

THE CONSTRUCTION OF IDENTITY AND NARRATIVE OF VIRTUAL INFLUENCERS: THE ROLE OF ARTIFICIAL INTELLIGENCE AND IMPLICATIONS FOR AUTHENTICITY AND ENGAGEMENT

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ABSTRACT

This article investigates the construction and maintenance of the identity and narrative of virtual influencers, exploring the implications of artificial intelligence (AI) in creating convincing and authentic virtual personalities. As virtual influencers gain popularity, understanding the mechanisms behind their identity and narrative becomes essential to assess their impact on audience engagement and brand loyalty. This study examines how AI is used to develop personal characteristics, behaviors, and interactions that appear genuine and analyzes the public's perceptions of authenticity regarding these digital entities. The article discusses the importance of a consistent and coherent narrative to maintain audience engagement, proposing a theoretical framework that integrates concepts from consumer psychology and digital communication. Based on a comprehensive review of existing literature and new theoretical insights, this article aims to fill critical knowledge gaps about the effectiveness of virtual influencers, offering guidelines for future research and practices in the field of influencer marketing.

Keywords: Virtual Influencers; Artificial Intelligence; Authenticity; Audience Engagement; Influencer Marketing.

1 INTRODUCTION

The phenomenon of virtual influencers has emerged as a disruptive force in the field of digital marketing, changing the way brands interact with consumers and shaping new dynamics of influence. While human influencers have been widely studied, the rise of virtual influencers brings up new questions about authenticity, engagement and identity building. Virtual influencers, such as Lil Miquela and Hatsune Miku, are digital creations who amass millions of followers on social networks, promoting products and creating cultural trends. However, little is known about how these virtual entities construct and maintain their identities and narratives over time and how artificial intelligence (AI) contributes to the authenticity perceived by the public.

Identity and narrative are essential components for the success of any influencer, human or virtual. They determine how the audience connects and interacts with the influencer, directly influencing engagement and brand loyalty (Kapitan & Silvera, 2016). For virtual influencers, the construction of these identities is even more complex, involving sophisticated algorithms and AI techniques to create characters that seem genuine and relatable (Belk, 2013). The central question guiding this study is: "How does AI contribute to the construction of virtual influencers' identities and narratives, and what are the implications of this construction for the perception of authenticity and audience engagement?"

The aims of this article are twofold. First, to investigate the processes and technologies underlying the creation of convincing virtual influencers. Second, to analyze the implications of these practices for perceived authenticity and audience engagement. This study aims to fill a significant gap in the influencer marketing literature by providing a theoretical framework that addresses the complexities of AI-mediated virtual identity construction.

Current literature on influencer marketing has focused predominantly on human influencers, leaving a theoretical gap in understanding virtual influencers (Freberg et al., 2011). Previous studies have highlighted the importance of perceived authenticity in influencer effectiveness, but little research has explored how this authenticity is

manufactured in virtual contexts (Audrezet, de Kerviler, & Moulard, 2018). In addition, the relationship between narrative consistency and audience engagement in virtual influencers remains underexplored. This article seeks to fill these gaps by offering insights into virtual identity construction practices and their implications for influencer marketing.

The structure of this theoretical article integrates concepts from consumer psychology, digital communication and influencer marketing to develop a comprehensive framework that explains how virtual influencers construct and maintain their identities and narratives. First, we discuss the theory of identity construction, adapting it to the digital context and exploring how AI plays a central role in this process. Next, we examine perceptions of authenticity and how they are shaped by the narrative and consistency of the virtual influencer. Finally, we propose a theoretical model that relates identity construction and narrative to audience engagement, highlighting the implications for brands and researchers.

2 LITERATURE REVIEW

2.1 Influence Marketing and Human Influencers

2.1.1 Evolution of influencer marketing

Influencer marketing has evolved significantly, becoming central to brands seeking to engage consumers in an authentic way. Originally based on celebrities, influencer marketing now includes ordinary individuals who have gained an online following, wielding influential power (Khamis, Ang, & Welling, 2017). This transition reflects a shift in the paradigms of trust and authenticity, with digital influencers being seen as more accessible and authentic (Abidin, 2015).

Marwick (2015) describes this phenomenon as "micro-celebrity", where perceived authenticity and emotional connection are essential for influencer marketing. Initially, influencers were chosen by popularity and number of followers, but recent research shows that audience engagement is a more accurate indicator of influence (De Veirman, Cauberghe, & Hudders, 2017). This highlights the importance of the quality

of engagement, leading brands to collaborate with micro- and nano-influencers, who have smaller but highly engaged and loyal audiences.

Authenticity is relevant in influencer marketing, essential for building trust between influencers and followers (Audrezet, de Kerviler, & Moulard, 2018). The perception of authenticity is shaped by factors such as transparency in business relationships and consistency of narrative (Evans, Phua, Lim, & Jun, 2017).

The evolution of influencer marketing has also been driven by data analysis technologies and recommendation algorithms, allowing for greater precision in the identification and segmentation of influencers (Brown & Fiorella, 2013). These technologies allow for more refined personalization of campaigns, increasing the effectiveness of advertising messages.

New digital platforms such as Instagram, YouTube and TikTok have become privileged spaces for influencers, offering tools for creating attractive and interactive content (Jin, Muqaddam, & Ryu, 2019). These platforms amplify the visibility of influencers and allow direct interaction with followers, intensifying the feeling of closeness and authenticity.

However, the increasing commercialization of influencer marketing raises questions about the sustainability of perceived authenticity. The frequency of sponsored posts can diminish followers' trust, leading to "influencer fatigue" (Boerman, Willemsen, & Van Der Aa, 2017). Regulation and transparency in the disclosure of business partnerships are areas that require ongoing attention to ensure ethical practices (Evans, Phua, Lim, & Jun, 2017).

The evolution of influencer marketing, marked by the transition from opinion leaders to virtual influencers, is driven by a growing search for authenticity and genuine engagement. Technological advances and new platforms have allowed for more effective personalization of campaigns, although challenges such as maintaining authenticity and commercial transparency remain. As can be seen in the Table 1, this evolving context sets the stage for the emergence of virtual influencers, who promise to redefine the dynamics of influence in digital marketing once again.

