



AI Virtual Influencers, Parasocial Relationships, and Trust in Social Media Communication: A Conceptual Framework

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ABSTRACT

Artificial intelligence has contributed to the rapid development of virtual influencers, digitally constructed personas that appear on social media platforms and communicate with audiences through images, captions, videos, comments, and brand collaborations. Unlike traditional social media influencers, AI virtual influencers do not have biological bodies, personal histories, or everyday experiences in the human sense. Nevertheless, they can attract followers, endorse products, participate in cultural conversations, and stimulate emotional attachment. This conceptual article examines how AI virtual influencers reshape social media communication by challenging established assumptions about authenticity, credibility, parasocial relationships, and trust. Drawing on human-machine communication, influencer marketing, parasocial interaction theory, and algorithmic visibility, the article proposes a three-dimensional framework for understanding AI virtual influencer communication: synthetic authenticity, parasocial attachment, and platform-mediated trust. Synthetic authenticity refers to the managed construction of perceived realness around nonhuman digital personas. Parasocial attachment refers to followers' one-sided emotional connection with virtual influencers. Platform-mediated trust refers to the ways social media visibility, influencer credibility, disclosure, and brand association shape audience evaluations. The article argues that AI virtual influencers should not be treated only as marketing tools, but as emerging communicative actors that reveal broader tensions in AI-mediated society. The article concludes by proposing future research directions related to disclosure, emotional labor, audience vulnerability, ethical branding, and the boundary between human and machine communication.

1. Introduction

Social media influencers have become important actors in contemporary communication, advertising, and consumer culture. They shape audience attention, promote lifestyles, recommend products, and build communities through repeated interaction with followers. Unlike traditional celebrities, influencers often construct influence through perceived accessibility, similarity,

expertise, and authenticity in platform-based environments (Casaló et al., 2020; Schouten et al., 2020).

The emergence of AI virtual influencers complicates this communication model. Virtual influencers are digitally created personas that may look, speak, and behave like human influencers, but their identities are designed, managed, and updated by human teams, brands, or AI-supported systems. They can post on Instagram, TikTok, YouTube, and other platforms, collaborate with companies, respond to followers, and participate in public conversations without being human persons in the traditional sense (Moustakas et al., 2020; Guzman & Lewis, 2020).

This development raises important questions for communication and society. If followers form emotional attachments to a virtual influencer, what kind of relationship is being created? If a nonhuman persona endorses a product, how should credibility and responsibility be understood? If audiences perceive a virtual influencer as authentic, what does authenticity mean in AI-mediated communication? These questions are central because social media influence depends heavily on trust, perceived authenticity, and parasocial connection (Lou & Yuan, 2019; Sokolova & Kefi, 2020).

This article develops a conceptual framework for understanding AI virtual influencers in social media communication. It argues that AI virtual influencers should not be understood merely as fictional characters or advertising devices. Instead, they should be examined as hybrid communicative actors that combine human design, machine-assisted production, brand strategy, and audience interpretation (Hancock et al., 2020; Guzman & Lewis, 2020).

The article proposes three key dimensions for analysis: synthetic authenticity, parasocial attachment, and platform-mediated trust. These dimensions help explain how virtual influencers become meaningful to audiences despite their artificial status, how followers may develop emotional connections with them, and how trust is negotiated in AI-mediated platform environments (Horton & Wohl, 1956; Audrezet et al., 2020).

2. Literature Review

Social Media Influencers and Digital Credibility

Social media influencers are commonly understood as individuals who develop influence through online visibility, content production, audience relationships, and perceived expertise. Their persuasive power often depends on credibility, attractiveness, similarity, and the perceived value of their content (Lou & Yuan, 2019; Schouten et al., 2020).

Lou and Yuan (2019) found that influencer credibility and message value affect consumer trust in branded content. Their work is important because it shows that influencer communication is not persuasive simply because it is promotional. Rather, persuasion depends on whether audiences perceive the influencer and the message as credible, useful, and trustworthy (Lou & Yuan, 2019).

Schouten et al. (2020) compared celebrity and influencer endorsements and found that influencers may be effective because audiences identify with them and perceive them as more similar and trustworthy than traditional celebrities. This suggests that influencer communication relies strongly on relational perception rather than only fame or visibility (Schouten et al., 2020).

For AI virtual influencers, these findings create a theoretical challenge. If similarity, trustworthiness, and identification are important to influencer effectiveness, then researchers must ask how a nonhuman influencer can produce these perceptions. The answer may lie not in actual human experience but in the communicative performance of identity, lifestyle, and interaction (Moustakas et al., 2020; Guzman & Lewis, 2020).

