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VIRTUAL VOICES FOR SUSTAINABLE VALUES: EXPLORING CONTENT THEMES AND ADVOCACY STRATEGIES IN THE SUSTAINABILITY PROMOTION OF VIRTUAL INFLUENCERS

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ABSTRACT:

As the concept of sustainability has gained significant attention in recent years as a critical response to escalating environmental challenges and societal shifts, the influence of virtual influencers in promoting sustainability has become a focal point of inquiry. The purpose of this research is to explore the prevalent content themes utilised by virtual influencers to promote sustainability and examine the communication and advocacy strategies they employed in conveying messages related to social and environmental causes. With a qualitative approach and content analysis methodology, the study selects four virtual influencers known for advocating sustainability and analyses a dataset of 137 Instagram posts spanning two years (2022, 2023). Findings indicate that virtual influencers actively engage in advocating for wildlife and nature conservation as the most popular theme, with two distinct communication strategies identified: raising awareness by problematising threats to wildlife and showcasing the beauty of nature and conservation efforts. Additionally, the research uncovers specific tactics employed by virtual influencers, including storytelling, visual content, interactive questions, and inspiring statements, to effectively communicate and advocate for sustainability. This research contributes valuable insights to the dynamic landscape of virtual influencers' sustainability promotion efforts on social media.

KEY WORDS:

communication strategies, Instagram, social media, social performance theory, sustainability, virtual influencer

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1 Introduction

Sustainability, in its essence, encapsulates the imperative to balance societal, economic, and environmental needs to ensure a harmonious and enduring future (Breva-Franch et al., 2023; Mukherjee et al., 2023). With global challenges such as climate change, resource depletion, and social inequality on the rise, sustainability has evolved from a mere concept to a pressing global concern demanding urgent attention and collective action (Håk et al., 2016; Mantlana & Maoela, 2019). At the heart of the global sustainability agenda are the United Nations' 17 SDGs, a comprehensive blueprint to address interconnected challenges and foster sustainable development by 2030 (Katila et al., 2019; Stafford-Smith et al., 2017). These goals encompass a wide spectrum, including eradicating poverty, promoting gender equality, ensuring clean energy, and combating climate change. The SDGs serve as a compass, guiding nations, businesses, and individuals toward a more sustainable and equitable future (Stafford-Smith et al., 2017; Swain, 2018).

In this landscape, social media influencers emerge as influential agents capable of propelling the sustainability agenda forward. Their ability to connect with diverse audiences, transcend geographical boundaries, and shape cultural narratives positions them as catalysts for change. Influencers, through their digital platforms, have the power to amplify sustainability messages, making them accessible, relatable, and, most importantly, actionable for their followers (Schmuck, 2021; Yıldırım, 2021; Zhang & Mac, 2023). Influencers play a crucial role in elevating awareness around sustainability issues. Whether advocating for eco-friendly practices, raising consciousness about responsible consumption, or shedding light on environmental injustices, influencers have the ability to turn complex topics into digestible, engaging content that resonates with their audience (Jacobson & Harrison, 2022; Kapoor et al., 2023; Yıldırım, 2021). The influence of social media figures extends beyond mere awareness creation; it permeates into shaping consumer behaviour (Schmuck, 2021; Wu et al., 2023). Influencers can steer their followers towards sustainable choices by endorsing eco-friendly products, promoting ethical brands, and fostering a culture of conscious consumption (Jacobson & Harrison, 2022; Ki et al., 2023; Wu et al., 2023). This shift in consumer behaviour, when multiplied across millions of followers, can have a profound impact on industries and contribute to sustainable development (Moilanen, 2023; Tomazos, 2022). The urgency of addressing environmental challenges and achieving Sustainable Development Goals (SDGs) further amplifies the significance of influencers' roles in fostering a sense of responsibility among their diverse audiences. From lifestyle choices to consumption patterns, influencers have the capacity to instigate transformative shifts in behaviour, turning sustainability from a niche concern into a mainstream ethos.

The landscape of sustainability advocacy has found a compelling stage in the digital domain, and virtual influencers, with their unique capabilities, have become key players in conveying messages that transcend traditional boundaries. Leveraging advanced technologies and sophisticated storytelling techniques, virtual influencers navigate the complex terrain of sustainability, addressing environmental, social, and economic facets. This research aims to identify common content themes utilised by virtual influencers to promote sustainability and environmental causes. Additionally, it seeks to explore how these influencers communicate and advocate social and environmental issues through their content on social media platforms.

