## Playing by Feel: Gender, Emotion, and Social Norms in Overwatch Role Choice

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#### **ABSTRACT**

This paper explores how emotion, gameplay context, and social norms shape role choice in both digital and institutional systems. Using Overwatch as a case study, it examines gendered experiences of physiological excitement and decision-making during play. Women often describe heightened emotional engagement where victory represents both personal achievement and resistance to cultural expectations. Such emotions influence situational choices, including whether to play as a Tank, DPS, or Support, and which hero to select based on perceived risk or visibility.

Drawing on feminist game studies and transdisciplinary communication, the authors argue that role preference is determined not only by game mechanics but also by cultural scripts. Comparisons with Apex Legends show how design encodes gender differently across franchises. In Overwatch, the historical coding of Tanks as masculine and Healers as feminine reinforces stereotypes even as players subvert them.

Building on Donna Haraway's concept of the cyborg, the woman-Tank represents a hybrid identity that is both empowered and constrained by visibility and performance. Poor performance invites criticism, while success often goes unacknowledged. By situating Overwatch within broader systems of inequity, this study shows how emotion, design, and norms interact to reproduce or challenge bias, positioning games as laboratories for systemic equity and cultural transformation.

**Keywords**: Cyborg Identity, Feminist Game Studies, Gender Playstyles, Physiological Arousal, Transdisciplinary Communication.

#### 1. INTRODUCTION

"How can the lessons of player choice exemplified by the case of Overwatch inform global practices of higher education—where identity, emotion, and social norms often reward bias instead of eauity?"

This unifying question frames the argument of this paper and reflects the central concern of both cybernetics and systemic inquiry: how systems reproduce patterns through feedback and communication. While video games and universities may seem to belong to separate domains, both operate as socio-technical systems where design, norms, and incentives interact to stabilize behaviors. By comparing higher education and online competitive play, this study examines how bias is reproduced not through individual prejudice alone but through structural mechanisms that reward conformity and sanction resistance.

The analysis proceeds in three layers. At the macro level, global higher education provides a system whose promise of inclusion and knowledge-sharing across borders often collapses into regression toward standardized, militarized, and siloed practices. These structures tend to reward compliance and prestige, while punishing critical voices that question inequity. At the meso level, game studies show that digital play frequently replicates exclusionary logics: the erasure of women characters, reliance on stereotypes, and the rewarding of toxic behaviors such as trash talk or aggression. The systemic signal in both cases is clear:

Equity is rarely rewarded as an outcome, while exclusion and bias become normalized through systemic incentives. At the micro level, the online game Overwatch offers a detailed case study. As a team-based shooter with defined roles: Tank, Damage per Second (DPS), and Support.

The authors propose that this systemic signal provides a laboratory for analyzing how identity, emotion, and norms converge to shape player choice. Role selection becomes not only a mechanical decision but also a negotiation with gendered expectations, cultural scripts, and community sanctions.

To analyze these dynamics, this paper advances the concept of the Bias Feedback Loop, a systemic model describing how stereotypes are replicated, reflected, rewarded, and reinforced within socio-technical environments. In Overwatch, this manifests in the clustering of women players in Support roles, the punitive treatment of women who adopt Tank roles, and the hypervisibility of exceptional cases such as Kim "Geguri" Seyeon, who was compelled to prove her legitimacy as a professional player publicly. These outcomes mirror broader educational structures where students and faculty from marginalized hyper-visible groups become disproportionately scrutinized, and yet often erased from recognition.

The argument is grounded in a syllogistic structure.

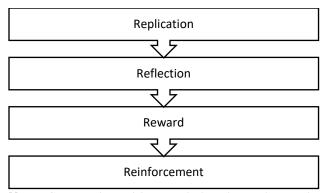
**Major Premise:** Any socio-technical system that rewards bias instead of equity will reinforce exclusionary norms, regardless of progressive design intent.

**Minor Premise:** In *Overwatch*, role choice reproduces gendered stereotypes through a feedback loop that punishes deviation and rewards conformity.

**Conclusion:** Therefore, *Overwatch* role choice exemplifies how systemic bias stabilizes through feedback loops, offering a transferable model for analyzing and redesigning inequitable systems such as global higher education.

By situating *Overwatch* alongside higher education, this paper contributes a transdisciplinary framework for understanding how systemic inequities persist even within systems designed for collaboration and diversity (see Figure 1). More importantly, it offers a pathway to systemic redesign: one that treats equity not as a byproduct of participation but as a goal that must be consciously engineered into system architecture.

Figure 1. Bias Feedback Loop



**Note.** Conceptual model created by the authors. The visualization synthesizes data and theoretical constructs discussed in Sections 2–5.

#### 2. GLOBAL EDUCATION (MACRO)

One of the defining features of twenty-first-century higher education is its global scope. Universities have increasingly positioned themselves as nodes in international networks of knowledge exchange, promising to connect scholars, students, and ideas across borders. The vision of globalized education is framed in terms of openness, collaboration, and equity. Through digital platforms, international partnerships, and student mobility programs, higher education institutions claim to enable the free circulation of knowledge and to foster inclusive spaces for learning.

Yet, systemic analysis reveals a critical gap between this promise and the lived reality [1]. Rather than fulfilling the potential of global connectivity, many universities regress into disproven and rigid models of learning, emphasizing rote memorization, standardized assessments, and militarized hierarchies of evaluation. Research on high-stakes testing in the United States demonstrates a similar pattern, where standardized assessments narrow the curriculum which encourages teaching to the test and ultimately undermines genuine student motivation [2]. Similar instances are present internationally: in Asia, state-mandated exams have also been shown to reinforce rigid hierarchies and limit pedagogical innovation (Shin & Harman, 2009). These practices mirror what cybernetic scholars describe as homeostatic tendencies: systems reverting to stable but inequitable patterns despite the introduction of new design elements [3]. The intent to expand knowledge flows across borders thus collides with the inertia of entrenched practices, creating a paradoxical situation in which globalization amplifies rather than disrupts inequities [4].

This regression is not accidental. It reflects a deeper property of socio-technical systems: their tendency to reproduce the logics embedded in their design and reward structures. If institutional prestige is tied to rankings based on standardized metrics, universities will prioritize those metrics over inclusive or experimental pedagogies. If student success is defined narrowly as performance on high-stakes tests, learning becomes a process of compliance rather than creativity. In short, the systemic logic of global higher education remains tied to exclusionary practices, even as its rhetoric celebrates equity and diversity.

#### 2.1. Isolation and Rewarding Negative Behaviors

A second systemic challenge arises from the siloed nature of educational communities. Cybernetic theory emphasizes the importance of feedback and communication for system adaptability. However, higher education often operates as a series of isolated silos: departments, disciplines, institutions, and even students, where feedback is limited, and dominant norms remain unchallenged. These silos prevent effective collaboration and knowledge sharing, reducing adaptability and reinforcing entrenched norms [5]. Silos at the institutional, departmental, and student levels that operate on their own logics and accountability mechanisms make it difficult for innovation or critical voices to gain traction.

