire and rely exclusively on microtransactions or ads for revenue. Developers may use microtransactions to offer practical in-game items such as weapons and power-ups, or cosmetic features such as various visual interface options (e.g. backgrounds or profile icons) and *skins* that change the visual appearance of player characters. Depending on the game, these items may be purchased directly or through some form of 'loot box' that grants a chance at a range of items for a fixed price. These purchases are made with either real-world money or with an in-game currency that must itself either be purchased with real-world money or potentially acquired more slowly through gameplay.

The term *skin* in the context of digital games derives from the application of skin-like surface texture and material detail to three-dimensional character models. It has been a part of PC gaming for decades but has become more common across all platforms with the prevalence of micro-transactions and the market for cosmetic features in contemporary games. The term has evolved to describe alternate appearances for characters (mainly in multiplayer online games) that go beyond simple surface material. Skins may represent simple color palette changes, clothing variations or a complete visual overhaul that can, for example, flag a variety of cultures or ethnicities (Figure 1 and 2). Skins tend to offer no in-game advantage, yet some players are willing to spend upwards of thousands of dollars to collect them (Tassi, 2018).

Skins alter the aesthetic experience of gameplay by allowing players to change the performative characteristics of the characters they play. In this case, rather than a measure of productive output, we are using 'performative' to refer to the behavioral, verbal or visual cues we recognize as



Figure I. A sample of 'skins' available to purchase for the character 'Karma' in Riot Games' *League of Legends*. Default appearance on the far left.



Figure 2. A sample of 'skins' available to purchase for the character 'Nidalee' in Riot Games' *League of Legends*. Default appearance on the far left.

identifying people as belonging to certain groups in the tradition of critical scholars such as Butler (1990), Sedgewick (2003), or Barad (2007).

Lisa Nakamura is an early scholar to highlight the importance of performativity in digital and online spaces through her analysis of Multi-user Dungeons (MUDs) (Nakamura, 1995, 2002). Her descriptions of players donning – or *putting on* performances of – identities other than their own is relevant to an analysis of players purchasing and applying diverse skins to their characters (Nakamura, 1995). Nakamura uses 'identity tourism' to describe a form of 'racial play' she predominantly observed in White players, characterized by taking on demographic and often stereotyped identities other than their own in textual performances (Nakamura, 1995, 2002). The current microtransaction-based skin economy where players can acquire the *visible* guise of 'other' identities for their in-game avatars and characters provides a re-embodied context for considering Nakamura's analysis.

Players are not purchasing identities, but performances of identity. They are buying embodiments, or skins, within which identity work, play or tourism may occur. We rely on Nakamura's concept of 'menu-driven identities' as well (Nakamura, 2002), as we examine how it may take on new meaning in the context of skins. Nakamura uses menu-driven identities to describe how 'interface design features [can] force reductive, often archaic means of defining race upon the user' (Nakamura 2002: 101), and too often rely on stereotypes or oversimplifications, or exclude complex or marginalized identities. Nakamura's analysis helps to foreground how interfaces that mediate and dictate available performative choices can influence how players experience gameplay, despite not necessarily being part of gameplay themselves.

Daniel Gardner is a more recent scholar who deploys Nakamura in conversation with other digital media and human-computer interaction (HCI) scholarship to examine how menus and interfaces influence our experiences with media (Gardner, 2021). He describes how many interfaces attached to games and gameplay – including those that dictate character configuration options such as skin choice or purchase – are as essential to a holistic understanding of contemporary gaming as any narrative content or mechanics (Gardner, 2021). He describes these interfaces on the periphery of gameplay as 'periludic', meaning they exist beside gameplay while still influencing it (p. 1). Gardner and Tanenbaum describe how these sorts of interfaces and the transactions they mediate 'occupy a liminal space between "game" and "not game" while dictating our experiences of games (Gardner, 2021).

In this study, we observe player feelings related to the transactions of acquiring and donning skins, rather than experiences related to gameplay or games more directly. Although the sale and selection of skins is often managed by interfaces that are part of game software, these interfaces would not generally be classified as components of gameplay and the skins purchased in these transactions do not tend to change gameplay *mechanics*. However, the interfaces that permit players to purchase and select their skins do nonetheless periludically dictate elements of *aesthetic* game content and influence how players experience gameplay. The sale of skins through micro-transactions alters how players may customize their avatars, connect with the characters they may play and interact with others in virtual game spaces. Unfortunately – though the gaming industry's customer base has diversified along axes of race, gender and socio-economic background (Duggan, 2015; Lehnert, 2015; Passmore et al., 2018) – the characters in video games still largely conform to outdated assumptions of audience demographics, usually White and male (Gardner and Tanenbaum 2018; Passmore et al., 2017; Williams et al., 2009). Diverse racial and gendered Characters or aesthetic performances are increasingly available but are still too often 'second player' choices (Chess, 2017), unlockable features or accessible only via microtransactions.

In this article, we draw on literature regarding player identity, representation in media and media consumption to address a gap in literature at the intersection of these three topics (Figure 3). We analyze 158 results of a survey that suggest players of color spend more money on skins and buy more skins than White participants. Using these survey data, we observe the complicated relationship participants of color sometimes have with representation. These participants recognize that character representation options are limited and therefore cannot dictate their choice of games to play, yet still value diverse choices in games. We analyze White participants' comparatively passive view of representation. Finally, we use these data to examine the impacts purchasable skins may have on players of color and describe how some players may need to pay more to self-represent in the games they play. While previous scholars have explored identity, representation and monetary consumption individually, how these topics intersect regarding purchasable skins in games is underexamined. We contribute a better understanding of where these areas come together within

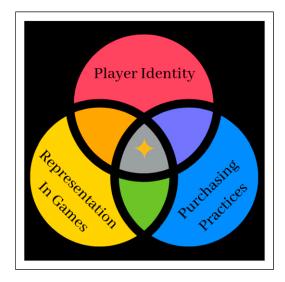


Figure 3. Our illustration of the intersection between these three literature categories – and the gap within which we position our research – represented by the star in the center (Reza et al. 2019).

facets of the complex relationships players may have with skins and purchasable representation that can help researchers and designers alike create and study these spaces and relationships in games.

Literature review

Existing literature has explored the intersections of player identity and racial and gendered representation in video games (e.g. Gray, 2014, 2020; Higgin, 2009; Jeroen and Martis, 2003; Kafai et al., 2010; Nakamura, 1995; Passmore et al., 2017, 2018; Shaw, 2014; Williams et al., 2009), as well as the connection between identity and purchasing practices (e.g. Gandy, 2001; Lamont and Molnar, 2001; Shankar et al., 2009; Nguyen et al. 2020). In this article, we examine phenomena related to the sale of 'skins' in games within a literature gap first described by Reza et al. at the intersection of player identity, purchasing practices and representation in (2020). Our perspective on these topics is informed by scholars such as Kishonna Gray, who highlights the complex intersectionality of people within socio-technical systems and emphasizes the importance of interdisciplinary approaches when studying the practices that influence contemporary technological realities (Gray, 2020).