Table 1 - Evolution of Influence Entities

Decade	Type of Influencer	Definition	Main Characteristics	Trends
1940s-1950s	Opinion Leaders	Individuals who influence others within their social circles.	Respected, knowledgeable, trusted within their communities.	Initial stages of mass communication studies.
1960s-1970s	Celebrity Endorsers	Famous personalities promoting products.	High visibility, wide reach, trusted based on fame.	Television and radio endorsements, limited interaction with the audience.
1980s-1990s	Peer Influencers	Ordinary individuals influencing peers through word-of-mouth.	Relatable, trusted due to personal connections.	Early stages of grassroots marketing.
2000s	Digital Influencers	Individuals who gained online following and influence.	Accessible, authentic, engage directly with audiences on digital platforms.	Rise of blogs, forums, and early social media platforms (MySpace, early YouTube).
2010s	Micro- and Nano-Influencers	Influencers with smaller but highly engaged audiences.	High engagement, niche markets, perceived as highly authentic.	Growth of Instagram, YouTube, and TikTok, data-driven identification and segmentation.
2010s	Virtual Influencers	AI-generated digital personas with online influence.	Consistent narrative, highly customizable, controlled image.	Emergence of characters like Lil Miquela, increased use of AI and machine learning in marketing.
2020s	Metahumans	Highly advanced AI-generated influencers, often indistinguishable from humans.	Hyper-realistic, emotionally engaging, capable of real-time interaction.	Integration with AR/VR technologies, potential for deep personalization and immersive experiences.

Source: Own Authorship (2024)

2.1.2 The importance of authenticity and engagement

Authenticity and engagement are fundamental pillars in influencer marketing, essential for the effectiveness and credibility of campaigns. Authenticity directly influences the trust and emotional connection between influencers and their audiences, and is valued by consumers who prefer figures perceived as genuine and trustworthy (Audrezet, de Kerviler, & Moulard, 2018; Hughes, Swaminathan, & Brooks, 2019).

Factors such as transparency in business partnerships and narrative consistency are critical to the perception of authenticity. Influencers who align their promotions with their beliefs and lifestyle are seen as more authentic, while maintaining a coherent narrative reinforces trust (Evans, Phua, Lim, & Jun, 2017; Gannon & Prothero, 2018).

Engagement, defined by the level of interaction such as likes and comments, is a robust indicator of effective influence, surpassing the simple number of followers (De Veirman, Cauberghe, & Hudders, 2017). Authentic influencers tend to generate

greater engagement, creating a virtuous cycle where authenticity and engagement reinforce each other.

In addition, the congruence between the influencer's values and the promoted brands increases the perceived authenticity and effectiveness of the campaigns. Consumers are more trusting of recommendations that seem genuine (Schouten, Janssen, & Verspaget, 2019).

Strategies to boost engagement include creating interactive content and personal responses to interactions, strengthening the sense of community and direct connection with followers (Jin, Muqaddam, & Ryu, 2019; Evans, Phua, Lim, & Jun, 2017). However, excessive commercialization can compromise perceived authenticity, decreasing engagement and trust from followers (Boerman, Willemsen, & Van Der Aa, 2017). Maintaining a balance between commercial partnerships and genuine content is essential to preserving the influencer's identity and values.

Authenticity and engagement are interdependent and vital for success in influencer marketing. The perception of authenticity and the ability to generate engagement determine the effectiveness of campaigns. These elements are fundamental in the digital age, where transparency and direct interaction are highly valued, helping brands and influencers to build lasting and authentic relationships with their audiences.

2.2 Emergence and Growth of Virtual Influencers: Popular virtual influencers and their cultural and commercial impact

The emergence of virtual influencers marks a new era in digital marketing, combining advanced technology and creativity. Developed using AI algorithms and computer graphics, these digital influencers reflect technological evolution and changing consumer expectations for innovative content.

Gaining notoriety in the late 2010s, influencers such as Lil Miquela from the startup Brud, illustrate how these figures can capture the public's attention, participating in campaigns for renowned brands such as Calvin Klein and Prada (Mediakix, 2018). They offer brands unprecedented control over the influencer's image and behavior,

reducing risks and improving the efficiency of campaigns due to their programming to maintain a consistent narrative (Robinson, 2020).

Virtual influencers are not subject to human physical limitations, allowing them to be present at multiple events simultaneously and to personalize for different global audiences (Jin, 2020). AI plays a central role in adapting content to maximize engagement, using techniques such as natural language processing for more human interactions (Lee, 2019; Tussyadiah, 2020).

In addition, perceived authenticity is essential, built through compelling narratives that reflect human experiences, establishing deep emotional connections with audiences (Belk, 2013). Despite its digital nature, narrative consistency can engage followers in a similar way to human influencers (Jin, 2020).

The use of virtual influencers expands the creative possibilities for brands and raises ethical questions about the influence and manipulation of public perception, highlighting the need for more research into its implications (Wiedmann & von Mettenheim, 2020).

Virtual influencers represent an innovative development in digital marketing, redefining the dynamics of influence and requiring a constant reassessment of ethical practices. Studying this phenomenon is basic to understanding the opportunities and challenges it presents, making a significant contribution to the influencer marketing literature.

2.3 Perceived Authenticity and Engagement

Perceived authenticity is essential in influencer marketing, especially for virtual influencers who, as digital creations, face unique challenges to build trust and credibility (Audrezet, de Kerviler, & Moulard, 2018). Consumers value authenticity, associating it with transparency, consistency and sincerity, which are essential for the acceptance of influencers (Beverland, 2006).

For virtual influencers, transparency about their digital nature and consistency in storytelling are vital. Techniques such as the use of AI algorithms help to maintain a cohesive personality and story, adjusting interactions to align with the influencer's

image, as exemplified by Lil Miquela, who sustains a continuous narrative to solidify her identity (Robinson, 2020; Tussyadiah, 2020).