While sustainability and influencer marketing individually have gained attention, the synthesis of these two realms remains underexplored. By focusing on virtual influencers, the research opens new avenues for understanding how digital avatars contribute to sustainability narratives in the social media landscape. Despite their potential impact, there is a notable lack of understanding about virtual influencers and the specific nature of the

content they communicate. This study responds to a notable gap in the existing literature, where limited research has delved into the specific intersection of virtual influencers and sustainability promotion on social media. Additionally, building on previous research indicating that influencers play a pivotal role in shaping consumer behaviour, this study aims to decipher the strategies employed by virtual influencers in the realm of sustainable practices. By understanding their content themes, messaging strategies, and the resulting audience perception, the research seeks to uncover how virtual influencers wield their influence to drive sustainable consumption practices. This knowledge is particularly crucial as influencers are acknowledged as potent agents for disseminating information and transforming consumption habits.

Moreover, in the context of virtual influencers and sustainability promotion, this study contributes to a deeper comprehension of sustainability itself. By dissecting the content themes and messaging strategies employed by virtual influencers, the research sheds light on how sustainability is communicated, interpreted, and internalised within the digital realm. This enhanced understanding is crucial for both scholars and practitioners aiming to navigate the complexities of sustainability discourse in the age of social media. By unravelling the dynamics of virtual influencers' sustainability promotion on social media, this research contributes not only to the field of influencer marketing and sustainability but also fosters a broader and more nuanced understanding of the societal shift towards more sustainable lifestyles. This understanding, in turn, becomes a cornerstone for fostering meaningful change and engagement with sustainability on a global scale.

The remainder of this study is structured as follows: the next section will review existing literature on virtual influencers and the promotion of sustainability on social media platforms. Afterwards, we will clarify the research methodology before analysing and discussing the findings. The concluding part will clarify current constraints and outline possible directions for future research.

2 Literature Review

Sustainability Promotion in the Digital Age

In the contemporary landscape, sustainability has gained prominence globally due to heightened consumer pressure, investor activism, and corporate initiatives, aligning with Sustainable Development (Amoako et al., 2022; Szczuka, 2015). Conversations surrounding sustainability are on the rise, reflecting concerns about the environmental impact of consumerism and the urgent need to address SDGs (Solutions, 2019). Advertisers leverage sustainability as a strategic marketing opportunity to appeal to environmentally conscious consumers, contributing to SDG-related initiatives (Jacobson & Harrison, 2022; Jones et al., 2016). The fashion industry, witnessing rapid growth in sustainable practices, aligns with SDGs and is estimated to reach \$8.25 billion by 2031 (Businesswire, 2020). However, challenges arise as consumers express skepticism about advertising claims, necessitating authentic connections to influence sustainable fashion purchasing intentions and behaviour, thus contributing to SDG objectives (Yan et al., 2012).

Sustainability promotion encompasses the communication and advocacy efforts dedicated to advancing a vision of sustainable development at the core of societal evolution (Alkhatib et al., 2023; Mukherjee et al., 2023; Yildirim, 2021). This involves conveying values like inter- and intragenerational justice, exploring causes and raising awareness of environmental issues, and highlighting individual and societal possibilities for action. Sustainability communication addresses a wide range of issues, including climate change, biodiversity, consumption, production, and mobility (Godemann & Michelsen, 2011; Golob et al., 2023). It is a versatile concept that operates at various levels within the public sphere and facilitates interactions between diverse social systems (Godemann & Michelsen, 2011). Social media platforms, alongside traditional sources, have gained prominence as vital channels for information on sustainability, with a recent surge in scholarly exploration of social media influencers as communicators of environmental issues (Huber et al., 2022; Jha & Verma, 2023; Solutions, 2019). These influencers, known for building sizable social networks, play a crucial role in reducing complexity,

providing orientation, and generating interest in sustainability through their engaging and trustworthy digital presence.