Passmore et al. explore several topics related to player identity, gaming preferences, needs and emotional and contextual responsiveness in the results of an extensive survey (Passmore et al., 2018). They find players and developers across racial and ethnic demographics tend to acknowledge more diversity is needed for in-game character representation, and they describe how inequality in games can lead to negative psycho-social consequences for players of color (Passmore et al., 2018). Passmore et al. note an inconsistency between this broad desire for diverse representation and available representation in games. They argue there is 'a social and moral demand' for more diverse racial and ethnic in-game representation and discuss implications for market demand relative to their observations on these findings (Passmore et al., 2018: 10). They and others have stressed the increasing buying power among players of color and the increase in people of color who identify as gamers, (Duggan, 2015; Lehnert, 2015; Passmore et al., 2017, 2018; Passmore and Mandryk, 2018). Passmore et al. argue the games industry has not adequately responded to this clear market demand, creating a growing disparity between those who play video games - their representation and demands - and the characters who tend to be represented in games. Our study highlights how indelicate responses to these increased market demands may increase certain negative outcomes for players of color, even when attempting to address the issue of inadequate representation.

Although Passmore et al. (2018) and Passmore and Mandryk (Passmore and Mandryk, 2018) do not examine microtransactions or skin purchasing, our methodology and framing are closely aligned with their research. Passmore et al. explore players' attitudes toward representation and diversity in games in a broad sense (Passmore et al., 2018), while Passmore and Mandryk more specifically examine the role of customization and skin tone (Passmore and Mandryk, 2018). Our paper similarly focuses on player attitudes and outlooks on diversity and representation, with a focus on skins as purchasable representation.

Performance in the replication or exploration of identities

Several scholars have addressed the role of performance in games and virtual worlds (e.g. Nakamura, 1995; Shaw, 2014; Shaw and Friesem, 2016; Gardner and Tanenbaum, 2018). As far back as, Sherry Turkle, 1997 was suggesting the ways that mediation – and lack of dependency on physiological constraints in digital spaces – would make identity 'markers' such as race or ethnicity, or gender more 'fluid' (Turkle, 1997), aligned with broader analyses of gender from scholars such as

Butler (1990). Other scholars have examined how players and inhabitants of virtual worlds may explore identities that diverge from that which they perform in their everyday lives, perhaps in service of exploring themselves (e.g. Hart, 2017; Boellstorff, 2008; Shapiro, 2010). More recent scholars have both supported the notion of fluidity in Turkle's early work, while addressing some of the more historically insensitive aspects of her optimism (e.g. Gandy, 2001; Kafai et al., 2010; Klastrup and Tosca, 2009; Shankar et al., 2009; Shaw, 2014).

Nakamura's analysis of how players may take on performances other than their own through textual performances is a key source in the domain of translating identity into virtual performances. The performances she observed, in the form of 'keystrokes and mouse-clicks', allowed players to participate in what she calls 'identity tourism,' or a form of 'racial play' where mostly White players performed a stereotypical 'Asianness' (Nakamura, 1995: 1, 3, 6). Her use of tourism and play highlight how these players could temporarily take on an identity without 'putting into play any bodies but the ones they [wrote] for themselves' (Nakamura, 1995: 7). That is, these players did not need to embody historical or contemporary issues, or consequences, associated with *being* these identities. Character customization systems and purchasable skins, however, provide the ability to put a body into play in to *some* extent during these sorts of performances. We position Nakamura's analysis of players donning exotic performances as a cautionary tale for skins that may provide a commodification of the same sort of exoticization.

Much of the work on performance in games and virtual spaces focuses on the identity of players, and so, the players themselves. Nakamura is an early scholar to treat digital performances themselves as the object of observation and analysis. Perhaps, in part because of the disembodied aspect of the textual performances she observed, this decentering of the player becomes useful for us as we re-embody her analysis into purchasable skins.

Kafai et al. describe a precursor to contemporary purchasable skins in the virtual world Whyville, in which users experienced issues acquiring non-White bodies (Kafai et al., 2010). Whyville is a free virtual world whose virtual currency, 'clams', can be used in a virtual marketplace to buy items from the developers or player-designers themselves, including clothing and bodies, to customize their avatars. However, Kafai et al. describe a point in time when non-White bodies were scarce and tended to be more expensive (Kafai et al., 2010). People of color needed to pay more to obtain bodies that matched their own appearances. This invoked discussions on the treatment of race in Whyville and frustrated users criticized the limited selection of non-White bodies, and the default peach-colored smiley face all new members received. Those who resisted these criticisms pointed out that players can design bodies, and as quoted by Kafai et al. (2010), one user encouraged players of color to 'design [them] for [themselves]' (Kafai et al., 2010: 50), never mind that this too cost a large amount of clams. While in *Whyville* players at least had the ability to potentially create their own skins, this is not true in most contemporary games where skins are purchased. We observe a similar dilemma to the one observed by Kafai et al., within the context of character skin purchasing in microtransactions in games at large, where purchasing non-default bodies may only be possible with actual money and players *cannot* design them for themselves.

In 'Because it just looks cool!' Klastrup and Tosca discuss the relationship of players and their ingame cosmetic choices in the popular Massively Multiplayer Online (MMO) game *World of Warcraft* (Klastrup and Tosca, 2009). Despite fashion not being the primary stated focus of the game, Klastrup and Tosca argue that it still plays an important role in player experience (Klastrup and Tosca, 2009). Though not offering as extensive an aesthetic change as skins, their focus on armor, or clothing still offers insight into how players may be motivated by aesthetic control of their in-game appearance. Although armor does have in-game functions, they examine how players use it for purely aesthetic purposes and observe even competitive players pursuing specific armors for cosmetic reasons. Klastrup and Tosca describe several ways players might choose armor because of personal preference or to influence how players may be perceived by others (Klastrup and Tosca, 2009). Their analysis highlights how players are willing to spend more time to acquire appearances that matter to them. We examine how these sorts of motivations play out in contemporary contexts of purchasable, appearance-altering skins.

Players and representation in games

Higgin (2009), Williams et al. (2009), Passmore et al. (2017) and Gardner and Tanenbaum (2018) all describe the state of representation in games. Higgin critiques the exclusion of non-European characters and narratives in MMORPGs specifically. Williams et al., Passmore et al., and Gardner and Tanenbaum all use large data sets of characters in games to empirically ground debates about poor representation in games, especially along racial and/or gendered axes. While none of these sources discuss free-to-play games or purchasable skins directly, they examine the landscape of game representation these games exist within.