Authenticity also directly influences audience engagement. Influencers perceived as authentic foster greater interaction, including likes, comments and purchases, establishing an emotional bond that promotes lasting engagement (Hughes, Swaminathan, & Brooks, 2019).

Challenges include balancing inherent artificiality with convincing presentations of authenticity. Natural language processing tools enable interactions that appear genuine and spontaneous, reinforcing perceived authenticity (Lee, 2019). In addition, congruence between the influencer's image and the brands promoted reinforces the effectiveness of the influence, as followers believe in the synchronicity between the influencer and their endorsed products (Schouten, Janssen, & Verspaget, 2019).

Perceived authenticity is fundamental to the success of virtual influencers, directly influencing audience engagement and the effectiveness of campaigns. As virtual influencers continue to evolve, understanding and applying authenticity principles is essential to maximizing their impact in digital marketing. The complex relationship between authenticity and engagement in the context of virtual influencers challenges traditional notions of marketing, promoting a re-evaluation of the strategies used and the ethical practices involved.

3 IDENTITY CONSTRUCTION AND THE NARRATIVE OF VIRTUAL INFLUENCERS

3.1 Identity Construction Theory: Key elements of virtual identity and adapting the theory to the digital context

Identity construction is central to social psychology and communication, defined as the process by which individuals and entities construct a perception of themselves that is communicated and validated by the public (Goffman, 1959). In virtual influencers, this theory is adapted to digital particularities. Virtual influencers, creations of AI and

digital technology, require a methodological approach that considers both technical and human aspects in the construction of identity.

Goffman (1959) suggests that identity is a continuous performance, where symbols, language and behavior project a specific image to the public. This applies to virtual influencers, who, although artificial, need to project a coherent and attractive identity in order to engage their audience. Adapting this theory to the virtual context considers how technology and programming replace human aspects of performance.

The identity construction of virtual influencers begins with the definition of essential characteristics, such as age, gender, interests, values and communication style, programmed with AI algorithms that simulate human behavior (Tussyadiah, 2020). Lil Miquela, for example, has interests in fashion, music and social causes, establishing an authentic connection with her audience (Robinson, 2020).

Narrative is relevant in building the identity of virtual influencers. It refers to the ongoing story that an influencer tells about themselves, including experiences and thoughts. For virtual influencers, storytelling must be planned and executed to maintain consistency and credibility. Teams of scriptwriters and marketing experts develop these narratives, using engagement data to adjust them as necessary (Gannon & Prothero, 2018). Consistency in storytelling is key to maintaining perceived authenticity, which is essential for audience engagement.

Adapting identity construction theory to the virtual context involves advanced technologies such as machine learning and natural language processing, enabling personalized and realistic interactions. These technologies allow virtual influencers to adjust responses and behaviors based on interactions with followers, creating an illusion of spontaneity and authenticity (Lee, 2019). The ability to learn and adapt in real time sets virtual influencers apart, allowing for a more dynamic and responsive identity construction.

Another important aspect is managing your digital presence, using various social media platforms to reach different audience segments. A coordinated presence on Instagram, YouTube and TikTok is essential for building a strong and recognizable

identity. Content strategies aligned with the influencer's personality and narrative ensure that the image projected is coherent and authentic (Jin, Muqaddam, & Ryu, 2019).

The theory of identity construction in the virtual context also considers ethical implications and transparency. Virtual influencers face scrutiny over the honesty of their digital nature. Transparency about their creation and management can reinforce perceived authenticity and strengthen audience trust, essential in an environment where authenticity is valued and any perception of deception can lead to a loss of trust and engagement (Beverland, 2006).

Adapting identity construction theory to virtual influencers integrates technical and human elements. The use of AI, the importance of consistent storytelling, digital presence management and ethical implications are all critical components of building an effective virtual identity. By adapting the classic principles of identity building to the digital environment, we develop virtual influencers who engage audiences in an authentic way, redefining the possibilities of influence in contemporary digital marketing. This approach provides a robust theoretical basis for future research and practice in the field of influencer marketing, contributing significantly to the existing literature.

Building effective virtual identities requires the clear definition of personal attributes, consistent storytelling, personalized interaction, digital presence management and consideration of ethical implications. Personalizing attributes is essential to creating an authentic connection with followers. Lil Miquela, for example, is programmed with interests that help establish an authentic connection with her audience (Robinson, 2020). Consistency in defining these attributes guarantees a coherent and relatable image.

Consistent storytelling is key to building a virtual identity. Narrative refers to the ongoing story that a virtual influencer tells about themselves, including experiences and thoughts. Consistency in storytelling maintains perceived authenticity and fosters sustained engagement. The narrative should reflect the influencer's personality and values, creating a rich and multidimensional image. Lil Miquela, for example, shares

stories about her adventures, friendships and opinions, humanizing the character and increasing her authenticity (Gannon & Prothero, 2018).

Personalized interaction is critical. Using natural language processing and machine learning technologies, virtual influencers can respond to comments and messages in a way that feels genuine, creating a sense of personal connection (Lee, 2019). The ability to interact in a personalized way is essential for building and maintaining audience loyalty. Data analysis tools allow for continuous adjustments, improving the user experience and increasing perceived authenticity.

Digital presence management is essential. Virtual influencers need to maintain a consistent and coordinated presence on various social media platforms in order to reach and engage different audiences. Digital presence must be managed to ensure that the image projected is coherent with the influencer's identity. This includes creating visual and narrative content in line with the influencer's personality and values. Effective digital presence management builds a strong and recognizable identity, engaging audiences in a meaningful way (Jin, Muqaddam, & Ryu, 2019).

Consideration of the ethical implications is important. Transparency about the influencer's digital nature maintains audience trust. Followers need to know that they are interacting with a virtual entity, avoiding any sense of deception. Transparency reinforces perceived authenticity and strengthens audience trust, especially where authenticity is valued (Beverland, 2006). Ethical management of user data and responsibility in interactions are important for fair and respectful practices.