Within these silos, implicit biases are reinforced rather than questioned, creating what might be termed self-referential loops of inequity. The consequence is that compliance becomes the rewarded behavior, while critical or dissenting voices are marginalized. For example, students who conform to the norms of passive acceptance are rewarded with higher evaluations and smoother progression. At the same time, those who challenge inequitable practices may be labeled disruptive or difficult [6]. Faculty experience similar dynamics: research that aligns with dominant paradigms is more likely to be published, funded, and rewarded, while critical or interdisciplinary work may be sidelined.

In one of the author's experiences as a university instructor, standardized curricula are usually mandated by larger entitiesgovernment agencies, state boards, and accreditation organizations, many of whom are often far removed from the student experience and classroom. While these policies aim to ensure consistency and fairness across institutions, they frequently undermine student motivation by limiting what counts as the proper way to learn. Students have been observed losing interest when confined by rigid requirements, despite seeing them display genuine interest and curiosity when given more freedom. Simultaneously, instructors must exercise discretionary judgment in applying specific policies, for example, allowing exceptions for religious observances or familial commitments. This flexibility, while seemingly empowering, tends to reinforce systemic inconsistency: decisions based on individual judgment can affect student performance and lead to unequal experiences for students within the same institution, or even within the same

The result is a paradoxical situation: systems designed to foster critical inquiry often suppress it. This mirrors what occurs in competitive online games, where communities intended to foster collaboration and creativity end up rewarding toxic behaviors such as trash talk, aggression, and exclusion. In both domains of education and games, the Bias Feedback Loop is at work: inequities are replicated, normalized, rewarded, and reinforced until they become entrenched features of the system (See Table 1).

Table 1. Bias Feedback Loop in Education

Element	Description
Replication	Educational systems replicate inequities through curricula, assessments, and rankings that codify narrow definitions of success.
Reflection	These inequities are reflected as "natural" hierarchies of talent, intelligence, or merit.
Reward	Students and faculty who conform to these hierarchies receive emotional and material rewards.
Reinforcement	The norms are exported beyond the classroom, shaping cultural expectations about who belongs in higher education and who does not.

Note. Model created by the authors.

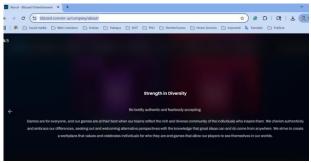
From a systemic perspective, the failure of higher education to deliver on its global promise is not simply a matter of policy or leadership. It is the emergent property of feedback loops that stabilize inequity. Efforts to reform higher education often fail because they target surface-level practices rather than the deeper cybernetic processes that reward bias and sanction equity.

#### 2.2. Parallels with Competitive Play

These dynamics set the stage for the meso-level analysis of digital games. Just as universities promise inclusion but reward compliance, games like *Overwatch* promise diversity and collaboration but reward toxic play and gendered stereotypes. In both systems, the surface design: diverse rosters of heroes in games, international networks in education, conceals the persistence of inequitable feedback loops.

Higher education institutions often promise inclusion through diversity initiatives and support systems for all students. However, these promises can be undermined by systemic structures that prioritize conformity over critical engagement. Game designers, particularly those behind Overwatch, have also pledged commitment to inclusivity: "Games are for everyone, and our games are their best when our teams reflect the rich and diverse community of the individuals who inspire them. We cherish authentically and embrace our differences, seeking out and welcoming alternative perspectives with the knowledge that great ideas can and do come from anywhere...We strive for games that allow our players to see themselves in our worlds" (see Figure 2). In practice, this promise has guided Overwatch's diverse cast and storytelling choices, creating opportunities for players to see themselves represented through heroes of various genders, ages, ethnicities, and sexual orientations [7]. Overwatch's character design was, from the beginning, intentionally aimed at challenging stereotypes. The designers thoughtfully considered how they wanted fans to feel as they interacted with the game and its characters [8]. However, some gameplay experiences have faced challenges like role-based stereotyping.

Figure 2. Strength in diversity



*Note.* Core Values at Blizzard Entertainment source: <a href="https://www.blizzard.com/en-us/company/about/">https://www.blizzard.com/en-us/company/about/</a>

Understanding higher education through the lens of systemic bias makes it possible to draw parallels with online play. Both are learning environments structured by identity, emotion, and norms. Both rely on role selection, for example, student, mentor, researcher in education, or tank, DPS, or support in video games. In both areas, choices are influenced by stereotypes and past feedback, which can discourage experimentation and reinforce inequities. For example, female players in role-based team games are often expected to choose a support role, similar to how students may be placed into certain academic tracks based on gendered or cultural expectations.

And in both, the critical question is whether these roles are avenues for equity and collaboration or mechanisms for reinforcing bias.

Thus, the macro-level analysis of global higher education provides a conceptual frame for the rest of the paper. By situating *Overwatch* role choice within the same systemic logics, the paper demonstrates that video games are not trivial diversions but valuable laboratories for studying how identity and bias are reproduced through feedback and reward.

## 3. GAME STUDIES (MESO)

Digital games, like universities, are socio-technical systems that combine design, community norms, and incentive structures [9]. While they are often marketed as spaces of innovation and creativity, a systemic perspective shows that games frequently mirror the same inequities present in education and other institutions [10]. Game studies scholarship has long identified exclusionary design patterns. For example, early platformers like Super Mario Bros framed women primarily as "damsels in distress" with the character Princess Toadstoll, also known as Princess Peach (see figure 3), reinforcing gendered hierarchies of passivity and rescue [11]. Other cases reveal how women protagonists were erased or relegated to ornamental roles during game development processes [12]. A content analysis of over 500 games released between 1983 and 2014 further confirms this systemic bias: although, within games, the sexualization of women has slightly decreased since the introduction of video games, female characters continue to appear disproportionately in secondary or ornamental roles, and their physical capability is still tied to a sexualized presence [13]. These design choices replicate cultural stereotypes and encode them into interactive systems.

Figure 3. Princess Peach



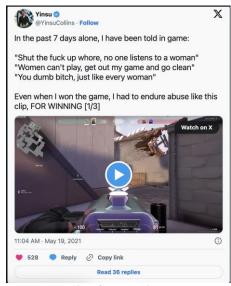
*Note.* This is stock art by Nintendo, representing Princess Peach in her normal attire [14].

In the same way that higher education promises openness but defaults to militarized and standardized models, game design promises diversity but often falls back on exclusionary tropes. This demonstrates a common systemic tendency: institutions and games alike reproduce the structures that are already embedded in their design and feedback mechanisms, even when they appear to innovate.

#### 3.1. Rewarding Toxic Play

If design encodes stereotypes, play communities reinforce them through behavior. Kuznekoff & Rose [15] research on toxic play highlights how competitive environments systematically reward negative behaviors such as trash talk, harassment, and aggression. In many online games, verbal abuse is normalized as part of competition, with players claiming it as a strategy to destabilize opponents. The systemic outcome is that "winning at any cost" becomes a more valuable currency than collaboration or inclusion. This also has Locus of Control, Individual and Comunal implications [16] and other cultural dimensions [17]. In theory, opportunities for participation in esports should be equally accessible across genders. Unlike traditional sports (where women are often excluded based on claims of physical inferiority), competitive gaming should level the playing field by emphasizing cognitive skills and teamwork rather than physical ability. However, research suggests that gendered hierarchies persist even in digital competitive spaces. In Overwatch and other games, women are often subjected to harassment from teammates once their gender is revealed, whether through voice chat or player interactions (see Figure 4). This includes behaviors such as teammates intentionally throwing games, dismissing their competence, or demanding proof of their skill to legitimize their skill (Choi et al., 2019).