Although we focus primarily on racial demographic representation in this article, perspectives on representation along other axes are still essential to our perspective. The LGBTQ Video Game Archive begun by Adrienne Shaw attempts to capture data on the representation of queer characters in all video games, since their commercial inception (Shaw and Friesem, 2016). Shaw and Friesem, writing on the creation of the LGBTQ Video Game Archive, describe some of the challenges of collecting this kind of representational information, as players may interpret the gendered or sexual performance of characters very differently (Shaw and Friesem, 2016). Gardner and Tanenbaum echo Shaw and Friesem's analysis and apply it to race, troubling attempts to quantify representation, especially by less than diverse research teams (Gardner and Tanenbaum, 2018). Shaw and Friesem and Gardner and Tanenbaum all describe how important it is to observe how embodied performances come to matter to players, alongside any accounting of the state of representation.

In her book *Gaming at the Edge: Sexuality and Gender at the Margins of Gamer Culture*, Shaw examines the views, behaviors and experiences of players in relation to the diversity of characters in games, among other gameplay factors (Shaw, 2014). She focuses mainly on women and members of queer communities and looks at how players from these marginalized groups interact with representations of their own gender and sexual identities, and when this scenario is not an option. Shaw considers the market forces at work when considering representation in games. She acknowledges that, regardless of media-type, any move toward greater, more accurate and more sensitive representation is unfortunately 'tempered by the demands of the capitalistic enterprise' and will not be quick to change unless there is substantial evidence to support an increase in revenue when the change is made (Shaw, 2014: 221).

Shaw describes the 'acceptance' of her participants of the poor state of representation in games (Shaw, 2014), or what Passmore and Mandryk later describe as a 'learned neutrality' (Passmore and Mandryk, 2018), in the face of a lack of self-representational options. Both Shaw and Passmore and Mandryk argue that players of color must adopt this position if they wish to play games at all. Both also point out much more currently underrepresented players might be willing to participate or consume games should more options become available. Shaw and some of her participants describe how '*representation was important because it indicated what might be possible*' (Shaw, 2014: 156 emphasis in original). If players do not think greater representation, Shaw also describes the importance of putting games, and their representation, 'into social context' (Shaw, 2014: 177). For our

work, it is not enough to observe how representation manifests in purchasable skins, we must examine the social and economic ecology within which their presentation, sale and purchase occurs.

In *An About Face: Diverse Representation in Games*, Passmore and Mandryk further explore the positions of players on character customization and skin tone specifically (Passmore and Mandryk, 2018). They conclude, 'Players largely wish to self-represent in games, making their ethnic identities key to their experiences. These identities inform the kinds of characters they play (or wish to play) in digital games, their needs in terms of features from these characters, and how these needs differ by ethnicity' (Passmore and Mandryk, 2018). We rely on these findings and expand their application to contexts where self-representing may come at a price.

The desire to self-represent and Nakamura's identity tourism are co-existing phenomena. As Passmore and Mandryk found, many players – *any* player – may desire to self-represent. This potential interest in self-representation directly fuels our analysis in a key finding in a way we describe in more detail below. Given the state of contemporary representation in game characters, however, Nakamura's identity tourism is a privilege that is nearly exclusive to White players, who are more likely – by default – to have the *choice* to put a body that resembles their own into play or an *other* body. Players of color who often lack the option to self-represent are not choosing to 'tour' White performances in games, they are often required to take on – or conform to – those performances if they wish to play games at all.

Gardner (2021) and Gardner and Tanenbaum (2021) describe how the representation *in* games that many scholars in this section study is not simply a characteristic of games but an *outcome* of interfaces with which players must negotiate above and beyond familiar gameplay. They describe how the choices made during character selection or creation and the limitations in these interfaces can heavily impact player experiences with gameplay and other players (Gardner, 2021; Gardner and Tanenbaum, 2021). Gardner argues that the poor representation in games and the overwhelming prevalence of White male playable characters is one way games may demand 'players conform to implicit and explicit norms in return for access to gameplay' (Gardner, 2021: 5). For Gardner, character configuration interfaces are the site where Shaw's 'acceptance' and Passmore et al.'s 'learned neutrality' occur (Gardner, 2021). Our analysis of skin purchasing and selection is aligned with Gardner's analysis of character configuration in our consideration of the choices players must make there, even before gameplay may occur.

Identity and consumption

Despite our central contribution in this article being about how different demographics report feeling about and making purchases in media, we had concerns about citing any research that might attempt to explain *why* people who self-identify as, or are labeled by, any single demographic category consume media in a way that ignores the variation that exists within any ethnic group. We tried to be careful in our citation practices, but also found very few sources that examined this intersection in media.

Shankar et al. examine how players represent their personal identities in relation to their practices of consumption (Shankar et al., 2009). They discuss how people may 'reproduce their... identit [ies]' with the purchase of material possessions that align with their social identities as consumers (Shankar et al., 2009: 80). But, Shankar et al. argue scholars often overestimate consumer agency when it comes to making independent decisions about what one consumes. Consumer choices are constrained by what the industry produces, as well as what Shankar et al. call 'narratives of so-cialization', the way people make decisions based off the influence of social institutions, including their respective social groups (Shankar et al., 2009: 76). Shankar et al. concede consumption may

still be tied to identity. However, they argue that it may be more important to consider how consumption consolidates social relations and contributes to the process of identity formation, which is informed by socialization and the desire to belong to respective social groups. That is, consumption and identity cannot be observed *only* at the transactional level, without considering the broader 'facilitation of social relations' within which they occur (Shankar et al., 2009: 90). To Shankar et al., consumption becomes an indicator of social participation, to flag social belonging in some way. How our work builds on Shankar et al.'s is complicated. The embodiments skin purchases provide are limited by game publishers and can manifest less than diverse choices. We explore how different players may or may not contend with these limitations through any social participation in games they may pursue.

Nguyen et al.'s study of racial and ethnic representation on video game covers makes a related claim about personal identity and consumption. They describe the influence that the presence or lack of diverse characters on game covers have and the role those covers may have in game consumption, even before potential players encounter gameplay. Nguyen et al. find that – although most of their research participants valued diversity on game covers regardless of race – their participants of color valued diverse racial representation significantly more than their White counterparts (Nguyen et al., 2020).

