Multiple Identities in Online Games: Hierarchies and Identification Mechanisms

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ABSTRACT
Identity construction in online games has garnered increasing academic attention due to its critical role in shaping player behaviour and enriching gaming experiences.This paper proposes a comprehensive theoretical framework for understanding identity construction in online games, addressing a gap in fragmented and conceptually inconsistent literature. Drawing from identity theory, social identity theory, IT identity, and media character identification, the study conceptualizes a hierarchical model of in-game identity across three levels: individual (avatar and brand-based game identification), material (technical game identification), and group (community and gamer identification). For each identity type, the paper outlines distinct psychological and cognitive mechanisms that guide identification processes. This integrative framework offers a foundation for future empirical research and provides practical guidance for game design, governance, and cultural policy in digital gaming environments.

Keywords: *In-game identity construction, Avatar identification, Game identification, Gamer identity.*

1. INTRODUCTION

Online games, characterized by immersive virtual environments and diverse social interaction mechanisms, have evolved into a vital medium of interactive entertainment in modern society. Socially, they function as "virtual third places" (Steinkuehler & Williams, 2006) offering players the freedom to transcend real-world constraints and explore or express multiple facets of the self.

Within these digital environments, players engage in identity exploration and expression through role-playing, personalized avatar customization, relationship-building, and community participation. Such identity construction not only enhances immersion but also significantly shapes player behavior. For instance, community identification can foster a sense of belonging and promote sustained engagement and virtual consumption (Shukla & Drennan, 2018). The Proteus Effect demonstrates how avatar identification can enhance the perceived realism of the game environment and facilitate flow experiences (Zhang et al., 2024). However, identity identification in games also entails potential risks—violent character identification may escalate aggressive behavior, while overreliance on virtual identities may lead to gaming addiction (Zhong & Yao, 2013).

Consequently, identity has emerged as a pivotal issue in online game research, attracting increasing attention from both academia and industry. While previous studies have explored various dimensions of game-related identity, the overall landscape remains fragmented. Many works focus on specific identity facets, such as community identification (Badrinarayanan et al., 2015)or avatar identification (Teng et al., 2023). This has resulted in a lack of a comprehensive understanding of the hierarchical structure of identity in online games and has led to conceptual ambiguities. For example, existing literature often adopts diverse theoretical approaches—viewing games either as information technologies or as branded content—but rarely distinguishes clearly between the types of identity they generate, hindering the accumulation of coherent knowledge.

Existing research lacks a thorough analysis of the mechanisms underlying identity at different levels and how these identities influence player behavior. This paper seeks to address these gaps by constructing a comprehensive theoretical framework for understanding identity in online games. Specifically, it explores the following research questions: 1) What is the hierarchical structure of identity within online games? 2) What identification mechanisms operate at each level of this structure? 3) How do these identities influence players' subsequent gaming behaviors?

To answer these questions, this study first reviews identity-related theories from a social psychological perspective and synthesizes relevant research on identity in gaming. It then proposes a multi-layered structure of identity in online games and identifies distinct mechanisms of identification associated with each layer. Finally, it analyzes how these identity levels influence behavioral outcomes, providing theoretical guidance for future research.

The contributions of this paper are twofold. First, it systematically synthesizes identity-related research in online gaming and proposes an integrated hierarchical structure of game-related identity. This structure clarifies the analytical pathways and theoretical foundations for studying identity in gaming, and helps differentiate between various forms of identity. Second, by analyzing identification mechanisms across levels, the paper reveals the diversity and complexity of identity formation in online games, offering clear theoretical perspectives and starting points for future investigations.

2. THE HIERARCHICAL STRUCTURE OF IDENTITY IN ONLINE GAMES

2.1 Identity Theories in Social Psychology

Within the realm of social psychology, identity refers to an individual's explicit or implicit understanding and cognition of the self when addressing the fundamental question, "Who am I?" (Vignoles et al., 2011). These understandings define the meanings associated with individuals as persons, role occupants, and group members (Burke, 2004). Identity is widely regarded as a multidimensional construct (Côté & Levine, 2002), and individuals form and interpret their identities through four primary pathways: by focusing on their personal uniqueness, their interpersonal relationships, their group memberships, and their connections to material entities (Dittmar, 2011; Sedikides et al., 2011).