The construction of virtual identities integrates key elements to create authentic and engaging virtual influencers. Clear definition of personal attributes, consistent storytelling, personalized interaction, management of digital presence and consideration of ethical implications are essential components for forming a robust virtual identity.

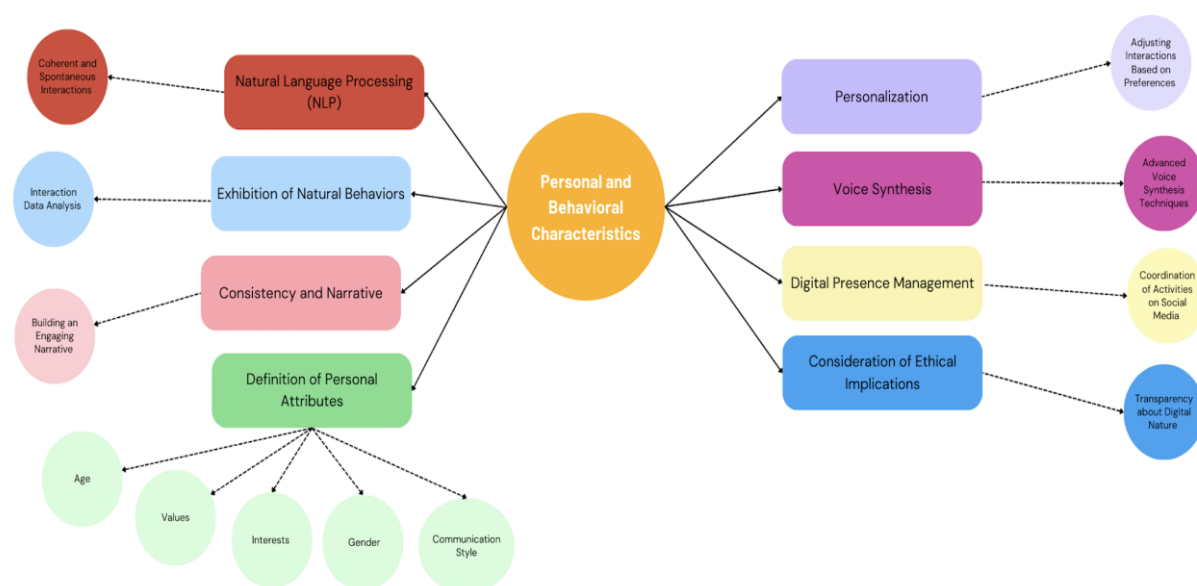
Role of Artificial Intelligence

3.2.1 Development of personal and behavioral characteristics

Developing the personal and behavioral characteristics of virtual influencers is a complex and sophisticated process that involves the use of various advanced

technologies. These characteristics are essential for building a convincing and authentic identity that resonates with audiences and promotes meaningful engagement. AI, machine learning and other emerging technologies play important roles in creating and maintaining these characteristics, allowing virtual influencers to develop personalities and behaviors that seem genuine and human as can be seen in the Figure 1.

Figure 1 - Process of Developing Personal and Behavioral Characteristics of Virtual Influencers



Source: Own Authorship (2024)

The creation of personal characteristics begins with the definition of fundamental attributes such as age, gender, interests, values and communication style. These attributes are programmed using AI algorithms that can simulate human behavior. For example, virtual influencers like Lil Miquela are designed with complex personalities that include interests in fashion, music and social issues, helping to establish an authentic connection with their followers (Robinson, 2020). Accuracy in defining these attributes is relevant, as it determines the basis on which the influencer's entire interaction and narrative will be built.

In addition to personal attributes, virtual influencers also need to exhibit behaviors that seem natural and consistent with their personalities. Machine learning

is used to analyze large volumes of interaction data, allowing influencers to adjust their behaviors based on audience responses. For example, deep learning techniques can be applied to improve the emotional response and empathy of virtual influencers, making their interactions more convincing and human (Tussyadiah, 2020). This ability to adapt is essential for maintaining perceived authenticity and ongoing audience engagement.

Natural language processing (NLP) is another critical technology in developing the behavioral characteristics of virtual influencers. NLP allows these characters to understand and respond to interactions in natural language, facilitating conversations that seem genuine and spontaneous. This is exemplified by influencers such as Lil Miquela, who uses NLP to interact with his followers on social media in a way that mimics human interaction (Lee, 2019). The ability to hold coherent and contextually appropriate conversations is vital to building a sense of connection and authenticity between the virtual influencer and their audience.

Narrative is equally important in developing personal and behavioral characteristics. A consistent and engaging narrative helps solidify the influencer's identity and build an emotional connection with the audience. Teams of screenwriters and marketing experts often develop the stories of virtual influencers, creating narrative arcs that reflect their personalities and values (Gannon & Prothero, 2018). For example, Lil Miquela's narrative includes details about his friendships, his daily adventures and his opinions on social issues, humanizing the character and increasing his perceived authenticity.

Personalization is another crucial aspect in the development of personal and behavioral characteristics. AI algorithms allow virtual influencers to adjust their interactions based on followers' individual preferences and behaviors. This personalization can include modifying the tone of voice, choosing conversation topics and adapting responses to better resonate with different audience segments (Jin, Muqaddam, & Ryu, 2019). Personalization increases the relevance of interactions and promotes deeper and more meaningful engagement.

Voice synthesis also contributes to the development of the personal

characteristics of virtual influencers. Advanced voice synthesis techniques allow influencers such as Hatsune Miku to speak and sing in a way that sounds natural and expressive (Ito, 2012). The ability to adjust the tone, intonation and emotion of the virtual influencer's voice is key to creating an engaging and authentic experience for the audience. This improves perceived authenticity and allows for a greater variety of interactions and experiences.

Finally, digital presence management is essential to maintain the coherence of the personal and behavioral characteristics of virtual influencers. This includes coordinating their activities and interactions on various social media platforms, ensuring that the image projected is consistent with their identity (Hudders, De Jans, & De Veirman, 2021). Effective digital presence management helps to solidify the influencer's identity and promote ongoing, meaningful engagement.