Michele Lamont and Virag Molnar evaluate how Black consumers utilize consumption as a means to gain 'social membership' (Lamont and Molnar, 2001: 32–34). Additionally, they discuss the role of consumption as a means to create collective identities in Black communities. They argue that the purchasing practices of these communities are often used to push against negative stereotypes about Black purchasing power (Lamont and Molnar, 2001). On the other hand, Oscar Gandy offers a contrasting argument that attempts to identify how racial and ethnic identities influence consumption practices risk oversimplification and the erasure of variations within ethnic groups (Gandy, 2001). While social belongingness is important and is informed by consumption, Gandy observes, similarly to Shankar et al., it is a complex process, influenced by socialization and other factors. We try to take note of the complexities of attempting to link demographic identities and consumption practices, and avoid trying to establish rigid demographically deterministic claims. We acknowledge how consumption is a complex formula shaped by what is available and an array of unique individual and social factors while noting how the experiences and values of different – sometimes demographically defined – groups of consumers may align or diverge regarding available choices.

Methods

We composed a targeted, nine-question survey comprising a mixture of closed-ended and openended questions to ask participants about their demographics and experiences with skins. Participants needed to be at least 18 years of age and actively play at least one game that involved ingame skins. We included the age requirement to avoid collecting data on minors. The survey was designed to find links between the race/ethnicity as which participants most identified, their impressions of representation in games and how much and why they purchase skins. Our recruitment goal was to find participants from various racial and ethnic backgrounds, preferably with an emphasis on those who previous research above has shown are underrepresented in games.

In the survey, we asked participants to specify their age and ethnicity, whether they play games that include the ability to purchase skins, how often they buy skins, how much they spend on skins and on what kinds and why they buy skins. We asked questions about the quantity of skins purchased and the money spent on skins as separate metrics, as skins can vary wildly in price. We also included questions about their impressions of diverse representation in games and how this affects their gaming and skin purchasing practices. Most questions were forms of multiple choice with optional free-response, with one completely open-ended question.

We distributed the survey in two waves. The first wave was through various social media platforms, such as Facebook and Instagram, as well as Discord channels for game-related communities. We disseminated the survey a second time using the same method and channels to reach those who may not have seen it, or to remind those who may have forgotten the first time. In both waves, the survey was shared by members of the research teams in their communities in California, New York, Pennsylvania and Colorado, to aim for a more geo-politically diverse sample. As our main focus was racial and ethnic diversity, we included organizations which focused on such diversity when posting on social media pages and sending out messages – such as minority student alliances and cultural groups based at the teams affiliated institutions. In this way, we hoped to maximize the diverse representation in our sample. We also made an extra effort to distribute the survey to spaces which may not be specifically people of diverse backgrounds, but which still had diverse racial and ethnic presence, such as gaming groups at affiliated universities that consisted mostly of players of color. Because our sampling relied heavily on university groups, participation was biased toward college-based communities.

We analyzed our survey results quantitatively and qualitatively. We used Google Sheets as a collaborative approach to compare and visualize each variable and relationships between them. We compared average responses to each closed-ended, multiple choice question between different demographic groups to a question. Responses were assigned a numerical value. For example, for a question such as, 'Approximately how many skins do you buy in 1 month?' numbers were applied to ranges increasing with the amount of skins purchased, with 0 used when they bought no skins, three was used for a mid-range choice of 11–15 skins, and seven assigned to the seventh and highest range of 26 or more. These simplifications allowed us to average responses and conduct t-tests through the statistical analysis program, JASP, comparing demographic groups of participants. Our qualitative analysis consisted of two passes on the open-ended responses. First, each author independently read open-ended responses, applying emergent codes to independently identified themes. Second, the authors came together to discuss, aggregate and analyze these themes in relation to our quantitative data.

Findings

We received 173 total responses. All participants who responded to their age range with 'under 18' were screened out. While having purchased skins was not a condition for inclusion, participants who indicated they had not played games where purchasable skins were available were also screened out. There were a small number of responses where most or all questions were skipped. These were omitted for a final total of 158 responses.

Survey respondents represent a variety of age groups as well as races and ethnicities. The vast majority of participants (94.3%) were between the ages of 18 and 34. This age range likely reflects a common bias toward the communities around the university campuses where the research team members were based at time of data collection. The racial/ethnic demographic that the largest group participants most closely identified as was White or Caucasian (45.2%). Participants who most closely identified as Hispanic or LatinX¹ made up 26.8%, Black or African American made up 11.5% and South or Southeast Asian made up 6.4%. 2.5% of participants identified most closely as East Asian, 1.9% as Middle Eastern or North African, 1.9% as Native Hawaiian or Pacific Islander and 3.8% as 'other' or mixed race (Figure 4).

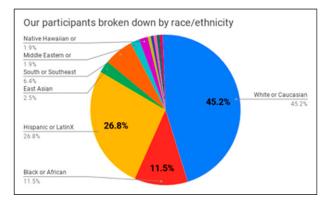


Figure 4. Percentages of survey participants by race/ethnicity.

Quantitative findings

In our results, more participants of color bought skins in comparison to White participants. Although participants that self-identified as East Asian, Southeast Asian, Middle Eastern or North African and Native Hawaiian or Pacific Islander also had higher averages than White or Caucasian participants, the sub-sample sizes for these were too small to conduct meaningful statistical comparisons of these demographics on their own. Participants of color, on average, reported purchasing more skins per month compared to White participants with Hispanic or LatinX participants purchasing significantly more with a *p*-value of 0.013 (Figure 5).

We also found that participants of color spent more money on average on skins compared to White participants, with Black participants spending significantly more compared to White participants with a *p*-value of 0.048. This question was another multiple choice question in which we used '0' to signify they reported spending no money on skins, we used '3' to signify they reported they spending \$25 to \$50, and we used '6' to signify they reported spending \$100 or more (Figure 6).

There were differences between participants of different ethnicities in terms of how often they bought skins. The majority of participants, regardless of race, say they buy skins 'occasionally throughout the year' or 'only when event or limited skins are available'. We found that, in most racial groups, 20%–25% of participants say they never buy skins, for example, 21.4% of Hispanic or LatinX participants, 25% of East Asian participants and 20% of South or Southeast Asian participants. A greater proportion of White or Caucasian participants (34.7%) say they never buy skins. In the other direction, only 6.3% of Black or African American participants and no participants who identified as Middle Eastern or North African, mixed race, or 'other' say they *never* buy skins (Figure 7).

The most common answer participants of all races and ethnicities gave as to why they choose to purchase skins was 'because I like the way the skin looks'. All other options were selected by fewer than 60 participants, this option was selected by 102 participants. The least common reason participants gave was to closely represent their real appearance in-game. Only 6.5% of total participants selected this as a reason they select skins in a check-all-that-apply formatted question. But, how this breaks down demographically is worth noting. By demographic, 5.4% of White or Caucasian participants, 6% of Hispanic or LatinX participants, 11.4% of Black or African American participants and 16.7% of South or Southeast Asian participants.