These four pathways give rise to corresponding dimensions and analytical levels of identity: individual identity, relational identity, collective identity, and material identity (Carter & Grover, 2015; Dittmar, 2011; Sedikides & Brewer, 2001; Vignoles et al., 2011). Specifically: 1) Individual identity emphasizes the personal attributes that distinguish one from others, such as traits, goals, desires, experiences, interests, and behaviors; 2) Relational identity centers on attributes shared with significant others within interpersonal relationships and role positions (e.g., as family members, partners, or friends); 3) Collective identity pertains to group membership and focuses on the attributes shared among in-group members that differentiate them from out-groups; 4) Material identity (or the material self) involves the self's relationship with physical objects and possessions (Dittmar, 2011; Hogg et al., 1995; Sedikides & Brewer, 2001; Stets & Burke, 2000; Tajfel & Turner, 1985; Triandis, 1989).

As research into the various dimensions of identity has evolved, scholars have developed a rich body of theory that reflects the diversity of identity constructs and mechanisms (Schwartz et al., 2011). These include: identity theory, self-identity theory, role identity theory, social identity theory, organizational identity, brand identity theory, IT-related identity theory, and virtual character identification in media studies, among others. While these theoretical approaches differ in perspective and methodological emphasis, they are not inherently incompatible. As Jan Stets and Peter Burke noted in their comparative work on identity theory and social identity theory, "The differences among identity theories lie in the aspects of self-concept they emphasize; integrating these perspectives enables a more comprehensive understanding of the self" (Stets & Burke, 2000).

Accordingly, identity-related theories—though focused on different aspects—share a core conceptual mechanism: they view individuals as capable of reflexively categorizing themselves or anchoring their identity definitions to a particular referent (Reed et al., 2012; Stets & Burke, 2000). This process is referred to as self-categorization in identity theory and as identification in social identity theory (Stets & Burke, 2000). It is precisely the focus on different referents and classification processes that has given rise to various types and levels of identity research within the literature.

Building on this foundation, the present study examines identity construction in online games by categorizing identity levels based on the nature of the referents to which identities are anchored. In doing so, it adopts a layered identity framework grounded in relevant identity theories to explore the mechanisms and implications of each type of identity within gaming environments (see Table 1).

2.2 The Hierarchical Structure of Identity in Online Games

Based on a systematic review of existing studies on identity in online games, this paper identifies four major types of identity that have been the focus of previous literature: avatar identification, game identification, community identification, and gamer identification (Looy et al., 2010; Wang et al., 2022). These studies are primarily situated within the fields of information systems and media psychology, with discussions of identity framed largely from a social psychological perspective (Klimmt et al., 2010; Suh et al., 2011).

Table 1. The hierarchical structure of identity in online games

Identity Level Identity Type	Individual Level Avatar Identification	Material Level Game Identification (Information system)	Individual Level Game Identification (Brand)	Group Level Game Identification (Social)	Group Level Community Identification	Group Leve Gamer Identification
Referent Object	Player-controlled character or object representing the self in the game	Game as an information technology or system	Game as a branded digital product	Players of a specific game title	Formal or informal groups within the game	Abstract social category of "gamer"
Theoretical Foundation	Media character identification, social identity theory	Material identity, IT identity	Brand identity theory	Organizational identity, brand identity theory	Social identity theory, self-categorization theory	Self-categorization theory
Examples	Game heroes or characters	Game applications, software, hardware	Game franchises or branded series	Player base of a specific game	Guilds, teams, game communities, brand communities	The general category of game players

2.2.1 Avatar identification

In the computer-simulated environments constructed by video games, users "enter" the virtual world by controlling a media character that represents themselves — the avatar — and engage in various activities such as combat, entertainment, social interaction, self-expression, environmental modification, and the use of virtual items (Downs et al., 2019). Depending on theoretical orientation and research context, the existing literature has proposed three conceptual pathways for understanding avatar identification.

The first conceptualization is rooted in media character identification theory and adopts the perspective of "the avatar as the self." From this view, avatar identification is defined as "a state in which players become deeply engrossed and emotionally elevated during media engagement, experiencing a temporary shift in self-concept through the emotional and cognitive assimilation of certain avatar characteristics" "(Hefner et al., 2007; Klimmt et al., 2009). This conceptual path treats avatar identification as a unified relationship—players no longer perceive their avatars from an external, evaluative stance (e.g., empathy, pity, or moral judgment, which characterize dyadic relationships), but rather experience a cognitive and emotional merging with the avatar (Cohen, 2001). When such identification occurs, players report heightened immersion, as if the events unfolding in the game were happening to themselves (Klimmt et al., 2009). Relevant studies often conceptualize avatar identification as a multidimensional construct, typically measured using one of two widely accepted frameworks: (1) a three-dimensional structure consisting of similarity identification, wishful identification, and embodied

presence (Van Looy et al., 2012); (2) a four-dimensional structure comprising emotional experience, absorption, positive attitudes, and the importance of the avatar to one's self-concept (Li et al., 2013).