Social Media Influencers and Sustainability

Social media influencers (SMIs) have risen to prominence in the world of digital communication, outshining traditional celebrities in terms of consumer influence and trust (Ooi et al., 2023; Tanwar et al., 2023). Their success hinges on their ability to cultivate intimate, one-sided relationships with their followers, often leading individuals to perceive them as friends (Breves et al., 2021). This phenomenon is known as parasocial relationships (PSR), where followers feel a deep connection with the influencer (Erickson & Dal Cin, 2018; Koay et al., 2023; Tran et al., 2019). As revealed by existing literature, the persuasive power of SMIs as opinion leaders and their substantial reach within their follower networks are driving the burgeoning field of influencer marketing (Thomas et al., 2023; Zhang & Mac, 2023). This persuasive power is rooted in the trust followers place in SMIs' recommendations, frequently resulting in the purchase of endorsed brand products (Claeys et al., 2023; Enke & Borchers, 2019). Social media serves as the ideal platform for sustainability promotion, where SMIs play a vital role in communicating environmental issues and advocating for sustainable lifestyles. Yang and colleagues (2020) demonstrated that influencers excel in garnering increased likes, higher levels of comment engagement, positive feedback, and empathy compared to brands when conveying messages related to corporate social responsibility (Moore & Yang, 2020). Their impact goes beyond product endorsement, extending to behaviour change and raising awareness about sustainability. Social media influencers are uniquely positioned to simplify complex environmental topics, foster awareness, and drive interest in sustainability (Berne-Manero & Marzo-Navarro, 2020). Their role as effective communicators and brand endorsers aligns with the growing focus on corporate social responsibility and cause-related messaging (Kapoor et al., 2023). Collaborations between organisations and influencers are becoming increasingly common, as influencers bridge the gap between sustainability awareness and action in the digital age.

Moreover, social media influencers have a knack for balancing creative self-expression with meticulously curated and commercialised public displays, aiming to convey specific interpretations of situations (Baker & Walsh, 2018; Enke & Borchers, 2019). Self-branding plays a crucial role in their success, with authenticity management and cultivating intimacy with followers at the forefront (Lou & Kim, 2019; Lu, 2023). Their content strategies focus on portraying a desirable image, embracing transparency, sharing personal stories, demonstrating relatability to followers, and forging personal connections (Tukachinsky & Stever, 2019). This multifaceted approach allows influencers to connect with their audience and communicate a wide range of messages, including those related to sustainability. The research conducted by Lu (2023) unveiled the tactics employed by zero waste influencers on Instagram to advocate for a zero-waste lifestyle. These strategies encompass challenging conventional consumption norms, showcasing the viability of zero waste living, illustrating the appeal of a zero waste lifestyle, and harmonising individual lifestyle considerations with broader socio-political issues (Lu, 2023).

As influencers continue to influence consumer behaviours and shape public perception, they are positioned to make substantial contributions to sustainability advocacy, guiding individuals toward environmentally conscious choices and practices (Kilipiri et al., 2023). Organisations, including research institutions, recognise the potential of collaborating with influencers to reach diverse audiences on social media. As sustainability continues to gain traction, the role of social media influencers becomes integral to bridging the gap between sustainability awareness and action (Buvár et al., 2023).

Virtual influencers and Sustainability

Virtual influencers represent a cutting-edge phenomenon in the realm of digital presence and social influence. Unlike traditional human influencers, they are computer-generated characters with meticulously crafted personas, appearances, and narratives (Franke et al., 2023; Xie-Carson et al., 2023). Virtual influencers navigate the online landscape, engaging with audiences across social media platforms, and collaborating with brands to endorse products and lifestyles (Kim & Park, 2023). These entities serve as a potent tool for brands to effectively connect with and attract specific target demographics through their digital personas (Jhawar et al., 2023; Lim & Lee, 2023).

The appeal of virtual influencers lies in their ability to seamlessly blend into the digital milieu, fostering a sense of novelty and curiosity (Kim et al., 2023). These AI-driven personalities often embody aspirational qualities, effortlessly adapting to trends and evolving cultural norms. As technology continues to advance, virtual influencers are poised to redefine the dynamics of influencer marketing, offering a unique intersection of creativity, artificial intelligence, and the evolving landscape of online influence (Jhavar et al., 2023; Kim et al., 2023). Virtual influencers can leverage their engaging digital presence to raise awareness about environmental issues, promote sustainable practices, and advocate for eco-friendly lifestyles. Given their unique position at the intersection of technology and influence, virtual influencers can communicate complex sustainability concepts in innovative and visually captivating ways, making these crucial messages more accessible to diverse audiences. As the discourse around sustainability expands, the potential for virtual influencers to drive positive change by inspiring collective action and shaping attitudes towards environmentally conscious choices is an exciting prospect within the ever-evolving landscape of social advocacy.