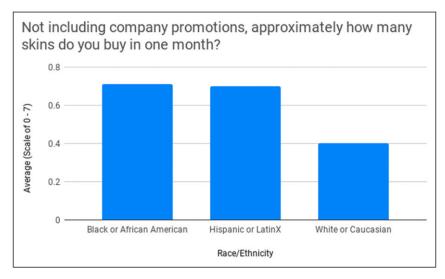


Figure 5. Approximate number of skins participants said they buy in 1 month, separated by race. Only larger demographic samples are depicted.

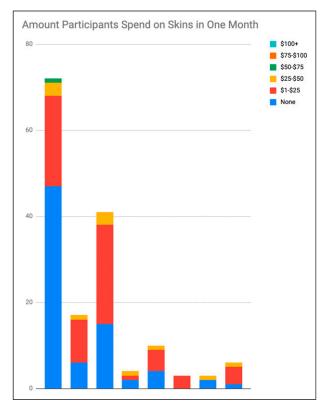


Figure 6. Approximate amount participants say they spent on skins in 1 month, separated by race.

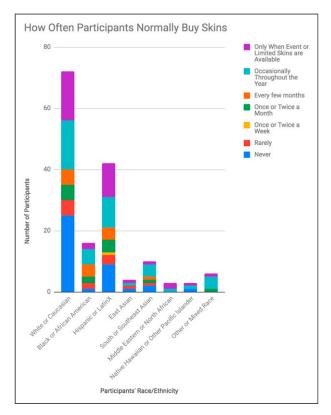


Figure 7. Frequency at which participants buy skins by race.

The percentage across demographics that said representation in games is important was 65.2%. However, how this desire for more diverse representation translated to the importance of diverse skins, or the desire for skins that allowed demographic self-representation varied across demographics. For example, the mean difference in responses of Black participants who indicated that skins that represented them mattered when purchasing them was significantly more than White participants who stated the same, with a *p*-value of 0.012.

Qualitative findings

We identified two complementary themes in our open-ended responses: *quasi-acceptance* and *privileged allyship*. Both describe complex feelings participants expressed about representation and self-representation in games. Quasi-acceptance was only observed in responses by participants of color. Privileged allyship was only observed in responses by White participants.

Quasi-acceptance. We identified *quasi-acceptance* in responses to the open-ended question, 'How much does diversity of playable characters, avatars, and skins matter in your choice of which games you play? Briefly explain'. This theme signifies the ways many participants of color were simultaneously resigned to limited character representation in their games, while still placing importance on the possibility of self-representation and diversity more broadly. For example, one

participant who most closely identified as Black or African American stated that 'I don't mind if a game lacks diversity. *It's nice when it has it,* but personally I can take it or leave it.' (emphasis added), while another participant who most closely identified as Middle Eastern or North African summarizes this experience by saying, 'I rarely see myself represented in games, so *I appreciate when it's there* but it doesn't really bother me when it isn't' (emphasis added). Responses such as these oscillated between accepting a general lack of options and appreciation for exceptions. Participants like these acknowledge self-representation as a positive element of games when present, yet did not consider it a deciding factor when choosing games to play, perhaps because this would severely limit their choices.

Participants of color often explained the importance of in-game representation. Several participants claimed they seek out skins that represent their racial identity. One such participant who most closely identified as Hispanic or LatinX explained their desire for in-game representation by saying, 'I *enjoy* the content of the game *more* if it can be made to feel as though I'M actually playing it, and it involves characters who reflect the diversity of the world around me' (italic emphasis added). Another participant who identified as Middle Eastern or North African stated that 'It bothers me to play games with non-diverse characters, because they often take place in huge imagined worlds and it just feels like lazy writing to not mix it up a bit'. Responses such as these appear frequently throughout our data. These responses assume gameplay is occurring despite suggesting these players enjoy the games they play more when they themselves are represented, *accepting* the rarity of this scenario.

Privileged Allyship. We identified the theme we describe as *privileged allyship* in responses by White participants to the same question ('How much does diversity of playable characters, avatars, and skins matter in your choice of which games you play?'). This theme refers to these participants' supporting greater racial representation in games while expressing indifference about the ability to self-represent, perhaps because their opportunities to do so are greater.

Many White participants stated a preference for greater general diversity yet lacked the same desire for greater self-representation in the games we observed with participants of color. We saw many comments by participants who most closely identified as White or Caucasian that were aligned with the responses of participants of color, such as one participant who said diversity 'helps a game grow and helps players feel [a part] of the game which improves the overall community'. Another writes, 'It warms my heart to see diverse representation in games because I know how much that matters to the people who rarely get that kind of representation'.

Participants of color and White participants shared a general consensus that diversity in games matters. However, White participants did not demonstrate the personal attachment to diverse representation that participants of color did. Even just above, a participant suggests the value of representation is for 'the people who rarely get [it]', which is *not* them. One participant admits, 'I guess I never felt I had identity issues to worry about, so they never appeared significant'. Another participant highlights how diversity may improve their experience from a purely aesthetic angle: 'I don't have a hard time finding games where the characters look like me, but I prefer when there are a variety of characters to choose from because it feels more original'. This participant's responses fail to acknowledge other potential values for diversity beyond creative expression.

Several White participants explicitly acknowledged the importance of diversity while also speaking to their lack of stake in it. For example, one participant responded '[diversity] never really occurs to me as a [W]hite male, but I do know how important it is to other people!' Other participants describe how they 'appreciate games being inclusive, but I think the quality of the game is more important', or how 'Gameplay will always be the number one focus. Diversity, if it's there, is

just a nice bonus'. These participants value game quality over diversity, suggesting that diversity is separate from game quality.

Other White participants considered diverse options for characters in games an 'addition' rather than an integral component of gameplay or even further differentiated diversity from gameplay in some way. For example, one participant states that, 'A lot of games I play don't even have story elements to incorporate a diverse cast. Even so, well thought out diversity in those that do is a big *plus* for me' (Emphasis added). Another said, 'I prefer more diverse options in games *if it's applicable*, but I won't not play a game if it's not diverse' (emphasis added), without addressing why diverse options wouldn't be applicable to any game with humans. Another participant describes diversity as important, but does not seem to consider available skins as contributing to diversity or that they may allow for people of color to self-represent: 'Diversity in playable characters is highly important, but I honestly don't think that skins matter at all'. This participant argues that diversity is important and skins are not in the same sentence. They state that diversity matters to them on an abstract level, yet appear indifferent to a tangible form of potential representation. They offer no explanation as to why skins may not matter. They seem to view skins as either not relevant to them or not part of the game, so therefore, not of consequence in their view of games.