Developing the personal and behavioral characteristics of virtual influencers is a systemic process that integrates AI, machine learning, NLP, storytelling and personalization. These technologies work together to create virtual personalities that are authentic, interactive and adaptable, redefining the possibilities of influencer marketing. The ability to build and maintain a convincing identity is crucial to the success of virtual influencers, fostering a deep and lasting engagement with audiences. This approach offers new directions for future research and practice in the field of influencer marketing, contributing significantly to the existing literature.

3.2 Narrative and Consistency

3.2.1 Consistent and coherent narratives over time

Consistent storytelling is crucial in building the identity of virtual influencers, directly affecting the perception of authenticity and engaging audiences. It involves creating a continuous and coherent arc that reflects the influencer's personality, values and experiences, reinforcing perceived authenticity and fostering a deep emotional connection with followers, essential for success in influencer marketing.

Goffman (1959) proposes that identity is a continuous performance, necessary to be perceived as authentic. For virtual influencers, each interaction and piece of content

must align with the previously established personality and story, helping to build a cohesive image and strengthening the emotional connection with followers (Gannon & Prothero, 2018).

Consistency in storytelling is also essential for building trust, with influencers with coherent stories and behaviors seen as more reliable and authentic. Such consistency is especially crucial for virtual influencers due to the distrust associated with their artificial nature (Audrezet, de Kerviler, & Moulard, 2018).

In addition, a consistent narrative increases audience engagement, with studies showing that followers are more likely to engage with influencers who present a continuous and engaging story (Hughes, Swaminathan, & Brooks, 2019). Influencers like Lil Miquela who use detailed narratives about their lives strengthen the sense of closeness and ongoing interest (Robinson, 2020).

Narrative management involves coordination between scriptwriters, developers and marketing strategists to ensure that every aspect of the influencer's story is aligned with their personality and values. This integrated approach is vital for maintaining consistency and authenticity over time, especially in a dynamic digital environment where consumer expectations can change rapidly (Jin, Muqaddam, & Ryu, 2019).

Transparency is another crucial dimension of consistent storytelling. It is important that followers perceive the influencer's story as sincere and not artificially manipulated, reinforcing perceived authenticity and increasing trust and engagement (Beverland, 2006).

Consistent narratives also help to mitigate risks associated with over-commercialization. When stories and interactions are aligned with the influencer's characteristics and values, commercial partnerships can be integrated in a more natural and less intrusive way, maintaining perceived authenticity and preventing followers from feeling manipulated (Boerman, Willemsen, & Van Der Aa, 2017).

Maintaining a consistent narrative is essential to building authentic and engaging virtual identities. Virtual influencers who manage to maintain coherent and personalized stories build a trustworthy and emotionally resonant image, promoting

lasting engagement. The integration of narrative elements, use of AI for personalization and transparency are critical components to ensure that the narrative remains authentic and effective. Understanding and strategically applying consistent storytelling offers opportunities and insights for influencer marketing, contributing significantly to existing literature and defining future directions for research and practice.

4 PUBLIC PERCEPTION OF AUTHENTICITY

4.1 Factors Influencing Perceived Authenticity

4.1.1 Comparison between human and virtual influencers

The public's perception of authenticity is a crucial element in influencer marketing, directly influencing the engagement and trust of followers. In the context of virtual influencers, perceived authenticity is shaped by a series of factors that determine the success of these digital entities in establishing an emotional and trusting connection with their audience. To understand these factors, it is useful to compare virtual influencers with human influencers, highlighting the differences and similarities in the way authenticity is constructed and perceived.

One of the main factors influencing perceived authenticity is transparency. Human influencers are generally valued for their ability to share personal and vulnerable aspects of their lives, which creates a sense of closeness and trust (Abidin, 2015). Virtual influencers, on the other hand, face the additional challenge of being artificial creations. Transparency about the digital nature of the influencer is essential to mitigate possible feelings of deception among followers. For example, Lil Miquela directly addresses his virtual identity in his posts, which helps reinforce his perceived authenticity (Robinson, 2020). This open approach can paradoxically increase trust, as followers appreciate honesty about the influencer's upbringing.

Consistency is another critical factor in the perception of authenticity. Human influencers who maintain a coherent narrative and consistent behavior over time are often seen as more authentic (Gannon & Prothero, 2018). For virtual influencers, consistency is equally important. The use of dedicated scriptwriters and content teams

helps to ensure that virtual influencers' stories and interactions are aligned with their established personality and values, creating a cohesive and trustworthy image (Jin, Muqaddam, & Ryu, 2019). Visual consistency, through the use of computer graphics and animation, also contributes to a more stable and authentic perception of the virtual influencer.

Personalized interaction is a third significant factor. Human influencers are able to respond in a direct and emotionally engaging way to their followers' interactions, which reinforces authenticity (Hughes, Swaminathan, & Brooks, 2019). Virtual influencers use natural language processing (NLP) technologies to simulate this personalization, responding to comments and messages in a way that feels spontaneous and human (Lee, 2019). The ability to interact in a personalized and empathetic way is crucial to building an emotional connection and increasing perceived authenticity.

The congruence between the influencer's image and the brands they promote also affects perceived authenticity. Human influencers who choose to promote products that align with their values and interests are seen as more genuine (Schouten, Janssen, & Verspaget, 2019). Virtual influencers need to follow the same logic. Commercial partnerships that are in tune with the virtual influencer's narrative and values are more effective at maintaining authenticity and audience trust. For example, Lil Miquela's campaigns for fashion brands that reflect her style and personality are better received by her followers (Robinson, 2020).

Consistent and engaging storytelling is another factor that underpins authenticity. Human influencers often share their personal journeys, creating an ongoing story that followers can follow and identify with (Marwick, 2015). Virtual influencers, through scriptwriters and content strategies, must build narratives that are equally engaging and coherent. The ability to tell stories that resonate emotionally with followers helps solidify the perception of authenticity, even when the influencer is a digital creation (Gannon & Prothero, 2018).