Figure 4. Yinsu X post



**Note.** Screen capture taken from X [18].

Recent research confirms that this toxicity is not anecdotal but systemic. A study of North American women gamers found that over 56% had experienced sexual harassment while gaming, and nearly half had witnessed other women players being harassed [19]. Notably, about half of those who experienced harassment even labeled it as such, suggesting a deep normalization of abuse within the gaming community and its culture. Spanning countries and throughout the gaming community, another international study of esports players across 14 countries found that female and professional competitors were significantly more likely to face cyberbullying and sexual harassment, highlighting how toxicity may increase with visibility and skill level [20].

Such dynamics not only discourage participation but also undermine the inclusive intentions of the Overwatch developers. This parallels the reward structures of academia, where prestige, citation counts, and research funding often outweigh the values of collaboration, mentorship, or equity. In both domains, the systemic signal is clear: individual advancement is prioritized over collective well-being. The cybernetic implication is that the reward mechanism (whether victory in games or prestige in academia) creates a feedback loop that continually reinforces bias and exclusion.

Moreover, the valorization of toxic play generates what game scholars describe as barriers to entry [21], [22]. Women and marginalized players face harassment that drives them out of competitive spaces, just as students and faculty from underrepresented groups are pushed out of academia by systemic exclusion. These processes are not failures of individual actors but emergent properties of systems designed to reward dominance.

## 3.2. The Bias Feedback Loop

To understand these dynamics in systemic terms, this paper introduces the Bias Feedback Loop as an analytic framework (see Table 2). The loop describes how stereotypes and inequities are not static but are reproduced dynamically through system design, emotional response, and community reinforcement. It operates in four stages:

Table 2. Bias Feedback Loop in Video Games

Element	Description
Replication	Biases are coded into the system at the level of design. In games, this includes character archetypes where male figures are fighters and female figures are ornamental or supportive.
Reflection	Players perceive these codifications as "natural," treating gendered expectations as inherent to the system.
Reward	Conformity with stereotypes produces emotional and competitive benefits. For example, aggressive play is valorized, while supportive or care-based roles are undervalued.
Reinforcement	These norms extend beyond the game, shaping expectations in broader social contexts such as education or the workplace.

Note. Conceptual model created by the authors.

The Bias Feedback Loop functions as a cybernetic process of stability. Even when new elements are introduced—such as diverse rosters of characters or equity initiatives in education—the loop tends to reassert equilibrium by channeling behavior back toward established stereotypes. This explains why diversity by design often fails to translate into diversity in practice.

#### 3.3. Overwatch Background

Overwatch represents a compelling site to examine the Bias Feedback Loop in action. Released by Blizzard Entertainment in 2016 [23], the game introduced a roster of diverse heroes, including women, people of color, and non-traditional archetypes. Unlike earlier shooters, Overwatch emphasized teamwork through three distinct roles: Tank, Damage per Second (DPS), and Support. This design was heralded as progressive, aiming to broaden participation and reward collaboration.

However, as with higher education, the introduction of progressive design elements did not eliminate bias. Instead, systemic feedback loops reasserted themselves. Women players were clustered disproportionately in Support roles, perceived as "natural caregivers," while men dominated DPS roles, valorized as the visible stars of the team [24]. A study surrounding esports found that women were often perceived as less competent than men, even when performance was equal, showing how social expectations within the community reflect the biases encoded in the system [25]. Women who took on Tank roles resist passivity but are punished more severely for mistakes and have their successes minimized [26].

The dynamics of *Overwatch* thus mirror those of higher education. Both are systems that promise diversity and collaboration, yet reward compliance with entrenched norms. Both generate silos where inequity becomes normalized through feedback loops. And both reveal that surface-level inclusion does not alter deeper systemic dynamics unless reward structures are fundamentally redesigned.

At the meso level of analysis, games like *Overwatch* act as mirrors of the exclusionary logics found in education. They show how systems designed to foster collaboration can become arenas where toxic play and bias are rewarded. The introduction of the Bias Feedback Loop provides a systemic vocabulary for

understanding how these dynamics emerge and persist. This prepares the ground for the micro-level case study of *Overwatch* role choice, where these feedback loops become visible in the most granular form: the negotiation of identity and emotion in selecting a role within a match.

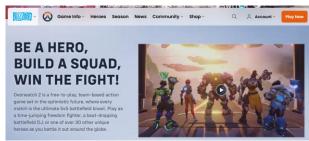
# 4. CASE STUDY: OVERWATCH ROLE CHOICE (MICRO)

Having established how systemic inequities manifest at the macro level of global higher education and the meso level of digital game design and community norms, we now turn to the micro level, where these forces are enacted through individual experience and emotional regulation. The game Overwatch serves as a living laboratory for observing how players negotiate identity, emotion, and cultural expectation through moment-tomoment choices. By focusing on role selection (Tank, DPS, or Support), we can trace how the Bias Feedback Loop operates not only in institutional or cultural systems but also in the embodied decisions of individual players. This micro-level analysis reveals the everyday mechanics of bias reproduction: how systemic hierarchies are felt, contested, and occasionally transformed through play. In doing so, it bridges structural critique with lived experience, translating abstract systemic dynamics into human terms of engagement, emotion, and resistance.

## 4.1. Role Framework: Tanks, DPS, and Supports

At the most granular level, *Overwatch* offers players three categories of roles: Tank, Damage per Second (DPS), and Support. Tanks are designed to absorb damage, control space, and lead team engagement. DPS characters are optimized for high-output elimination of opponents and often occupy the spotlight due to their visibility in kill counts. Support roles heal and amplify teammates, providing the foundation without which teams cannot sustain competitive play (see Figure 5).

Figure 5. Overwatch 2



*Note.* Blizzard Overwatch 2: A future Worth Fighting for. Source: <a href="https://overwatch.blizzard.com/en-us/">https://overwatch.blizzard.com/en-us/</a>

From a purely mechanical perspective, these roles are intended to be equal in importance, each contributing to the systemic equilibrium of a match. However, social norms overlay these mechanics, producing hierarchies of value. DPS roles are celebrated as the "stars" of the game, Tanks are framed as leaders and protectors, and Supports are treated as auxiliary—critical yet undervalued. Thus, role choice functions not only as a strategic decision but also as a negotiation with community expectations and cultural scripts.

In systemic terms, *Overwatch* role architecture represents a nested subsystem within the Bias Feedback Loop. Even when designed to balance interdependence, roles carry symbolic weight that is socially distributed along gendered lines. The result is that the apparent neutrality of design gives way to emergent bias in practice.

As the following sections will demonstrate, this role architecture not only determines tactical coordination but also influences identity, emotional investment, and cultural visibility. How players inhabit these digital spaces reveals how deeply cultural hierarchies are embedded within seemingly neutral designs.