Limitations/opportunities

Although our survey was distributed online, we did not make an effort to recruit internationally and are confident most participants were U.S.-based. While a limitation in some senses, this means our data is in closer conversation with Passmore et al. who specifically studied North American players (Passmore et al., 2018).

Another limitation – given the mostly U.S. focused sample – is that while we hoped for a more demographically diverse participant pool, the percentages of demographics in our sample are slightly more diverse than reported by the U.S. Census along certain axes of racial representation, and close to analogous along others (United States Census Bureau, 2019). Although the misalignment with the US population may appear at first a limitation, we view the disproportionate input from traditionally underrepresented groups a strength.

There is a potential confound when considering the wording of our question about why participants buy skins compared to the state of representation in games and skins. We discussed above how very few participants said that they bought skins to self-represent. However, if there are rarely options available *to* self-represent, responses become even more difficult to disentangle, and the fact that participants of color still provided this response at higher rates than white players is even more interesting.

Discussion

In our data, we observed how participants of color spent more money on skins, bought a greater quantity of skins and acquired skins more often in comparison to White participants. While we are not prepared to make general claims about how racial or ethnic identity may influence purchasing practices in a holistic sense, the fact that players of color may be spending more to play the same games requires deeper analysis.

Quasi-acceptance

The theme of *Quasi-acceptance* echoes and enhances related themes in the work of both Shaw (2014) and Passmore et al. (2018). *Acceptance* refers to Shaw's use of the term to describe the attitudes of her diverse participants resigning to the poor probability of finding diverse representation or the opportunity to self-represent (Shaw, 2014), relative to what Passmore et al. later describe as 'learned neutrality' (Passmore et al., 2018). The 'acceptance' that participants express is an acknowledgement that games rarely provide diverse performative options that include their own demographic characteristics. We, however, found this sentiment failed to capture the full position of participants, many of whom retained *some* optimism for the possibility of more diverse performative choices.

While participants of color who responded to our survey did demonstrate acceptance, they also valued being represented in games, and actively sought it out in the games they played. Our addition of 'quasi-' does not overwrite the underlying pragmatics of acceptance these earlier scholars describe. Rather, it acknowledges players are aware they are settling for fewer opportunities to play as characters that may resemble them. As we discuss above, previous research on representation in games suggests players of color do not have many options to self-represent so it *cannot* be a worthwhile deciding factor for which games they play. Participants in our study re-affirm this premise but still express a *desire* for greater performative choices that may include characters that resemble themselves in one way or another.

As Shaw (2014) and Passmore et al. (2018) discuss, acceptance can be a coping mechanism in response to broader discriminatory socio-cultural forces. Players of color exist in our society and so naturally consume some measure of media produced in it, whether they are self-represented in it or not. This practice over time can normalize or internalize harmful notions that non-normative identities are exceptional. The dissonance we saw in the responses to our surveys between what participants might be accustomed to accept (White defaults) and what they may intrinsically desire at some level (enough diversity to be able to represent themselves) is not a settled condition of their gaming experience. Future work can be done to further explore the details of this tension between what participants express about representation and what their specific choices of games to play or spending patterns indicate.

In the context of broader media consumption, it should come as no surprise that 'acceptance' (Shaw, 2014), and 'learned neutrality' (Passmore et al., 2018), are not absolute. The desire for greater representation is seemingly always poised to express itself in the purchase of responsible media representation. *Overwatch*, a game that has a cast that is diverse along axes of race, sexuality and physical and mental ability, has been wildly successful in recent years. In film, Marvel's *Black Panther* (2018), *Star Wars: The Force Awakens* (2015), *Spiderman: Into the Spider-Verse* (2018), *Raya and the Last Dragon* (2021) and *Shang-Chi and the Legend of the Ten Rings* (2021) have been stunning financial successes, in part, *because of* their diverse casts, not despite them. By clearly displaying the profit that can be generated through diversity and non-tokenized or stereotypical representation, these films provide a basis of comparison for how more diverse games, characters and even *skins* may be more profitable. And, *quasi*-acceptance represents a pragmatic hopefulness that media can contain characters and narratives players can connect with in ways they may not currently be able to in the games they purchase.

Privileged Allyship

A majority of the participants in our study – across racial or ethnic demographics – expressed a general desire for greater diversity in games, reinforcing what Shaw and Passmore et al. observe in their work (Passmore et al. 2017; Shaw 2014). However, the expression of this otherwise pervasive sentiment diverged somewhat between participants of color and White participants. Participants of color made personal connections between general diversity and the ability to self-represent. White participants expressed desires for greater diversity that were disconnected from their own experiences.

Unlike participants of color, White participants did not appear to feel a stake in greater diversity, nor did many of them seem to fully empathize with specific absences of representation. This perspective is likely because they already benefit from the privilege of default inclusion. That is, although White participants in our study expressed concern over lack of inclusion, their concerns remained abstract and impersonal. White participants often described diversity with terms such as 'addition' or 'bonus'.

For many White participants, diversity did not seem to be linked to the purchase of skins. After all, they do not *need* skins to self-represent. The 'Privilege of Immersion' that Passmore et al. describe White players possessing *in* games (Passmore et al., 2018), insulates White players from the specific feelings about representation players of color experience about games. To greater express the allyship we observed in our responses, White players need to figure out how to gauge representation in ways beyond their own experiences. They need to reconfigure their perception of diversity from an 'addition' to games or characters, to considering how greater diversity can be as integral to the conception of games as the narrative or mechanics.

Premium self-representation and diversity

Participants of color in our sample spent more money and bought more skins compared to White participants, suggesting that there may be an imbalance in the way players interact with this market. It also highlights an opportunity for the game industry to further diversify their characters and skins, while continuing to appeal to a wider audience.

Players of color share the same digital spaces and play the same games in which skins are prevalent (ESA, 2018; Passmore, 2018; Duggan, 2015). Yet, we found participants of color were consistently spending more on skins. The statistical significance between responses by Black or African American and Hispanic or Latinx participants compared to White participants about the quantity of skins purchased enhances the notion that these groups have an identifiable, and comparably higher, interest in acquiring additional visual appearances in their games, perhaps even some that vaguely resemble themselves. However, this opportunity comes with challenges.

The normative White male default identified by previous scholars (Passmore et al., 2018; Williams et al., 2009; and Gardner and Tanenbaum, 2018) influences the representation in purchasable skins. The sale of diverse skins through microtransactions may give developers a method to diversify their games over time and give players that are excluded by default an opportunity to represent themselves by providing a market for alternative visual appearances. But, when the *only* way to self-represent is locked behind a paywall, and/or *only* players of color are spending more money on skins, it divides the experience of players along racial *and* economic lines. This scenario potentially adds an economic barrier to self-representation that white players are currently less subject to.