Finally, adapting to change and evolving the narrative are important for

maintaining relevance and authenticity. Human influencers adapt their stories as their lives and the context around them change. Virtual influencers must also evolve their narratives to reflect new trends, events and feedback from followers. Flexibility in storytelling, without losing coherence, helps maintain perceived authenticity and continuously engage audiences (Tussyadiah, 2020).

In comparison, human influencers have the advantage of physical presence and genuine emotions, which naturally increase the perception of authenticity. They can show real vulnerability and spontaneity, elements that are challenging for virtual influencers to replicate convincingly. However, virtual influencers, with the use of advanced technologies and careful management of narrative and interaction, can achieve high levels of perceived authenticity, as long as they are transparent, consistent and personalize their interactions effectively.

The public's perception of authenticity is influenced by factors such as transparency, consistency, personalized interaction, brand congruence, engaging storytelling and continuous adaptation. Both human and virtual influencers can build authenticity, but virtual influencers must overcome additional challenges related to their artificial nature. Understanding these factors and how they apply to virtual influencers offers advances for the influencer marketing literature and can guide future strategies to maximize the effectiveness and engagement of digital influencers.

5 AUDIENCE ENGAGEMENT AND BRAND LOYALTY

5.1 Engagement Mechanisms

5.1.1 Strategies used by virtual influencers

Audience engagement and brand loyalty are central objectives in influencer marketing, especially in the context of virtual influencers. These influencers use a variety of strategies and mechanisms to maximize audience engagement, which is essential for building a loyal follower base and fostering brand loyalty. The combination of advanced technologies, engaging narratives and personalized interactions creates a unique experience that can generate deep and sustained

engagement.

One of the primary engagement mechanisms used by virtual influencers is the personalization of interactions. Using AI and machine learning algorithms, influencers can analyze follower behavior data to adjust their responses and content to resonate with individual preferences (Tussyadiah, 2020). For example, Lil Miquela responds to comments and messages with a personal touch, using natural language processing (NLP) to ensure that her responses seem genuine and spontaneous (Lee, 2019). This personalization increases engagement and strengthens the sense of emotional connection between the influencer and the audience.

Another crucial strategy is the creation of engaging and consistent narratives. Well-constructed narratives that evolve over time maintain followers' interest and encourage ongoing engagement (Gannon & Prothero, 2018). Virtual influencers like Lil Miquela develop complex stories that include their daily experiences, friendships and opinions on social issues. These narratives humanize the influencer and provide a rich context for interactions, making them more meaningful to the audience (Robinson, 2020). Consistency in storytelling is key to maintaining perceived authenticity and audience loyalty.

Interactivity also plays a central role in engagement mechanisms. Social media platforms such as Instagram, YouTube and TikTok offer interactive tools such as polls, Q&A sessions and live broadcasts, which allow for two-way communication between influencers and followers (Jin, Muqaddam, & Ryu, 2019). Virtual influencers use these tools to create interactive experiences that directly involve the audience, encouraging active participation and emotional engagement. Interactivity increases a sense of community and belonging, which is crucial for building a loyal follower base.

In addition, gamification is an effective strategy for increasing engagement. Incorporating game elements into virtual influencers' interactions and content can make the experience more fun and engaging for followers (Hamari, Koivisto, & Sarsa, 2014). For example, virtual influencers can create challenges, competitions and rewards to encourage active participation and ongoing engagement. Gamification increases

engagement and promotes a sense of achievement and satisfaction among followers, strengthening brand loyalty.

Collaboration with other brands and influencers is another important strategy. Strategic partnerships can increase the virtual influencer's visibility and introduce their audience to new brands and products in an authentic and engaging way (Schouten, Janssen, & Verspaget, 2019). Successful collaborative campaigns are those that are aligned with the influencer's personality and values, ensuring that the promotion feels genuine and not forced. These collaborations can generate significant engagement, as followers are more likely to trust recommendations that seem authentic and well-founded.

The use of high-quality, visually appealing content is also essential for engaging audiences. Virtual influencers use advanced computer graphics and rendering techniques to create images and videos that are aesthetically pleasing and visually impressive (Fitts, 2018). Visual quality attracts followers' attention and conveys professionalism and care, increasing the influencer's perception of value and authenticity. Visually appealing content is more shareable, which can increase reach and engagement.

Transparency and open communication with followers are equally important for engagement and brand loyalty. Virtual influencers who are transparent about their digital nature and business partnerships tend to be perceived as more authentic and trustworthy (Beverland, 2006). Honesty about the creation process and business objectives can reinforce followers' trust, encouraging deeper engagement and lasting loyalty.

The engagement mechanisms used by virtual influencers are varied, combining advanced technologies, content strategies, interactivity, gamification, collaborations, visual quality and transparency. These strategies increase audience engagement and promote brand loyalty, creating a loyal and involved follower base. The effective application of these mechanisms can provide perspectives and new directions for future research and practice in the field of influencer marketing, contributing significantly to

the existing literature.

5.2 Influence on Brand Loyalty

5.2.1 Relationship between consistent narrative and loyalty

The relationship between the consistent narrative of virtual influencers and brand loyalty is a central topic in influencer marketing, developing directions and advances in how well-constructed and coherent stories can strengthen consumer loyalty. Building an engaging and authentic narrative is essential to creating a lasting emotional connection with audiences, which is key to fostering brand loyalty. Virtual influencers, using advanced technologies and carefully planned content strategies, have the potential to establish this connection effectively.

Consistent storytelling is a key element in building brand loyalty. A continuous and coherent story keeps followers interested and helps solidify the influencer's identity, making them more recognizable and trustworthy (Gannon & Prothero, 2018). When followers perceive that an influencer maintains a consistent narrative over time, they are more likely to develop a sense of familiarity and trust. This familiarity is crucial for brand loyalty, as consumers tend to be loyal to brands and figures they know and trust (Keller, 1993).