Authenticity in Influencer Communication

Authenticity is a central value in influencer culture. Audiences often expect influencers to appear genuine, personally invested, and emotionally consistent. However, influencer authenticity is not simply a natural quality. It is actively managed through content style, self-presentation, disclosure, brand fit, and audience interaction (Audrezet et al., 2020; De Veirman et al., 2017).

Audrezet et al. (2020) argue that influencers must manage authenticity when brand partnerships threaten their perceived independence. Their study identifies passionate authenticity and transparent authenticity as strategies through which influencers can maintain credibility while engaging in commercial communication. This insight is especially relevant to virtual influencers because their entire identity is constructed and managed (Audrezet et al., 2020).

De Veirman et al. (2017) show that follower number and product divergence can affect attitudes toward influencers and their endorsements. This suggests that perceived influence is shaped not only by content but also by platform metrics and audience cues. Virtual influencers may benefit from these same platform signals, even though their popularity may be strategically manufactured (De Veirman et al., 2017).

Virtual influencers therefore reveal a paradox of authenticity. They are artificial by design, yet they may still be perceived as authentic if their identity, values, aesthetics, and brand relationships appear coherent and transparent. In this context, authenticity becomes less about biological realness and more about communicative consistency and audience recognition (Audrezet et al., 2020; Moustakas et al., 2020).

Parasocial Interaction and Emotional Attachment

Parasocial interaction theory provides a useful foundation for understanding audience relationships with virtual influencers. Horton and Wohl (1956) introduced parasocial interaction to describe the illusion of face-to-face relationship between audiences and media personalities. Although originally developed in relation to television, the concept remains highly relevant to social media because followers may feel emotionally close to influencers despite limited reciprocal interaction (Horton & Wohl, 1956; Sokolova & Kefi, 2020).

Sokolova and Kefi (2020) found that credibility and parasocial interaction influence purchase intentions in the context of Instagram and YouTube influencers. Their study suggests that followers' emotional and relational connection with influencers can shape consumer behavior. This is important for virtual influencers because even artificial personas may stimulate feelings of familiarity, attachment, and trust (Sokolova & Kefi, 2020).

Parasocial relationships with virtual influencers may differ from those with human influencers because virtual influencers are openly or partially artificial. Followers may know that the persona

is not human but still engage with it emotionally. This resembles broader findings in human–computer interaction, where people often respond socially to computers and digital agents even when they know they are interacting with machines (Nass & Moon, 2000).

AI virtual influencers therefore challenge a simple distinction between real and fake relationships. The relationship may be one-sided and artificial, but the follower’s emotional response can still be meaningful. Communication research should therefore examine not only whether virtual influencers are “real,” but how audiences interpret and experience them as social presences (Horton & Wohl, 1956; Nass & Moon, 2000).

Human–Machine Communication

Human–machine communication provides another important perspective. Guzman and Lewis (2020) argue that artificial intelligence challenges traditional communication theory because machines can increasingly participate in communicative processes. AI systems may act as assistants, sources, social actors, or communicative partners, depending on how they are designed and perceived (Guzman & Lewis, 2020).

Hancock et al. (2020) define AI-mediated communication as communication in which an intelligent agent modifies, augments, or generates messages on behalf of a communicator. Virtual influencers can be understood through this lens because their content often reflects human planning, algorithmic assistance, platform optimization, and audience feedback. Their communication is therefore neither purely human nor purely machine-generated (Hancock et al., 2020).

This hybridity complicates responsibility. If a virtual influencer promotes a product, expresses a political view, or gives lifestyle advice, responsibility may belong to designers, brand managers, platform operators, or agencies rather than to the persona itself. Communication research must therefore examine how agency and accountability are distributed in virtual influencer communication (Guzman & Lewis, 2020; Hancock et al., 2020).

3. A Conceptual Framework

This article proposes a three-dimensional framework for analyzing AI virtual influencers in social media communication: synthetic authenticity, parasocial attachment, and platform-mediated trust. These dimensions are interconnected because virtual influencer communication depends on the construction of identity, the formation of audience relationships, and the management of credibility in platform environments (Audrezet et al., 2020; Lou & Yuan, 2019).

Synthetic Authenticity

Synthetic authenticity refers to the construction of perceived realness around an artificial persona. In the case of virtual influencers, authenticity does not come from lived human experience. Instead, it is produced through narrative coherence, visual consistency, interaction style, brand alignment, and disclosure practices (Audrezet et al., 2020; Moustakas et al., 2020).

A virtual influencer may appear authentic when its posts, values, appearance, and partnerships seem consistent over time. For example, if a virtual influencer repeatedly communicates around fashion, sustainability, or youth culture, audiences may begin to treat the persona as having a stable identity.

This identity is artificial, but it can still become communicatively meaningful (Moustakas et al., 2020; Guzman & Lewis, 2020).