Representation in games, with or without the availability of purchasable and potentially diverse skins, is well trodden territory, and continues to dominate the discourse on inclusion across scholarly and popular media forms. The availability of more diverse skins, even for purchase, is a positive shift for players and the game industry. However, the catch remains that if diversity is *only* available for purchase, players of color will continue to be disadvantaged by the commodification of their own performative or demographic markers. Self-representation as a premium codifies broader social forces and assumptions about who matters in and out of games.

Exoticizing Diversity

The themes of quasi-acceptance and privileged allyship we identify above are both perspectives related to diversity, but divergent in intent. While White players may still need to buy skins to represent some aspects of their identity, their racial demographic category is generally represented by default. Things get complicated when they purchase skins that represent races other than their own. As seen with qualitative responses, White players often consider diversity as a 'bonus' or 'addition'. For players of color, on the other hand, diversity can be an opportunity to self-represent or to simply *be present* in games in some form. Applied to the phenomenon of contemporary and monetized skins, White players purchasing the skins of other races to wear as a 'bonus' can quickly become an updated version of Nakamura's identity tourism, in virtual-corporeal form.

Our responses help to show how White players experience diversity fundamentally differently than players of color and that their stakes in increasing the ability of all players to self-represent are lower. White players may morally or critically support greater diversity, enjoy greater diversity for the 'novelty' it brings (Passmore et al., 2018), or wish to participate in 'identity tourism' (Nakamura, 1995, 2002). Whatever their motivation, diversity is something that enhances what is already made for them rather than something that makes a place for them where there may not otherwise clearly be one. Worse, skins of color can still conform to harmful stereotypes, or tokenized aesthetics. White players donning these skins add a potentially troubling embodied dimension to Nakamura's original analysis of White players uncritically inhabiting the identities of others.

At a high level, the current representational landscape coupled with the skin market creates a space where players of color may need to dedicate more time and money than White players to experience games the same way. And, when skins of color are made available, they may, in fact, be used to perpetuate stereotypes against players of color themselves.

Future Research/Applications

Our future research will delve deeper into the meaning of 'lik [ing] the way a skin looks'. Although this response may seem like a superficial answer, it has multiple dimensions, likely informed by how different participants are socialized by global, national and local communities and institutions. Due to a lack of qualitative explanations in original responses and the difficulty of measuring what it means to like or dislike something, future work will include a more targeted survey, as well as interviews with participants. These interviews will explore which specific skins players buy and what *specifically* motivates or influences players' decisions to purchase them.

We acknowledge that additional representation, such as gender, socio-economic status, sexuality, ability and age is important. One participant stressed the lack of variety in playable skins in terms of age, rather than race or ethnicity, by stating 'I like to customize my avatar to be like myself because I am playing as me. As I age, It is more difficult to find skins that reflect who I am. So I end up with young skins that make me feel as if I am falsely representing who I really am'. This response

suggests limitations for self-representation along new and different axes. This response also expresses a discomfort and *acceptance* in playing as a customizable character that does not represent the participant's real-world identity to play these games.

Summary and Conclusion

Microtransactions impact players, developers and the gaming industry. Players express themselves in various ways through the characters and avatars they use – and for whom they purchase alternate appearances – to represent themselves in video games. We found that participants of color buy more skins and spend more money on skins. Further research is required to evaluate these motivations and clarify how often these purchases are made in an effort to self-represent. The quasi-acceptance we found among participants of color signifies a pragmatic outlook on diversity in video games. When coupled with our quantitative findings, such an outlook suggests players of color are self-aware of their stakes in the skin market. Our findings invite a greater discussion of how spending patterns, informed by identity and representation can be observed in the sale of microtransactions.

Underrepresented players who are not typically present in 'default' video game characters and appearances may seek to acquire skins to better portray themselves. This demand for more diverse character presentations creates an incentive for the game industry to commodify racial and ethnic diversity and keep diversity at a premium. However, should a paywall controlling the availability of diverse characters become the new norm, it recreates a landscape of systematic and economic discrimination against players of color. This situation would create a scenario of inequitable access to self-representation where players of color must pay a premium that White players do not to fully engage with virtual spaces.

Lamont and Molnar claim that Black consumers utilize consumption as a means to 'gain social membership' in society (Lamont and Molnár, 2001: 34). However, 'society' is an institution that has historically and actively restricted rights and resources to these same communities. Although it may not be their intent, Lamont and Molnar present a useful analogy for the acquisition of skins in games. Players of color faced with poor default options for self-representation seemingly need to spend additional money in order to *gain membership* in a space to which they already belong.

Downloadable or purchasable skins that, by definition, fall beyond the default game experience challenge measures of diversity in games. Some players may choose not to purchase diverse skins, or any skins – or may not have the economic means. The representation in these players' version of a game will differ from that of any player who does or can purchase diverse skins. This scenario describes a state of tiered diversity depending on the resources of players rather than the publishers who create these games. This situation puts the burden of *accessing* a level of representation that should – ideally – be available to all players by default, on players.

People of color play games at a higher rate as a proportion of demographic populations than White people (Duggan, 2015; Lehnert, 2015; Passmore et al., 2018). Yet games remain less diverse than the people who play them (Gardner and Tanenbaum, 2018; Passmore et al., 2017; Williams et al., 2009). This lack of diversity is prevalent in games that have singular default characters as well as those that allow players to create their own character – where many design features frequently favor lighter and/or Caucasian skin tones, often leading to people of color being unable to represent themselves (Gardner 2021; Gardner and Tanenbaum, 2018; McArthur et al., 2015). Skins are a new – monetized – means for players to customize their characters. To adequately support and represent players, games must rethink the systems that peddle these *skins* and better reflect the extensive diversity of their players at no extra cost.

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Note

 Since data collection, the authors have encountered compelling arguments for using Latine as a more critically informed gender-neutral term. However, LatinX is what was written on our survey, so we kept it in this article to be consistent and transparent.