In addition, consistent storytelling contributes to the perception of authenticity, a critical factor in consumer loyalty. Virtual influencers who manage to maintain a coherent story in line with their values are seen as more authentic and genuine (Audrezet, de Kerviler, & Moulard, 2018). This perception of authenticity reinforces consumers' trust and encourages them to commit more deeply to the brands promoted by the influencer. For example, Lil Miquela, through her detailed and consistent narrative about her experiences and opinions, manages to create an authentic image that resonates with her followers and increases loyalty to the brands she promotes (Robinson, 2020).

Coherence in storytelling also facilitates the creation of a strong and cohesive brand identity. When virtual influencers promote products and services that align with their personal stories and values, they help build a brand identity that is clear and

consistent (Schouten, Janssen, & Verspaget, 2019). This congruence between the influencer's narrative and the brand's identity is key to strengthening consumer loyalty, as it creates a unified and trustworthy brand experience. Consumers who perceive this congruence are more likely to develop an emotional connection with the brand and remain loyal to it over time.

Personalized interaction, facilitated by AI technologies, also plays an important role in the relationship between consistent storytelling and brand loyalty. Virtual influencers can use machine learning algorithms to adjust their interactions and content based on followers' individual preferences and behaviors (Tussyadiah, 2020). This personalization increases the relevance of messages and helps reinforce the consistent narrative, making interactions more meaningful and memorable for consumers. Personalization increases engagement and strengthens brand loyalty by creating a more personalized and satisfying experience for the consumer.

Visual aesthetics and content quality are other important aspects that support consistent storytelling and brand loyalty. Virtual influencers use advanced computer graphics and rendering techniques to create content that is visually appealing and consistent with the established narrative (Fitts, 2018). Visual quality attracts the attention of followers and reinforces the perception of professionalism and authenticity, increasing consumer trust and loyalty. Visually consistent content helps to solidify the influencer's identity and promote a strong and cohesive brand image.

Transparency and open communication with followers are also key to keeping the narrative consistent and strengthening brand loyalty. Virtual influencers who are transparent about their digital nature and business partnerships are perceived as more authentic and trustworthy (Beverland, 2006). Honesty about the creation process and business objectives can reinforce followers' trust and encourage deeper engagement and lasting loyalty. This transparent approach is particularly important in a digital environment where authenticity is highly valued.

The relationship between consistent storytelling and brand loyalty is deeply intertwined. The ability of virtual influencers to maintain a coherent and authentic story

is key to building the trust and familiarity that underpin consumer loyalty. Advanced technologies, such as artificial intelligence, facilitate the personalization and interaction that reinforce this narrative, while visual quality and transparency increase the perception of authenticity. Understanding and applying these principles can lead to more effective and sustainable influencer marketing campaigns, making a significant contribution to the influencer marketing literature and offering new directions for future research and practice.

6 PROPOSED THEORETICAL FRAMEWORK

6.1 Integration of concepts

6.1.1 Consumer psychology, digital communication and influencer marketing

Building a robust theoretical framework for understanding virtual influencers and their impact on influencer marketing requires the integration of concepts from consumer psychology, digital communication and influencer marketing. This framework must be able to explain how virtual influencers create and maintain their perceived authenticity, engage audiences and influence consumer behavior in a meaningful and sustainable way.

Consumer psychology provides the basis for understanding how and why consumers connect emotionally with virtual influencers. Self-determination theory, proposed by Deci and Ryan (2000), suggests that individuals are motivated by fundamental psychological needs for autonomy, competence and relatedness. Virtual influencers who manage to satisfy these needs through their interactions and narratives are more likely to engage consumers deeply. Perceived authenticity is crucial here; consumers who perceive an influencer as authentic feel more connected and satisfied, which increases engagement and loyalty (Audrezet, de Kerviler, & Moulard, 2018).

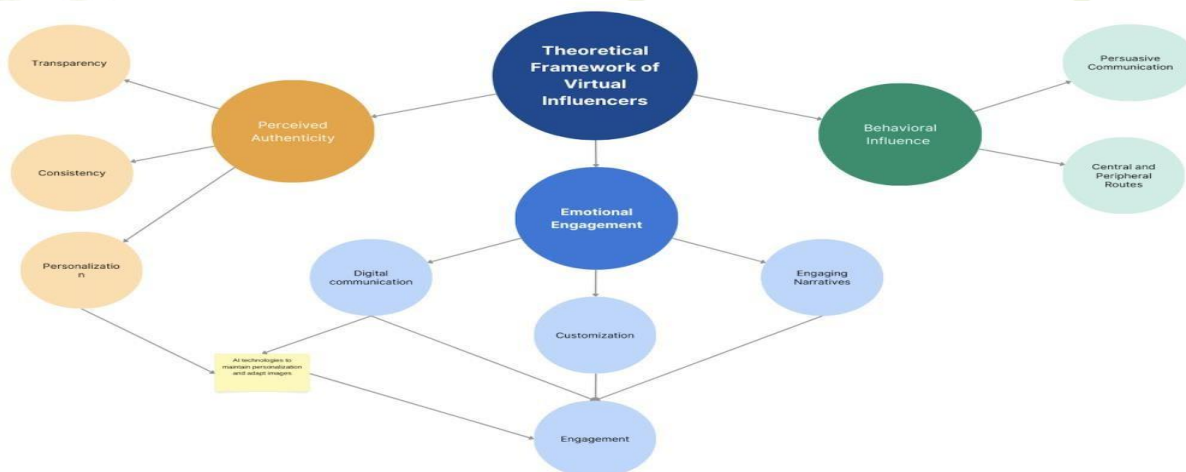
Digital communication, in turn, explores the channels and methods through which virtual influencers transmit their messages and interact with their audiences. Shannon and Weaver's (1949) communication model can be adapted to the digital context, where the effectiveness of the message depends on encoding (how the message

is created), the channel (the digital platform used) and decoding (how the message is received and interpreted by the audience). Virtual influencers use advanced AI technologies to personalize and adapt their messages, increasing the relevance and impact of communications (Tussyadiah, 2020). The ability to adapt messages in real time based on audience feedback is key to maintaining a consistent and engaging narrative.