## 4.2. Gendered Playstyles and Emotional Intensity

Empirical studies confirm that gender stereotypes strongly shape perceptions of role choice. Zhou et al. [24] found that 92% of surveyed players believed DPS roles were dominated by men, while 76% associated women with Tank or Support. This clustering reflects what the Bias Feedback Loop predicts: stereotypes replicated in design and reflected in community discourse become reinforced through perception.

Women who choose Tank roles often do so as a deliberate act of resistance against stereotypes of passivity. Yet systemic consequences emerge. Research shows that women in leadership-coded positions face greater scrutiny and are punished more harshly for mistakes compared to men in the same roles [27]. Their successes, meanwhile, are frequently downplayed or attributed to external factors. Similarly, men who choose Support roles resist the cultural devaluation of care work but encounter stigmatization, as if their role selection undermined expectations of masculine aggression.

This pattern is well supported beyond the gaming and digital space. Eagly and Karau's [26] Role Congruity Theory demonstrates that women in leadership roles experience prejudice when their behavior violates gender expectations and are judged less favorably when acting with authority, and their success is more likely to be discounted. This can be seen in the Overwatch ecosystem, where Tank positions function as leadership-coded roles subject to similar bias feedback mechanisms.

This interplay between role and stereotype produces a heightened emotional charge. For women Tanks, achievement becomes both personal accomplishment and political act, yet the system converts this into risk: failure is amplified, and success is ignored. For men, the emotional cost is reputational: stepping outside prescribed norms invites derision. In both cases, role choice becomes a site of affective labor, where the emotional burden of resisting bias is added to the cognitive and mechanical demands of gameplay.

These dynamics are amplified in online environments where identity performance is continuous, social evaluation is immediate, and every match becomes a stage for the enactment of social hierarchies. The affective dimension of play, how players feel about their successes or failures, is inseparable from the social meanings attached to their chosen roles.

Here, the parallel to higher education is evident. Students from marginalized groups who choose to resist academic stereotypes by pursuing non-traditional research, speaking against inequity, or assuming leadership incur additional costs. They are more visible when they fail and less recognized when they succeed. Role negotiation, whether in games or academia, is inseparable from the systemic reproduction of inequity.

While the Bias Feedback Loop provides a systemic model for understanding how inequities are replicated, reflected, rewarded, and reinforced within socio-technical environments, it primarily describes the structural reproduction of bias across design, community norms, and reward mechanisms. In contrast, Haraway's concept of the Cyborg operates at the level of identity negotiation within that structure. The cyborg represents the player's capacity to inhabit hybrid roles (simultaneously human and digital, agent and artifact) while navigating the constraints imposed by systemic feedback. Together, these frameworks

reveal a dual dynamic: the Bias Feedback Loop explains how systems sustain inequity, while the Cyborg perspective exposes how individuals perform, resist, and reinterpret those inequities through embodied play. This integration positions the player not merely as a subject of systemic bias but as an active participant in its contestation and potential transformation.

## 4.3 Cyborg Identity and the Mask of the Avatar

Donna Haraway's [28] concept of the cyborg provides a powerful lens for understanding identity in *Overwatch*. A cyborg is a hybrid of human and machine, dissolving traditional boundaries between organism and technology. In online games, players inhabit avatars that function as masks—digital embodiments through which they negotiate identity, community, and performance.

In *Overwatch*, choosing a hero is not just a tactical move but also a form of self-presentation. The avatar becomes a mask that signals how a player wishes to be seen: powerful, supportive, aggressive, or adaptable. Yet these choices are constrained by both community norms and commercial structures. Default character designs often exaggerate gender stereotypes—male Tanks with hypermuscular bodies, female Supports with delicate frames. Players who resist these defaults can purchase alternative "skins," but this resistance comes at a financial cost, revealing how corporate logics intertwine with identity negotiation.

Similarly, *Baldur's Gate III* extends bodily representation to its character creator, allowing players to select genitalia for any race or gender configuration. While presented as a gesture of inclusivity, this design choice also exposes how digital systems codify cultural assumptions about sexuality and embodiment, transforming identity expression into a configurable algorithmic option [29].

The cyborg identity thus embodies both possibility and constraint. On one hand, it allows players to experiment with gendered and social roles in ways unavailable offline. On the other hand, it traps players within a marketplace of identity, where resisting stereotypes requires economic investment and emotional resilience.

The cyborg concept also helps us think about hybrid identities: the blending of human and digital selves. In games, players continuously negotiate between their embodied identity and the roles their avatars take on. For example, women who choose high-visibility roles in Overwatch, like Tanks, often become hyper-visible in doing so; their presence challenges norms but also subjects them to heightened scrutiny. This interplay between identity and visibility provides a bridge to understanding how these tensions manifest in lived experience.

The story of Kim "Geguri" Se-yeon offers a vivid case in point and demonstrates how these theoretical tensions-between embodiment and identity, visibility and constraint-manifest in lived experiences.

#### 4.4. The Case of Kim "Geguri" Se-veon

The career of Kim "Geguri" Se-yeon, the first woman to compete in the *Overwatch* League, illustrates how visibility, bias, and affect intersect in competitive play. In 2016, Geguri gained prominence for her exceptional skill with Zarya, a Tank hero. Her precision was so extraordinary that male professionals accused her of cheating, and one even promised to retire if she proved legitimate [24]. Another went further, threatening violence should her performance endanger his team's sponsorships. Under public pressure, Geguri was required to demonstrate her abilities in a monitored livestream, effectively standing trial for being too skilled while female. Her flawless performance silenced critics,

but the event reframed her achievement through gendered optics rather than merit.

Under intense scrutiny, Geguri was forced to demonstrate her abilities in a monitored livestream [30]. In effect, she was put on trial for the "crime" of being too skilled while female. She succeeded, proving beyond doubt that her skill was genuine. The accusations were retracted, and the incident made her a national figure. Afterward, media discourse recast Geguri as a "female pioneer" instead of a talented player. In interviews, she expressed discomfort with this symbolic role, stating: "Being looked up to because I am female, that is not how I want to be known." Even after joining the League, she resisted the label of "female player," seeking instead to be recognized for her evolution and skill [31]. Despite this resistance, coverage continued to emphasize gender over ability, turning her into an emblem rather than an individual [32].

Geguri's experience demonstrates how representational visibility transforms inclusion into an additional form of affective labor. Her skill granted entry into the system, but that inclusion required constant emotional regulation, balancing gratitude, resilience, and performance under scrutiny. The visibility meant to celebrate her difference simultaneously reproduced inequity, making her hyper-visible as proof of progress and invisible as a professional equal.

This dynamic mirrors patterns in higher education and other socio-technical systems, where marginalized individuals bear the dual burden of representation and performance. Like scholars from underrepresented backgrounds, Geguri was expected to personify systemic success while managing the emotional costs of symbolic inclusion. Her case reveals how systems that claim to celebrate diversity often re-inscribe bias through the very mechanisms designed to overcome it, stabilizing inequity through the emotional economies of recognition.