References

- Barad K (2007) Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning. USA: Duke University Press.
- Boellstorff T (2008) Coming of Age in Second Life: An Anthropologist Explores the Virtually Human. Princeton, NJ: Princeton University Press.
- Butler J (1990) Gender Trouble: Feminism and the Subversion of Identity. New York, NY: Routledge.
- Chess S Evans NJ and Baines J J (2017) What does a gamer look like? Video games, advertising, and diversity. *Television & New Media* 18(1): 37–57. DOI: 10.1177/1527476416643765
- Duggan M (2015) Gaming and Gamers. PEW Internet Research. Available at https://www.pewresearch.org/ internet/2015/12/15/gaming-and-gamers/ (accessed on 31 July 2019).
- Electronic Software Association (ESA) (2018) US Video Game Industry Revenue Reaches \$36 Billion in 2017. Press Releases, ESA. Available at https://www.businesswire.com/news/home/20180118006511/en/US-Video-Game- Industry-Revenue-Reaches-36-Billion-in-2017 (accessed on 31 July 2019).
- Gandy O H (2001) Racial identity, media use, and the social construction of risk among African Americans. *Journal of Black Studies* 31(5): 600–618.
- Gardner DL (2021) *Thresholds of Interpretation: Interfaces on the Periphery of Gameplay.* Dissertation: University of California. Irvine.
- Gardner D L and Tanenbaum T J (2018) Dynamic Demographics: Lessons from a Large-Scale Census of Performative Possibilities in Games. In: Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems. New York, NY, USA, pp. 1–12. DOI: 10.1145/3173574.3173667.
- Gardner DL and Tanenbaum T (2021) At the Edge: Periludic Elements in Game Studies. Game Studies 21(4).
- Gray Kishonna (2014) Race, Gender, and Deviance in Xbox Live: Theoretical Perspectives from the Virtual Margins. New York: Routledge.
- Gray Kishonna L (2020) Intersectional Tech: Black Users in Digital Gaming. Louisiana State University Press.

Hart C (2017) Getting into the game: an examination of player personality projection in video game avatars. Game Studies 17(2). http://gamestudies.org/1702/articles/hart.

Higgin T (2009) Blackless Fantasy. Games and Culture 4(1): 3-26.

Jeroen J and Martis RG (2003) *The Representation of Gender and Ethnicity in Digital Interactive Games*. Proceedings of the 2003 DiGRA International Conference: Level Up. vol 2 http://www.digra.org/digitallibrary/publications/the-representation-of-gender-and- ethnicity-in-digital-interactive-games/.

- Kafai Y B Cook M S and Fields D A (2010) "Blacks Deserve Bodies Too!": Design and Discussion About Diversity and Race in a Tween Virtual World. *Games and Culture* 5(1): 43–63. DOI: 10.1177/ 1555412009351261.
- Klastrup L and Tosca S (2009) "Because it just looks cool!" Fashion as character performance: The Case of WoW. *Journal For Virtual Worlds Research* 1(2): 1–17. doi: 10.4101/jvwr.v1i3.305.
- Lamont M and Molnár V (2001) How Blacks Use Consumption to Shape their Collective Identity. Journal of Consumer Culture 1(1): 31–45.
- Lehnert A (2015) Teens, Technology & Friendships: Video Games, Social Media and Mobile Phones Play an Integral Role in How Teens Meet and Interact with Friends. PEW Research Center. Available at https://www.pewresearch.org/internet/2015/08/06/teens-technology-and-friendships/ (accessed on 31 July 2019).
- McArthur V Teather R J and Jenson J (2015) The Avatar Affordances Framework: Mapping Affordances and Design Trends in Character Creation Interfaces. In: Proceedings of the 2015 Annual Symposium on Computer-Human Interaction in Play, pp. 231–240. DOI: 10.1145/2793107.2793121.
- Nakamura L (1995) Race in/for cyberspace: identity tourism and racial passing on the internet. *Works and Days* 13(1–2): 181–193.
- Nakamura L (2002) Cybertypes: Race, Ethnicity, and Identity on the Internet. New York, NY: Routledge.
- Nguyen T, Khan N, Berardi A, et al (2020) *Exploring the Perceptions of Race on Video Game Covers*. iConference 2020 Proceedings. http://hdl.handle.net/2142/106597.
- Passmore C J Birk M V and Mandryk R L (2018) The Privilege of Immersion: Racial and Ethnic Experiences, Perceptions, and Beliefs in Digital Gaming. In: Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems. New York, NY, USA, pp. 1–19. 383. DOI: 10.1145/3173574.3173957.
- Passmore C J, Yates R, Birk M V, et al (2017) Extended Abstracts Publication of the Annual Symposium on Computer-Human Interaction in Play. New York, NY, USA, pp. 137–151. DOI: 10.1145/3130859. 3131438.
- Passmore C J and Mandryk R (2018) An About Face. Proceedings of the 2018 Annual Symposium on Computer-Human Interaction in Play: 365–380. DOI: 10.1145/3242671.3242711.
- Reza A, Chu S, Khan Z, et al (2019) Skins for Sale: Linking Player Identity, Representation, and Purchasing Practices. In: 14th International Conference, iConference 2019. Washington DC, USA: Springer, pp. 124–131. DOI: 10.1007/978-3-030-15742-5 11.
- Reza A, Need A, Chu S, et al (2020) I like the Way the Skin Looks": Player Perspectives on Aesthetic Appeal and Self-Representation with Video Game "Skins.In: iConference 2020 Proceedings http://hdl.handle.net/ 2142/106593.
- Sedgewick EK (2003) *Touching Feeling: Affect, Pedagogy, Performativity.* Durham, NC: Duke University Press.
- Shankar A Elliott R and Fitchett J A (2009) Identity, consumption and narratives of socialization. *Marketing Theory* 9(1): 75–94.
- Shapiro E (2010) Gender Circuits: Bodies and Identities in a Technological Age. Routledge.
- Shaw A (2014) *Gaming at the Edge: Sexuality and Gender at the Margins of Gamer Culture.* Minneapolis, MN: University of Minnesota Press.
- Shaw A and Friesem E (2016) Where is the queerness in games? Types of lesbian, gay, bisexual, transgender, and queer content in digital games. *International Journal of Communication* 10: 3877–3889. https://ijoc. org/index.php/ijoc/article/view/5449.
- Tassi P (2018) It Costs Over \$450 to Buy Every "Fortnite: Season 5" Skin. *Forbes*. Available at: https://www. forbes.com/sites/insertcoin/2018/09/24/it-costs-over-450-to-buy-every-fortnite-season-5-skin/?sh= 31da9db92d34 (accessed 31 July 2019).

- Turkle S (1997) Constructions and reconstructions of self in virtual reality: Playing in the MUDs. In: S Kiesler (ed), *Culture of the Internet*. Lawrence Erlbaum Associates Publishers, pp. 143–155.
- United States Census Bureau (2019) Quick Facts, United States. Available at: https://www.census.gov/ quickfacts/fact/table/US/PST045219 (accessed 31 July 2019).
- Williams D, Martins N, Consalvo M, et al (2009) The virtual census: representations of gender, race and age in video games. *New Media & Society* 11(5): 815–834. DOI: 10.1177/1461444809105354.