In the field of influencer marketing, the theory of persuasive communication, as proposed by Petty and Cacioppo (1986) through the Elaboration Likelihood Model (ELM), is particularly relevant. The ELM suggests that persuasion can occur through two routes: the central route, which involves careful and rational consideration of the arguments presented, and the peripheral route, which involves the influence of superficial cues, such as the attractiveness of the communicator. Virtual influencers can operate on both routes, offering substantive content that cognitively engages followers and using visual and narrative elements to appeal emotionally (Petty & Cacioppo, 1986).

Integrating these concepts, the proposed theoretical framework can be structured into three main components: perceived authenticity, emotional engagement and behavioral influence, as shown in Figure 1 below:

Figure 2 - Theoretical Framework of Influence Marketing Developed by Virtual Influencers



Source: Own Authorship (2024)

Perceived authenticity is the core of the framework, directly influencing engagement and behavioral influence. Based on consumer psychology, perceived authenticity is built through transparency, narrative consistency and personalization of interactions (Audrezet, de Kerviler, & Moulard, 2018). Digital communication amplifies this authenticity by enabling personalized, real-time interactions that respond to consumers' individual needs and preferences (Lee, 2019). AI technology is crucial to maintaining this personalization in a scalable and efficient manner.

Emotional engagement is mediated by perceived authenticity and is key to making a deep connection with the audience. Using concepts from consumer psychology, such as self-determination theory, virtual influencers can satisfy consumers' psychological needs by creating a strong emotional connection (Deci & Ryan, 2000). Digital communication facilitates this engagement through engaging narratives and personalized interactions, which maintain the interest and attention of followers (Gannon & Prothero, 2018). Interactivity and gamification, supported by digital technologies, are also effective strategies for increasing emotional engagement (Hamari, Koivisto, & Sarsa, 2014).

Behavioral influence results from emotional engagement and perceived authenticity, leading to changes in consumer attitudes and behaviors. ELM suggests that virtual influencers can persuade followers through both substantive arguments (central route) and emotional and visual cues (peripheral route) (Petty & Cacioppo, 1986). The effectiveness of this persuasion depends on influencers' ability to tailor their messages to maximize relevance and impact, using consumer behavior data and machine learning algorithms (Tussyadiah, 2020).

This theoretical framework explains how virtual influencers operate and offers a guide to creating effective influencer marketing strategies. Integrating the concepts of consumer psychology, digital communication and influencer marketing provides a holistic understanding of the dynamics at play, allowing brands and marketers to develop more authentic, engaging and persuasive campaigns.

The proposed theoretical framework integrates fundamental concepts from

consumer psychology, digital communication and influencer marketing to offer a comprehensive view of how virtual influencers can build authenticity, engage emotionally and influence behavior. This interdisciplinary approach provides a solid foundation for future research and practice in the field of influencer marketing, contributing significantly to the existing literature and opening up new directions for academic and professional exploration.

7 CONCLUSION

This study investigated how the identity and narrative of virtual influencers are constructed and maintained over time, and the implications of this construction for perceived authenticity and audience engagement. We found that perceived authenticity is a core component that underpins emotional engagement and directly influences consumer behavior. Consistent storytelling, personalization of interactions and the use of advanced technologies such as AI are essential to maintaining this authenticity and creating a deep emotional connection with followers. In addition, personalization and transparency have been identified as critical factors that strengthen consumer loyalty and the effectiveness of marketing campaigns.

The central question that guided this study was: "How does AI contribute to the construction of virtual influencers' identities and narratives, and what are the implications of this construction for perceived authenticity and audience engagement?" The results show that AI plays a key role in personalizing interactions and maintaining a consistent narrative, which in turn increases perceived authenticity and audience engagement. The article's objectives were achieved by clarifying the mechanisms by which virtual influencers build and maintain their identities and narratives, and by highlighting the importance of advanced technologies and content strategies for effective influencer marketing.

This study makes a significant contribution to the influencer marketing literature by offering an integrated theoretical framework that encompasses consumer psychology, digital communication and influencer marketing. The research provides

detailed insights

into the essential elements that underpin the identity construction and engagement of virtual influencers, offering practical guidelines for brands seeking to utilize virtual influencers in their marketing strategies. The application of AI technologies to personalize interactions and maintain a consistent narrative is highlighted as a crucial practice for building authenticity and deeply engaging consumers, fostering brand loyalty.

For the successful implementation of the strategies discussed, it is recommended that brands invest in advanced AI and machine learning technologies to personalize the interactions of virtual influencers. Teams of scriptwriters and content creators should be mobilized to develop coherent narratives aligned with the influencer's identity. Transparency about the influencer's digital nature and commercial partnerships is also essential to maintain audience trust. Continuous measurement of the impact of campaigns through data analysis will allow adjustments to be made in real time, guaranteeing the relevance and effectiveness of the strategies adopted.

Although this study offers a general and accurate perspective, it is not without its limitations. The research focused primarily on examples of successful virtual influencers, which may not represent the full range of possible experiences with virtual influencers. In addition, the reliance on advanced technologies and data analysis requires significant resources, which may limit the applicability of the recommendations for smaller brands. The rapid evolution of AI technologies also means that strategies that are effective today may need to be adapted in the future.

To deepen understanding of the impact of virtual influencers, future research could explore the effectiveness of different types of content and narratives on various social media platforms. Longitudinal studies can help understand how the perception of authenticity and audience engagement evolve over time. In addition, investigations into the ethical and psychological implications of using virtual influencers can have important implications for ensuring responsible practices in digital marketing. Research into the effectiveness of virtual influencers in different cultures and contexts

can also expand the scope and applicability of the strategies discussed.

This study provides a robust theoretical basis and practical guidelines for the use of virtual influencers in influencer marketing. The integration of perceived authenticity, consistent storytelling, personalization and advanced technologies offers a clear path for brands wishing to deeply engage their consumers and foster brand loyalty. With the rapid evolution of digital technologies, continuing to explore and adapt these strategies will be crucial for continued success in the field of influencer marketing.

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