### 4.5. Emotional Regulation and the Winner-Loser Effect

Beyond role stereotypes, *Overwatch* research has demonstrated how emotions act as regulatory feedback mechanisms. Smith and Dukas [33] used *Overwatch* in controlled experiments to study the winner–loser effect in humans. They found that winners experienced elevated positive affect, persisted in play, and preferred immediate rematches. Losers, by contrast, experienced heightened negative affect and adopted avoidance strategies such as switching to different games or waiting for new opponents.

The emotional cycles described by Smith and Dukas mirror the affective dynamics experienced by players like Geguri, whose own success and failure are both overdetermined by gendered expectations. In both contexts, emotion serves as a feedback signal–regulating participation, shaping identity, and reproducing inequity within the system.

These findings reveal how competitive systems use affect as a cybernetic regulator, channeling players toward persistence or withdrawal. When combined with gendered stereotypes, the result is compounded inequity: marginalized players experience both systemic bias in role distribution and affective penalties from the competitive environment. This dual regulation, either by stereotype or by mood, makes resistance costly and reinforces systemic inequities.

## 4.6. Synthesis of the Micro Analysis

At the micro level, *Overwatch* reveals how systemic inequities are enacted in the most intimate of decisions: choosing a role in a match. What appears to be a tactical decision is in fact a negotiation with social norms, emotional feedback, and systemic constraints. The Tank, DPS, and Support roles are not neutral but gendered archetypes. The avatar is not simply a digital tool but a

cyborg mask through which identity is both expressed and constrained. The player is not just competing for victory but navigating a feedback system that rewards conformity and punishes resistance.

These dynamics extend beyond the game. They mirror how students, faculty, and professionals negotiate roles within higher education. Just as Tanks and Supports carry symbolic weight in games, roles in academia: leader, collaborator, critic, caretaker, etc., are differentially valued, often along gendered and cultural lines. The emotional toll of resisting these hierarchies is significant, producing both hypervisibility and erasure.

In this way, the micro-level case study of *Overwatch* connects directly to the macro and meso analyses. It demonstrates that systemic inequities are not abstract principles but lived experiences enacted through feedback loops at multiple scales. These intertwined dynamics—between identity, emotion, and system feedback—constitute the micro-level expression of the Bias Feedback Loop, demonstrating how inequity is continually produced and experienced through interaction.

#### 5. CLOSING SYNTHESIS

The three levels of analysis: 1) macro, 2) meso, and 3) micro, together demonstrate how systemic inequities are reproduced across domains that may appear distant but are structurally aligned. At the macro level, global higher education illustrates how the promise of inclusion and cross-border knowledge exchange often collapses into regression toward standardized, militarized, and siloed practices. These practices reward compliance, silence dissent, and stabilize inequities through systemic feedback loops. At the meso level, game studies reveal how design and community behavior mirror these dynamics. Games often replicate exclusionary tropes, reward toxic play, and valorize "winning at any cost" over collaboration [13]. At the micro level, *Overwatch* provides a detailed case study of how these systemic dynamics manifest in role choice, identity negotiation, and emotional regulation.

The Bias Feedback Loop offers a unifying framework for analyzing these dynamics. It describes how inequities are replicated in design, reflected as natural, rewarded through community practices, and reinforced across social contexts. This loop demonstrates that inequity is not an incidental flaw of systems but a predictable outcome of how systems are designed and maintained. By applying the same model to both higher education and games, we show that the logics of inequity are not confined to one domain but operate as general systemic properties.

#### 5.1. Overwatch as a Transferable Model

The case of *Overwatch* role choice exemplifies how bias becomes stabilized through systemic feedback. Roles are designed to be interdependent, yet social norms impose hierarchies of value: DPS as the visible stars, Tanks as leaders, and Supports as invisible caregivers. Women and marginalized players who resist stereotypes, by taking on Tanks or visible roles, face harsher scrutiny, while men who adopt Support roles encounter stigmatization [24]. Emotional dynamics compound these inequities, as the winner—loser effect demonstrates how mood regulates persistence and withdrawal. The result is a double penalty for marginalized players: systemic bias in role valuation and affective penalties in competitive play.

This model translates directly to higher education. Just as *Overwatch* players negotiate roles with symbolic weight, students and faculty navigate academic roles: leader,

collaborator, caretaker, critic, etc., that are unequally valued. Marginalized scholars face hypervisibility when they deviate from expected roles and erasure when they succeed. Like games, universities reproduce inequity not only through design but also through affective regulation: who feels welcomed, who feels discouraged, who persists, and who withdraws.

By framing *Overwatch* as a systemic laboratory, we can see how role choice is not trivial but a microcosm of broader inequities. The negotiation of identity, emotion, and norms within a match offers a transferable model for understanding how inequities stabilize in education, organizations, and other socio-technical systems.

#### 5.2. Resistance and Reimagination

Despite these inequities, both games and education offer opportunities for resistance and reimagination. In *Overwatch*, players can subvert stereotypes by choosing roles or avatars that defy community expectations. Haraway's notion of the cyborg identity captures this potential: the ability to inhabit hybrid digital-human identities that reconfigure traditional categories. Yet resistance is costly. Players often pay emotional or financial prices—whether through increased scrutiny, harassment, or purchasing alternative avatars. Similarly, in higher education, students and faculty who resist normative roles incur additional burdens, from being labeled disruptive to carrying the weight of representation.

Nevertheless, resistance matters. Every act of deviation from stereotypes destabilizes the Bias Feedback Loop, creating possibilities for systemic transformation. This echoes cybernetic theories of system change: minor perturbations can, under the right conditions, shift systemic equilibria [34], [35]. In both education and games, the challenge is to design systems where such resistance is not punished but rewarded.

#### 5.3. Toward Systemic Redesign

The central lesson is that equity cannot be assumed to emerge naturally from progressive design; it must be deliberately engineered into system architecture. This means rethinking reward structures so that collaboration, care, and equity are valued alongside or above dominance and compliance. In games, this could involve redesigning scoring systems to make supportive contributions as visible and celebrated as eliminations. In education, it could mean restructuring evaluation metrics so that mentorship, collaboration, and interdisciplinary research initiatives are rewarded as much as individual research prestige.

These interventions embody a cybernetic understanding of change: to transform outcomes, one must alter feedback, not merely attitudes. Systemic redesign requires acknowledging that bias operates as an emergent property of information flow and reward logic. Breaking these loops demands interventions at multiple levels: design, community norms, and reward structures. The Bias Feedback Loop thus becomes not only an analytic tool but also a design heuristic: a guide for identifying where inequities are replicated, reflected, rewarded, and reinforced—and for imagining how to interrupt these cycles.

## 6. POLICY-DRIVEN VS. COMMUNITY-DRIVEN SYSTEMIC CHANGE

An organization can address bias through either a **policy-based** or a **community-based** approach, which differ in scope, focus, and methodology. A community-based approach targets bias through cultural change and interpersonal relationships, while a

policy-based approach implements standardized, top-down rules to enforce fairness. The combination of both is often the most effective strategy. Policies can establish standards, and community engagement can build trust. The presence of strong anti-bias policies gives credibility to community-led discussions by signaling a genuine institutional commitment to equity.