The second conceptualization also draws on media character identification theory (Cohen, 2001) as well as psychological ownership theory (Moon et al., 2013), and adopts the perspective of "the avatar as an extension of the self." From this view, avatar identification is defined as "the extent to which individuals perceive the avatar as an extension of their identity and body." This pathway emphasizes a symbiotic relationship between player and avatar, where the incorporation of the avatar into the self-concept enables players to extend their sense of self and embodiment into the virtual space. In open-world games like Minecraft, for example, players can fully customize their avatars' appearance and abilities (e.g., taking on roles such as doctor or scientist), using them to symbolically express personal identity traits or to pursue goals not yet realized in the real world. This extensional quality of avatar identity allows players to transcend real-world limitations and achieve self-expansion within the virtual domain.

The third conceptualization is grounded in social identity theory (Tajfel & Turner, 1985)and organizational identity theory(Ashforth & Mael, 1989), and views the avatar as a surrogate self—"the avatar as a substitute for the self." Here, avatar identification is defined as "the extent to which individuals perceive the avatar as belonging to the same social category as themselves." In this view, the avatar serves as a social reference for defining the self, and identification occurs through the process of categorizing both the avatar and the self into the same identity group. This perspective highlights the avatar's symbolic role as a marker of group affiliation, reinforcing the psychological bond between player and avatar through mechanisms of group identification.

Although the three conceptualizations of avatar identification differ in their theoretical orientations and definitional nuances, they collectively reflect two fundamental principles that underlie the formation of avatar identity. The first is the internalization and assimilation of perceived attributes. During gameplay, individuals interact with their avatars and perceive various external features, internal values, symbolic meanings, and associated social categories. These perceptions are then internalized—either consciously or unconsciously—into the individual's self-concept, shaping how they define themselves within and beyond the gaming context. The second principle is the integration of the self with the avatar. Individuals cognitively and emotionally merge with their avatars, treating them as a substitute self (Suh et al., 2011), an extended self (Teng, 2019), or a merged self (Van Looy et al., 2012). Through this integration, the boundary between the self and the avatar becomes blurred, resulting in a unified sense of identity and embodiment within the virtual environment.

2.2.2 Game Identification

When individuals anchor their identity definition to a specific game entity, they may develop one of three types of game identification: technical, brand-based, and social-oriented.

Technical game identification is grounded in information technology identity theory (Carter et al., 2020) and refers to the extent to which users integrate a game into their self-concept, making it a meaningful part of their identity (Gong et al., 2020). This form of identification emphasizes the central role that a game, as a technological entity, plays in shaping the user's self-definition. Players exhibiting this type of identity often demonstrate a strong emotional connection, technological dependency, and perceived alignment with the game (Carter et al., 2020; Gong et al., 2020).

Brand-based game identification draws from brand identity theory (Tuškej et al., 2013)and is defined as a psychological connection in which users assign anthropomorphic characteristics to a game and integrate the game's brand as part of their own identity (Badrinarayanan et al., 2015). Different types of games—such as war strategy, fantasy adventure, fighting, or anime-inspired role-playing games — embody unique symbolic meanings and identity markers. These qualities allow users to define and express who they are through their affiliation with the game (Badrinarayanan et al., 2015).

Social-oriented game identification is rooted in social identity theory (Ashforth & Mael, 1989) and refers to the psychological sense of belonging or identification players feel toward the game as a whole (Wang, 2022; Wang et al., 2022). This form of identity reflects players' perceived connection to the game environment and their emotional attachment to it as a virtual social space. When social game identification occurs, the game

transcends its function as entertainment and becomes a medium for identity expression and social integration. It enables players to fulfill psychological needs related to inclusion or differentiation from other social groups (Wang et al., 2022).

2.2.3 Community Identification

Players often form formal and informal communities around specific games, with well-defined boundaries and shared characteristics such as common interests, values, and behavioral patterns(Shi et al., 2015). Formal communities are typically established by game developers or publishers, and are designed to enhance team collaboration and improve the overall gameplay experience through collective activities, cooperative missions, or the pursuit of shared goals—for example, teams and guilds organized within the game. In contrast, informal communities are more loosely structured and spontaneously formed by players, with the primary aim of maintaining social connections through shared gameplay. These communities include topic circles on social media platforms, private friend groups, and player forums in online spaces.