Synthetic authenticity also depends on transparency. Because virtual influencers are constructed, hidden artificiality may damage trust if audiences feel deceived. However, open artificiality does not necessarily prevent engagement. Some followers may accept or even enjoy virtual influencers precisely because they represent a creative blend of fiction, technology, and social media culture (Audrezet et al., 2020; Nass & Moon, 2000).

This means that authenticity in AI-mediated communication should not be reduced to whether a communicator is human. Instead, researchers should examine how authenticity is performed, interpreted, and negotiated. In virtual influencer communication, authenticity becomes a relational judgment made by audiences within platform contexts (Lou & Yuan, 2019; Audrezet et al., 2020).

Parasocial Attachment

Parasocial attachment refers to the emotional connection followers may develop toward virtual influencers. Although virtual influencers cannot reciprocate in a human sense, they can still produce the appearance of interaction through replies, comments, live content, storytelling, and personalized communication (Horton & Wohl, 1956; Sokolova & Kefi, 2020).

This attachment may be strengthened by repeated exposure. Followers who regularly see a virtual influencer's posts may develop familiarity with its visual identity, voice, lifestyle, and values. Over time, the virtual influencer may become part of the follower's everyday media environment, similar to how traditional media personalities generate parasocial bonds (Horton & Wohl, 1956; Sokolova & Kefi, 2020).

AI and platform analytics may intensify parasocial attachment by making communication appear more responsive. For example, virtual influencers can be designed to reply in a consistent tone, respond to audience trends, and adapt content based on engagement data. This creates an impression of responsiveness, even when the relationship remains asymmetrical and managed (Hancock et al., 2020; Guzman & Lewis, 2020).

However, parasocial attachment to virtual influencers raises ethical concerns. Followers may emotionally invest in personas that are strategically designed for engagement and commercial persuasion. Young audiences or emotionally vulnerable users may be especially affected by the blurred boundary between companionship, entertainment, and advertising (Sokolova & Kefi, 2020; Lou & Yuan, 2019).

Platform-Mediated Trust

Platform-mediated trust refers to the ways trust in virtual influencers is shaped by social media systems, visibility metrics, endorsement practices, and audience interaction. In platform environments, credibility is often influenced by follower counts, likes, comments, verification symbols, recommendation algorithms, and brand collaborations (De Veirman et al., 2017; Bucher, 2012).

Bucher (2012) argues that platform visibility is connected to algorithmic power. This is important because virtual influencers become influential not only through content but also through platform circulation. Algorithms may amplify their posts, metrics may signal popularity, and engagement patterns may create the impression of social legitimacy (Bucher, 2012; De Veirman et al., 2017).

Trust in virtual influencers also depends on endorsement transparency. When virtual influencers promote products, audiences need to understand whether the content is advertising, who controls the persona, and whether AI or automated systems are involved. Without clear disclosure, virtual influencer communication may produce deception or confusion (Lou & Yuan, 2019; Hancock et al., 2020).

Platform-mediated trust is therefore not located only in the virtual influencer. It is distributed across the persona, the brand, the platform, and the audience community. A virtual influencer may appear trustworthy because of polished design, consistent storytelling, visible engagement, or association with reputable brands. Communication research must examine how these trust signals interact (Schouten et al., 2020; Lou & Yuan, 2019).

4. Discussion

Rethinking Authenticity in AI-Mediated Society

AI virtual influencers show that authenticity in digital communication is increasingly performative and relational. Traditional authenticity often assumes a connection between communication and lived human experience. Virtual influencers disrupt this assumption because their identities are produced through design, scripting, platform analytics, and audience interpretation (Audrezet et al., 2020; Moustakas et al., 2020).

This does not mean authenticity disappears. Rather, authenticity becomes reorganized. A virtual influencer may be considered authentic if it is transparent about being virtual, consistent in its identity, and coherent in its brand relationships. In this sense, authenticity is not simply the opposite of artificiality; it is a communicative effect produced through stable and recognizable performance (Audrezet et al., 2020; Guzman & Lewis, 2020).

For communication scholars, this requires moving beyond the question of whether virtual influencers are real or fake. A more useful question is how audiences evaluate realness, sincerity, and trust when communicators are partly or fully artificial. This question connects virtual influencer studies with broader debates in human-machine communication and AI-mediated communication (Guzman & Lewis, 2020; Hancock et al., 2020).

Commercial Persuasion and Audience Vulnerability

AI virtual influencers are especially important in advertising and brand communication. Like human influencers, they can promote products through lifestyle narratives and parasocial appeal. However, unlike human influencers, they can be fully controlled, endlessly modified, and protected from many forms of human unpredictability. This makes them attractive to brands but also ethically complex (Moustakas et al., 2020; Lou & Yuan, 2019).