A policy-based approach can address structural inequities, while a community-based approach targets interpersonal ones. For example, standardized hiring processes can reduce systemic bias, whereas workshops and employee resource groups (ERGs) can address microaggressions in daily interactions. Data from policy implementation can also inform community dialogue. Regular audits of promotion rates or pay equity provide tangible evidence for ERGs and community forums to analyze and identify areas of concern

**Emergent norms** differ from systemic rules and policies in origin, nature, and enforcement. They arise spontaneously from social interaction, while systemic policies are deliberately created and enforced by formal institutions. Emergent norms can combat sexism and toxicity by cultivating positive behaviors through proactive modeling and consistent reinforcement, rather than reliance on authority. Unlike inherited norms, which often perpetuate bias, emergent norms are constructed by group members themselves through participation and repetition.

An emergent norm develops organically through group dynamics and can be intentionally cultivated to counter harmful biases. A successful strategy involves these stages:

- Identify positive deviants. Locate individuals who already resist sexist or exclusionary norms, even subtly. These "positive deviants" may model inclusive behavior that contradicts prevailing expectations.
- Provide a platform for these voices. Elevate the visibility
  and influence of positive deviants by amplifying their
  contributions (for example, through pinned messages or
  moderator recognition) and by formalizing roles such as
  peer mentors or community moderators.
- Encourage public declarations. Offer members the chance to support new, inclusive norms publicly. Creating "community agreements" or public pledges increases awareness that others share these evolving attitudes.
- Involve men and boys as allies. In communities where sexism persists, engaging men as advocates for equality is essential. Educational initiatives that address restrictive gender roles and encourage equitable participation can accelerate change.
- Model and reinforce change. Leaders and influential members must consistently demonstrate the desired behavior, set a respectful tone, intervene when harassment occurs, and reward positive interaction. Over time, the collective understanding of acceptable behavior solidifies.

In higher education and society at large, private norms and socially accepted stereotypes influence small-group behavior, both in person and in digital spaces such as video games, forums, and online communities. Change at this level cannot be legislated through policy alone, yet it cannot be left to personal preference. Driving emergent norms within communities is essential to foster equity and dismantle bias.

Unfortunately, profit motives and self-serving behavior often create conditions where bias can thrive and even be rewarded. Bias is not a one-time problem to be solved but a persistent system dynamic that requires continuous attention. As we operate across disciplines, cultures, and societies, negotiating a shared set of norms and cultivating emergent ones remain complex challenges. Sustainable change requires both

community-driven and policy-driven approaches working in concert to align structure and culture toward equity.

## 7. FUTURE DIRECTIONS

The first step forward is comparative research. While *Overwatch* offers a rich case study, the Bias Feedback Loop should be tested in other socio-technical environments to evaluate its generalizability. Within games, this means extending analysis to titles such as *League of Legends* [36], *Valorant* [37], or *Apex Legends* [38], where role structures and community norms differ but competitive dynamics remain. Comparative work can identify whether the exact replication–reflection–reward–reinforcement cycle persists across different design logics and cultural contexts.

In education, a similar evaluation is necessary. Do the same patterns hold in institutions with different funding models, cultural traditions, or ranking pressures? For instance, comparing elite research universities with open-access institutions could reveal how systemic inequities are stabilized or disrupted under different reward structures. Cross-system comparisons allow scholars to map how design, affect, and social norms interact to produce or mitigate inequity.

#### 7.1. Interventions in Design and Reward Structures

If systemic feedback loops stabilize inequity, interventions must target the points where these loops reinforce themselves. In games, this means redesigning reward systems to elevate the value of support and collaborative roles. Rather than focusing exclusively on kill counts or damage dealt, systems could highlight metrics of care (e.i, healing, coordination, and protection) as equally visible indicators of success. These interventions would shift community perception, rebalancing symbolic hierarchies of role value.

In higher education, analogous interventions include revising promotion and tenure criteria to prioritize mentorship, collaboration, interdisciplinary research, and community engagement alongside publications and grants. By redesigning the reward architecture, institutions could break the cycle in which prestige is valued above equity. Both in games and in education, changing what is counted and celebrated changes what is pursued.

## 7.2. Applied Practice and Policy

Beyond research and design, applied practice is essential. eSports organizations, game developers, and universities can serve as design laboratories where systemic interventions are tested and refined. For developers, this might involve piloting alternative scoring systems, experimenting with toxicity reduction through restorative practices, or rebalancing role visibility. For universities, it could mean developing systemic indicators of equity impact, designing collaborative evaluation frameworks, and incorporating systemic equity goals into accreditation processes.

Policy makers also have a role to play. Regulations governing loot boxes, microtransactions, and predatory monetization practices already show how external interventions can reshape system incentives. Similarly, educational policy can mandate equity reporting, require inclusive evaluation metrics, or incentivize institutions to adopt systemic redesigns. The goal in both contexts is the same: to make equity a systemically rewarded behavior rather than an incidental byproduct.

#### 7.3. Transdisciplinary Collaboration

WMSCI emphasizes transdisciplinary communication, and the Bias Feedback Loop provides a bridge for such collaboration. Game scholars, educators, cyberneticists, and policy makers can converge on a shared vocabulary for analyzing how inequity emerges in systems. By sharing models across fields, we not only enrich theoretical understanding but also develop practical tools for intervention. The loop thus becomes both a diagnostic and a heuristic: a way of identifying where inequity is encoded and how it can be disrupted.

#### 7.4. Meta Collaboration

While transdisciplinary collaboration connects distinct fields through shared vocabulary and frameworks, *meta collaboration* operates at a higher systemic layer: the reflexive coordination of collaboration itself. In team-based games such as *Overwatch*, collaboration is not static but algorithmically evaluated through performance metrics. After each match, the system designates a "Player of the Game" or Most Valuable Player (MVP), determined through hidden algorithms that weigh variables such as kill-to-death ratio, damage dealt, healing provided, or objective time. This automated feedback loop quantifies contribution and defines success according to system logic, creating an *algorithmic win* that reinforces what the system values: visible efficiency, not necessarily invisible teamwork.

Meta collaboration begins when players collectively reflect on how these feedback mechanisms shape behavior: when they ask whether the algorithm rewards dominance over coordination, or whether redistributing roles could better serve the collective outcome. For instance, if a single tank underperforms, teammates may decide whether to persist with that strategy or reallocate responsibility. This reflexive awareness transforms play into a laboratory for systemic adaptation.

By contrast, in most educational and institutional environments, the feedback architecture for group work remains underdeveloped. Educators and administrators are often so far removed from the collaborative process that meaningful evaluation never occurs. Group projects are graded individually or superficially, ignoring the emergent dynamics of teamwork: the very qualities that define meta collaboration. In this sense, games like *Overwatch* provide a more immediate and transparent feedback system than academia: they continuously measure, evaluate, and display performance, even if imperfectly. Translating such reflexive mechanisms into education could foster more equitable systems of evaluation, where collective learning, not isolated performance, becomes the accurate measure of success.

### 7.5. Final Reflection

The central lesson is that equity must be designed into systems. Whether in *Overwatch* or in global higher education, the problem is not merely individual prejudice but systemic reward structures that normalize bias. By examining how players negotiate identity, emotion, and social norms through role choice, we can see clearly how feedback loops stabilize inequity. The challenge for researchers, designers, and educators is to interrupt these loops and to engineer systems where collaboration, care, and equity are rewarded as visibly and tangibly as dominance and compliance.