Game-based communities serve as a channel for self-definition (Badrinarayanan et al., 2015). When players perceive themselves as members of a specific game community and associate that membership with self-relevant characteristics, they develop what is known as community identification (Hsiao & Chiou, 2017; Van Looy et al., 2012). This sense of identity can generate psychological superiority based on group membership and strengthen interpersonal trust among community members. Community identification not only fosters tighter social bonds among players but also enhances the overall appeal of the game, thereby encouraging continued engagement (Kim et al., 2012). Gamer identification

As online games have become increasingly destigmatized and widely accepted as a legitimate form of entertainment, the social and cultural meaning of the term “gamer” has undergone significant (Stone, 2019). Drawing on social identity theory, this paper defines gamer identification as the extent to which individuals perceive themselves as belonging to the social category of gamers (De Grove et al., 2015; Kivijärvi & Katila, 2022).

It is important to distinguish between being labeled as a gamer and actively identifying as one (Yim et al., 2023). The former refers to an external categorization that passively groups all users of games under the label of “gamer” — such as industry-defined classifications like “hardcore gamers” — applying a static social label to individuals. In contrast, the latter emphasizes a reflexive and agentic process, in which individuals consciously construct and express their self-concept as being a gamer (Shaw, 2012).

Gamer identification is often built upon specific behavioral characteristics, such as playing particular genres of games, spending more time gaming, engaging in gaming more frequently, owning specialized gaming equipment, or exhibiting higher levels of gaming skill (De Grove et al., 2015). For instance, players may present themselves as professional gamers by sharing in-game discoveries, walkthroughs, custom gameplay experiences, or showcasing their gaming setups on forums, social media, or video platforms. Through these expressions, they actively differentiate themselves from non-gamers and affirm their alignment with the social identity of being a gamer.

3. IDENTIFICATION MECHANISMS

3.1 Identification Mechanisms at the Individual Level

3.1.1 Mechanisms of Avatar Identification

Avatar identification is formed through two core psychological processes: cognitive processing and experiential immersion. In the cognitive process, individuals consciously interpret the information carried by their avatars and compare these attributes with their own self-concept, resulting in identity alignment. This mechanism relies on two key conditions: 1) Avatar–self discrepancy: When an avatar shares high similarity with a player in terms of appearance, personality, or values, similarity identification is likely to occur. Alternatively, when the avatar represents the player’s ideal self, wishful identification is more likely to form (Van Looy et al., 2012); 2) Perceived identity relevance: When individuals attach high importance to the avatar in defining their self-concept and perceive strong value homophily between the avatar and themselves, this cognitive emphasis strengthens avatar identification (Downs et al., 2019; Li et al., 2013).

In the experiential process, identification emerges less from conscious comparison and more from subtle, immersive interaction with the avatar. This process unfolds emotionally and involves three conditions:1) Emotional fusion: Perspective-taking is a key prerequisite. When players resonate emotionally with their avatars, they form a monadic relationship — experiencing in-game events and emotions (e.g., excitement, tension, fear) as if they were happening to themselves(Li et al., 2013; Van Looy et al., 2012); 2) Embodied presence: When players are deeply immersed in the game world through their avatars, they temporarily lose awareness of their real-world selves and environments. The player's will and body become psychologically embedded in the avatar, resulting in a strong sense of embodied presence (Van Looy et al., 2012); 3) Positive attitudes toward the avatar: Favorable evaluations of the avatar are essential for identity formation (Li et al., 2013). These attitudes may result from deliberate cognitive processing or may emerge unconsciously through repeated avatar use.