Influencer marketing research shows that credibility, similarity, identification, and parasocial interaction can influence consumer attitudes and purchase intentions. When these mechanisms are transferred to virtual influencers, audiences may be persuaded by personas that are deliberately engineered for emotional attachment and commercial effectiveness (Schouten et al., 2020; Sokolova & Kefi, 2020).

This raises questions about audience vulnerability. If followers know that a virtual influencer is artificial, persuasion may be interpreted as entertainment. However, if the artificial nature, sponsorship, or brand control is unclear, audiences may misread promotional communication as personal expression. This problem is especially significant for younger users who may have limited advertising literacy (Lou & Yuan, 2019; De Veirman et al., 2017).

Therefore, virtual influencer communication requires stronger ethical attention to disclosure and transparency. Audiences should be able to identify whether a persona is virtual, who controls it, and when content is sponsored. Without such clarity, virtual influencer marketing may blur the distinction between storytelling, companionship, and advertising (Hancock et al., 2020; Audrezet et al., 2020).

Agency and Responsibility

AI virtual influencers raise difficult questions about agency. A human influencer can be held responsible for their speech, endorsements, and behavior. A virtual influencer, however, is not a moral subject in the same way. Responsibility must therefore be assigned to the individuals, agencies, brands, and platforms that design, manage, and distribute the persona (Guzman & Lewis, 2020; Hancock et al., 2020).

This distributed responsibility matters because virtual influencers can participate in public communication. They may comment on social issues, promote lifestyles, normalize beauty standards, or shape consumer behavior. Even when they appear playful or fictional, their communication may have real social consequences (Moustakas et al., 2020; Bucher, 2012).

Communication research should therefore examine the governance of virtual influencer identities. Who approves their messages? How are errors corrected? How are sponsored posts disclosed? How are audience interactions moderated? These questions are necessary because virtual influencer communication is produced by systems of human and technological coordination rather than by a single individual (Hancock et al., 2020; Guzman & Lewis, 2020).

5. Future Research Directions

Future research should examine how audiences perceive AI virtual influencers compared with human influencers. Experimental studies could test whether disclosure of artificial identity affects perceived authenticity, credibility, parasocial attachment, and purchase intention. Such studies could build on existing influencer marketing research while adapting it to AI-mediated personas (Schouten et al., 2020; Sokolova & Kefi, 2020).

Survey research could investigate audience attitudes toward virtual influencers across demographic groups. Relevant variables may include AI literacy, advertising literacy, perceived realism, trust, platform use, parasocial attachment, and skepticism toward sponsored content. These studies would

help explain why some users accept virtual influencers while others reject them (Lou & Yuan, 2019; De Veirman et al., 2017).

Qualitative research could explore how followers describe their relationships with virtual influencers. Interviews and focus groups could reveal whether audiences treat virtual influencers as fictional characters, brand mascots, social actors, entertainment figures, or quasi-influencers. This would help clarify how parasocial attachment functions when the persona is known to be artificial (Horton & Wohl, 1956; Nass & Moon, 2000).

Content analysis could examine how virtual influencers construct authenticity through captions, images, hashtags, brand partnerships, and interaction patterns. Researchers could compare virtual and human influencers in terms of emotional expression, self-disclosure, visual style, sponsorship disclosure, and audience engagement (Audrezet et al., 2020; Casaló et al., 2020).

Finally, platform studies could examine how algorithms contribute to the visibility and normalization of virtual influencers. Because influencer success depends partly on recommendation systems and engagement metrics, researchers should investigate how platform infrastructures shape public exposure to artificial personas (Bucher, 2012; De Veirman et al., 2017).

6. Conclusion

AI virtual influencers represent an important development in social media communication. They challenge traditional assumptions about authenticity, credibility, parasocial relationships, and communicative agency. Although they are artificial, they can still attract followers, generate emotional attachment, influence consumer behavior, and participate in public culture (Moustakas et al., 2020; Sokolova & Kefi, 2020).

This article proposed a conceptual framework based on synthetic authenticity, parasocial attachment, and platform-mediated trust. These three dimensions show that virtual influencer communication should be understood as a hybrid form of AI-mediated communication shaped by design, branding, platform visibility, and audience interpretation (Guzman & Lewis, 2020; Hancock et al., 2020).

For communication scholarship, AI virtual influencers provide a valuable case for examining the changing boundaries between human and machine communication. They show that influence does not depend only on human identity but also on perceived authenticity, relational performance, and platform-mediated trust. As AI-generated personas become more common, future research must examine how they affect audiences, brands, platforms, and the ethical conditions of social media communication (Audrezet et al., 2020; Lou & Yuan, 2019).

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