In this sense, *Overwatch* is more than a game. It is a systemic laboratory, a microcosm that models the challenges and possibilities of designing equitable systems. By learning from its dynamics, we can better understand how to reimagine not only play but also education and society itself.

While this study emphasizes systemic redesign, it is essential to acknowledge the emotional and structural resistance that accompanies such transformation. As Dr. Ekaterini Nikolarea observes, gender bias is deeply embedded within both social and economic infrastructures, sustained by audiences and markets that often equate bias with profitability. Efforts toward equity can therefore provoke defensive reactions or commercial losses, transforming not only a design challenge but also a collective act of courage. The case of Geguri underscores this paradox: visibility and excellence expose individuals to the very forces they resist, revealing how systems can "crash" personal identity under the weight of societal expectation. This tension is equally present in higher education, where enclaves of mediocrity and conformity can isolate innovators. Genuine systemic change thus depends on collective resistance ("united we stand") that opposes fragmentation and cultivates shared accountability for equity across design, scholarship, and community practice [39].

#### 8. CONCLUSION

By situating *Overwatch* role choice within the broader systemic dynamics of higher education and game studies, this paper demonstrates how transdisciplinary communication reveals the shared logic of inequity across socio-technical systems. Universities and online games, though distinct in form, operate through similar architectures of design, reward, and community feedback. Both promise inclusion yet reward conformity; both celebrate diversity rhetorically while stabilizing inequity through systemic incentives. The central inquiry, how the lessons of player choice in *Overwatch* can inform global higher education, finds its answer in the Bias Feedback Loop.

The Bias Feedback Loop provides a transferable framework for understanding how inequity becomes self-reinforcing. Systems replicate stereotypes through their design, reflect them as natural hierarchies, reward compliant behavior, and reinforce exclusion through cycles of recognition and omission. These feedback mechanisms operate not only in games and education but across organizations, technologies, and policies. Addressing inequity, therefore, requires systemic interventions that alter the flow of feedback, not merely changes in attitude or representation.

Overwatch serves as a microcosm of this systemic logic. Role selection functions as a form of social performance in which identity, emotion, and expectation converge. The clustering of women in Support roles and the punitive scrutiny faced by women Tanks illustrate how bias is experienced and reproduced through moment-to-moment interaction. The case of Kim "Geguri" Se-yeon shows how visibility and representation, often framed as progress, can impose new forms of emotional labor. These dynamics are mirrored in higher education, where marginalized faculty and students face hypervisibility, overwork, and erasure within institutional feedback systems.

The comparison between games and education demonstrates that bias is not an incidental malfunction but an emergent property of system design. To achieve equity, systems must be redesigned so that collaboration, care, and inclusion are not ancillary but central to their architecture. In games, this might mean revaluing supportive play and rebalancing visibility metrics; in education, it means revising evaluation criteria, reward structures, and leadership norms to align equity with excellence.

Ultimately, the goal is to build systems where feedback fosters adaptation rather than conformity. Equity must be treated as a design principle, not a corrective measure. The transdisciplinary framework developed here invites educators, designers, and policymakers to view bias not as a moral flaw but as a systemic

signal that can be measured, modeled, and reengineered. By learning from the affective and structural patterns observed in *Overwatch*, we can better design institutions that reward empathy, collaboration, and shared growth.

In this sense, *Overwatch* is more than a game. It is a laboratory for systemic empathy, a space where the mechanics of inclusion and exclusion can be observed, tested, and reimagined. Through the lens of transdisciplinary communication, such spaces provide not only critique but also pathways for building the equitable systems that our societies aspire to achieve.

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No conflict of interest pertains to the research presented above.

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## 10. REFERENCES

- [1] S. Marginson, "The Worldwide Trend to High Participation Higher Education: Dynamics of Social Stratification in Inclusive Systems," *High. Educ.*, vol. 72, no. 4, pp. 413–434, Oct. 2016, doi: 10.1007/s10734-016-0016-x.
- [2] S. L. Nichols, D. C. Berliner, and N. Noddings, Collateral Damage: How High-Stakes Testing Corrupts America's Schools. Cambridge, Mass, 2007.
- [3] S. Beer, "The Viable System Model: Its Provenance, Development, Methodology and Pathology," *J. Oper. Res. Soc.*, vol. 35, no. 1, pp. 7–25, Jan. 1984, doi: 10.1057/jors.1984.2.
- [4] P. G. Altbach and J. Knight, "The Internationalization of Higher Education: Motivations and Realities," *J. Stud. Int. Educ.*, vol. 11, no. 3–4, pp. 290–305, Sep. 2007, doi: 10.1177/1028315307303542.
- [5] D. McVitty, "Institutional silos are making it harder to build learning environments for student success," Wonkhe. Accessed: Oct. 14, 2025. [Online]. Available: https://wonkhe.com/blogs/institutional-silos-are-makingit-harder-to-build-learning-environments-for-studentsuccess/

- [6] A. Lehti, "Standardized Obedience: The Suppression of Critical Thinking, Innovation, and Creativity in Worldwide Conformity-Driven Education Systems," Nov. 2024, doi: 10.6084/m9.figshare.28015913.
- [7] M. Thompson, "Character Design of Overwatch," Bachelor's thesis, University of Applied Sciences, 2025. Accessed: Oct. 14, 2025. [Online]. Available: http://www.theseus.fi/handle/10024/894754
- [8] K. Graft, "How Overwatch's bleak beginnings turned into positivity and inclusiveness," Game Developer. Accessed: Oct. 14, 2025. [Online]. Available: https://www.gamedeveloper.com/design/how-ioverwatch-i-s-bleak-beginnings-turned-into-positivityand-inclusiveness
- [9] B. E. López Pérez et al., Videojuegos y Lenguaje, 1st ed. México: Universidad Autónoma Metropolitana, 2022.
- [10] K. L. Gray and A. Sarkeesian, Intersectional Tech: Black Users in Digital Gaming, 1st ed. Baton Rouge: LSU Press, 2020.
- [11] A. Shaw, Gaming at the Edge: Sexuality and Gender at the Margins of Gamer Culture, 1st ed. Minneapolis: University of Minnesota Press, 2015.
- [12] M. Consalvo, "Confronting toxic gamer culture: A challenge for feminist game studies scholars," Nov. 2012, Accessed: Aug. 28, 2025. [Online]. Available: https://hdl.handle.net/1794/26289
- [13] T. Lynch, J. E. Tompkins, I. I. van Driel, and N. Fritz, "Sexy, Strong, and Secondary: A Content Analysis of Female Characters in Video Games across 31 Years," *J. Commun.*, vol. 66, no. 4, pp. 564–584, Aug. 2016, doi: 10.1111/jcom.12237.
- [14] S. Nakaue, "File:Princess Peach Stock Art.png," Wikipedia. Wikipedia, Sep. 05, 2024. Accessed: Oct. 14, 2025. [Online]. Available: https://en.wikipedia.org/w/index.php?title=File:Princess \_Peach\_Stock\_Art.png&oldid=1244203490
- [15] J. H. Kuznekoff and L. M. Rose, "Communication in Multiplayer Gaming: Examining Player Responses to Gender Cues," New Media Soc., vol. 15, no. 4, pp. 541– 556, Jun. 2013, doi: 10.1177/1461444812458271.
- [16] G. Hofstede, G. J. Hofstede, and M. Minkov, Cultures and Organizations, Third Edition: Software of the Mind, 3ra Edición. McGraw Hill, 2010.
- [17] F. Noorbehbahani and F. Salehi, "A serious game to extract Hofstede's cultural dimensions at the individual level," *User Modeling and User-Adapted Interaction*, vol. 31, no. 2. Springer Science and Business Media B.V., pp. 225–259, 2021. doi: 10.1007/s11257-020-09280-6.
- [18] D. Sacco, "59% of women gamers say they adopt a nongendered or male identity to avoid harassment while playing online," Esports News UK. Accessed: Oct. 07, 2025. [Online]. Available: https://esportsnews.co.uk/2021/05/25/women-play-video-gamesonline-mask-gender-harassment/
- [19] Y. Zhou and Z. D. Peterson, "Women's Experiences of Sexual Harassment in Online Gaming," *Violence Women*, vol. 31, no. 8, pp. 2037–2052, Jun. 2025, doi: 10.1177/10778012241252021.
- [20] L. H. Trudgett-Klose and S. S. McLinton, "Pro Gamers' & Cyberbullying: Workplace bullying & sexual harassment in professional video gaming," *Entertain. Comput.*, vol. 50, p. 100702, May 2024, doi: 10.1016/j.entcom.2024.100702.