3.1.2 Mechanisms of Brand-Based Game Identification

Brand-based game identification refers to the psychological attachment and identity alignment that players develop through sustained interaction with a particular game brand. Its formation involves five logically progressive stages: 1) Perception of symbolic systems: Players interpret the game's design style, narrative content, and gameplay as manifestations of symbolic systems and cultural values — such as heroism, sci-fi aesthetics, adventurous spirit, exploration, or teamwork(Badrinarayanan et al., 2015); 2) Anthropomorphization of the game: Players form emotional connections with the game, attributing human-like characteristics to it and treating it as a meaningful "other" that can be emotionally engaged with and relied upon. At this stage, the game begins to transcend entertainment and assume deeper psychological significance (Fournier, 1998); 3)Search for identity congruence: Players compare the symbolic attributes of the game with their own identity needs to find points of resonance(Tuškej et al., 2013). For example, achievement-oriented players may identify more with competitive games, while creative players may gravitate toward sandbox-style games. 4) Internalization of symbolic meaning: Players internalize the game's symbolic and cultural meanings into their self-concept, transitioning from external perception to internal identification (Elliott & Wattanasuwan, 1998). This process transforms the game into a medium through which personal traits and values are communicated; 5) Identity confirmation and reinforcement: Through continuous engagement and game selection, the game becomes an essential component of personal identity expression. Participation in brand communities and the purchase of merchandise further strengthen brand-based identity (Ghodeswar, 2008).

3.2 Identification Mechanism at the Material Level

In online gaming, material-level identity is primarily reflected in technical game identification, which is shaped by three key mechanisms: technological embeddedness, technical self-efficacy, and actualized rewards (Carter & Grover, 2015). Technological embeddedness refers to the amount of time and effort a user has invested in using a particular technology. Frequent use and deep engagement allow the technology to become integrated into the user's self-concept, reinforcing their connection to it (Gong et al., 2020). Technical self-efficacy refers to an individual's confidence in their ability to overcome difficulties and successfully operate the game system. High self-efficacy leads to a greater sense of control and incorporation of the technology into one's self-concept, ultimately enhancing self-esteem (Gong et al., 2020). Actualized rewards are the emotional or functional benefits received through game use, such as enjoyment and a sense of achievement. These positive experiences further embed the game into the user's identity (Gong et al., 2020).

3.3 Identification Mechanisms at the Group Level

At the group level, identity in online gaming is manifested in community identification, social game identification, and gamer identification. While these identities differ in scope and level of abstraction, they share common mechanisms rooted in social identity theory. According to this theory, social identity is defined as the part of an individual's self-concept derived from perceived membership in a social group, along with the emotional and evaluative significance attached to that membership (Tajfel, 1978).

Social identity forms through the interaction of three components: cognitive awareness, evaluative judgment, and emotional attachment (Ellemers et

al., 1999). The cognitive component involves recognizing oneself as a member of a social group. The evaluative component relates to positive or negative values associated with that group membership. The emotional component refers to affective bonds with the group(Ellemers et al., 1999; Tajfel, 1978).

Accordingly, three key mechanisms contribute to the development of group-based identity in games: 1) Social categorization: Individuals segment the social environment based on predefined identity standards, forming distinctions between in-groups and out-groups. They categorize themselves into specific groups and differentiate in-group members from outsiders (Ashforth & Mael, 1989; Turner et al., 1987). For example, social game identification relies on usage of a specific game; community identification depends on membership or adherence to norms; gamer identification is based on players' self-definition as gamers. 2) Social comparison: After categorization, individuals evaluate their in-group against out-groups to generate group-based self-esteem and validate their identity(Turner, 1975). For instance, individuals with strong social game identification may derive pride and satisfaction from being part of a specific game user group, especially when contrasted with non-users. 3) Affective commitment: Following group validation, individuals shift their focus inward, aligning with group norms and behavioral patterns. This emotional investment stabilizes the identification process (Ellemers et al., 1999). For example, players who actively participate in community events or adhere to group norms reinforce their community identity and form lasting emotional ties to the group.

4. CONCLUSION

This study develops a multi-layered framework of identity in online games, encompassing individual, material, and group-level dimensions. It identifies four primary identity types—avatar, game (technical, brand-based, and social), community, and gamer—and examines the distinct psychological mechanisms through which each is formed. The paper contributes to game studies by refining the hierarchical structure of in-game identity and offering a cohesive theoretical model. It also highlights the multidimensional and coexisting nature of gaming identities, providing a foundation for future empirical research on how these identities shape player behavior and experience.

While this study offers a foundational framework for understanding identity in online games, several avenues remain for future research. First, the interaction between identity levels—such as how avatar or brand-based identification influences community identity—warrants deeper exploration. Second, the study does not address contextual factors (e.g., game genre, player motivation) that affect identity salience and behavioral outcomes. Third, as gaming technologies evolve, new forms of identity may emerge, particularly in VR or decentralized communities, suggesting the need to refine the framework over time. Lastly, future work should include qualitative and empirical research, especially using localized data, to validate and expand upon the proposed mechanisms.

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