- [21] D. J. Kuss and S. K. Vadapalli, "A Systematic Review of the Current State and Challenges to the Representation of Women in Esports," *Discov. Psychol.*, vol. 5, no. 1, p. 51, Jul. 2025, doi: 10.1007/s44202-025-00387-8.
- [22] O. Ruvalcaba, J. Shulze, A. Kim, S. Berzenski, and M. Otten, "Women's Experiences in eSports: Gendered Differences in Peer and Spectator Feedback During Competitive Video Game Play," J. Sport Soc. Issues, vol. 42, p. 019372351877328, May 2018, doi: 10.1177/0193723518773287.
- [23] J. Kaplan, C. Metzen, and A. Keller, *Overwatch (video game)*. (May 24, 2016). Blizzard Entertainment.
- [24] R. J. Zhou, Y. Gao, and Q. Han, "Study of Gender-based Playing Style Stereotype in Overwatch using Machine Learning Analysis," J. Phys. Conf. Ser., vol. 1883, no. 1, pp. 12028-, 2021, doi: 10.1088/1742-6596/1883/1/012028.
- [25] R. Trepanowski, S. Laato, D. Drążkowski, J. Hamari, and Z. Kopeć, "Sexism in Esports: How Male and Female Players Evaluate Each Others' Performance and Agency," *Comput. Hum. Behav.*, vol. 161, p. 108415, Dec. 2024, doi: 10.1016/j.chb.2024.108415.
- [26] A. H. Eagly and S. J. Karau, "Role Congruity Theory of Prejudice Toward Female Leaders," *Psychol. Rev.*, vol. 109, no. 3, pp. 573–598, 2002, doi: 10.1037/0033-295X.109.3.573.
- [27] N. V. Montgomery and A. P. Cowen, "How Leader Gender Influences External Audience Response to Organizational Failures," *J. Pers. Soc. Psychol.*, vol. 118, no. 4, pp. 639–660, Apr. 2020, doi: 10.1037/pspa0000176.
- [28] D. J. Haraway, "A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century," in *Manifestly Haraway*, D. J. Haraway and C. Wolfe, Eds., University of Minnesota Press, 2016, p. 0. doi: 10.5749/minnesota/9780816650477.003.0001.
- [29] G. Foster, "Baldur's Gate 3 Lore Reveals How Dragonborn Privates Work," TheGamer. Accessed: Oct. 14, 2025. [Online]. Available: https://www.thegamer.com/baldurs-gate-3-dragonborn-anatomy-privates-downstairs-lore-tay-rituals/
- [30] Y. Choi, J. S. Slaker, and N. Ahmad, "Deep strike: playing gender in the world of *Overwatch* and the case of Geguri," *Fem. Media Stud.*, vol. 20, no. 8, pp. 1128– 1143, Nov. 2020, doi: 10.1080/14680777.2019.1643388.
- [31] M. Kimes, "Esports is dominated by men. Can a 17-year-old Korean girl change that?," ESPN.com. Accessed: Oct. 07, 2025. [Online]. Available: https://www.espn.com/espn/feature/story/\_/id/20692051/how-teenage-gamer-became-reluctant-icon-south-korea-feminist-movement
- [32] S. Morrison, "Like it or not, Geguri remains a standard-bearer," ESPN.com. Accessed: Oct. 07, 2025. [Online]. Available: https://www.espn.com/esports/story/\_/id/22911233/a-reluctant-icon-kim-geguri-se-yeon-becomes-overwatch-league-standard-bearer
- [33] N. M. T. Smith and R. Dukas, "Adaptive significance of winner and loser effects: rank-dependent optimal behaviour," *Anim. Behav.*, vol. 223, p. 123184, May 2025, doi: 10.1016/j.anbehav.2025.123184.
- [34] R. M. Martey, J. Stromer-Galley, J. Banks, J. Wu, and M. Consalvo, "The Strategic Female: Gender-Switching and Player Behavior in Online Games," *Inf. Commun.*

- Soc., vol. 17, no. 3, pp. 286–300, Mar. 2014, doi: 10.1080/1369118X.2013.874493.
- [35] R. A. Ratan, J. A. Fordham, A. P. Leith, and D. Williams, "Women Keep it Real: Avatar Gender Choice in *League of Legends*," *Cyberpsychology Behav. Soc. Netw.*, vol. 22, no. 4, pp. 254–257, Apr. 2019, doi: 10.1089/cyber.2018.0302.
- [36] A. van Roon and J. Jew, League of Legends (video game). (Oct. 27, 2009). Riot Games. Accessed: Oct. 10, 2025. [Windows, OS X]. Available: https://www.leagueoflegends.com/en-us/
- [37] D. Nottingham, A. Ho, and J. Ziegler, Valorant (video game). (Jan. 02, 2020). Riot Games. Accessed: Oct. 10, 2025. [Windows, PlayStation 5, Xbox Series X/S]. Available: https://playvalorant.com/en-us/
- [38] S. Ferreira, B. Brinkman, and J. McCord, Apex Legends (video game). (Feb. 04, 2019). Electronic Arts. Accessed: Oct. 05, 2025. [PS4, Windows, Xbox One]. Available: https://www.ea.com/games/apex-legends/apex-legends
- [39] E. Nikolarea, "Why Is Transdisciplinarity So Difficult?," presented at the Proceedings of the 29th World Multi-Conference on Systemics, Cybernetics and Informatics: WMSCI 2025, Orlando Florida USA, Sep. 11, 2025.