Theoretical framework

Social Performance Theory, rooted in the analysis of effective performances in the public sphere and drawing parallels between theatre and social actions, offers a cultural pragmatic approach to understanding social movements (Alexander, 2004). This theory, influenced by Durkheim, Geertz, and Turner, considers performance not as a pejorative term but as a strategic process where actors convey the meaning of their social situation (Durkheim & Fields, 1995; Geertz, 2005; Turner, 1975). Crucial components of social performance theory include actors, audience, background representations, foreground scripts, *mise-en-scène*, means of symbolic production, and social power. Background representations involve cultural codes and narratives, while foreground scripts act as immediate guides for actions. Effective social presentations strive to re-fusion distinct elements by establishing emotional connections with the audience and delivering skilful, genuine performances. Conversely, de-fusion takes place when foreground scripts seem artificial or forced to the audience (Alexander, 2004).

Applying social performance theory to the sustainability promotion reveals an intriguing perspective. In the context of Instagram, social media influencers act as actors, subscribers or Instagram followers as the audience, and social power is relatively diffuse. The movement's background representations include narratives on environmental issues, consumer culture, activism, and identity expressions (Alexander, 2004). Sustainability influencers harness cultural narratives to curate their Instagram content, shaping what can be termed as foreground scripts. Everyday materials are transformed into vehicles for symbolic expression, sometimes even playing active roles as participants in the narrative, utilising cultural narratives to craft their Instagram posts, forming what is referred to as foreground scripts. In this process, everyday materials transform into tools for symbolic production, occasionally taking on an active role as actors. Through these scripted narratives and symbols, influencers perform sustainable practices, aiming to motivate their audience to adopt eco-friendly lifestyles. Lu (2023) applied social performance theory to investigate lifestyle advocacy by influencers as a form of social performance, revealing Zero waste influencers utilise elements of performance, incorporating textual and visual scripts, means of symbolic production, and *mise-en-scène*, to bolster authenticity and encourage the adoption of zero waste practices.

Figure 1 illustrates the conceptual framework that applies to the sustainability promotion of virtual influencers. Within the Instagram context, the key actors include virtual influencers, and their audience, comprising followers and general Instagram users. The distribution of social power is notably diffuse, as anyone with Instagram access can participate and independently interpret the virtual influencers' performances. The backdrop for this framework encompasses narratives concerning environmental crises, consumption habits, activism, and personal expressions, as discussed in the literature sections above. These narratives serve as background representations. Virtual influencers adeptly use these cultural narratives to construct foreground scripts, which manifest in their Instagram posts. In this dynamic, everyday material items transform into tools for symbolic production, occasionally even taking on roles as actors. Through these scripts and symbolic representations, influencers enact eco-friendly and sustainable lifestyles, aiming to captivate the audience and inspire them to emulate these behaviours.

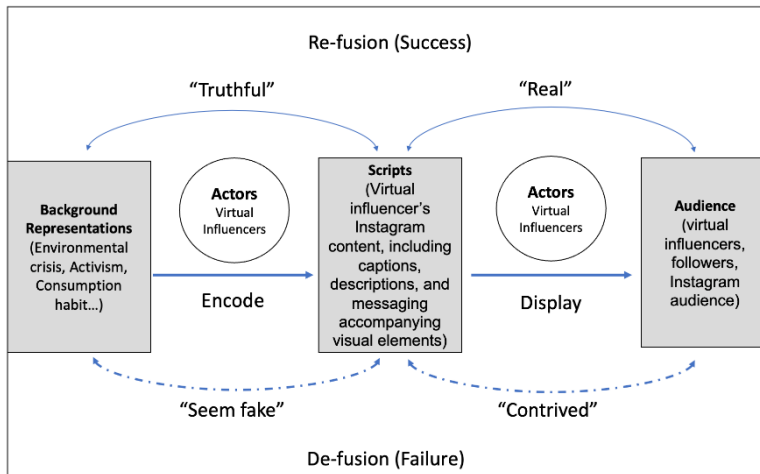


Figure 1. Social performance framework for sustainability promotion

Source: adapted from Alexander (2014) and Lu (2023)

Research Questions

Based on previous discussions, this study is designed to answer two research questions:

RQ1: What are the most common content themes used by virtual influencers to promote sustainability and environmental causes?

RQ2: How do virtual influencers communicate and advocate for social and environmental causes through their content and messaging on social media platforms?

3 Methodology

The study employs a qualitative approach and content analysis methodology to delve into the content themes and communication strategies employed by these influencers in promoting sustainability.

Case Selection

In the initial phase of case selection, we undertook the task of identifying suitable virtual influencers. To align with the research objectives, an extensive exploration of various social media platforms was conducted, encompassing Facebook, Instagram, Tiktok, Twitter, and Snapchat. Ultimately, Instagram was chosen as the primary platform for this research due to its widespread popularity among influencers and users. Its extensive user base, particularly among younger demographics, aligns with the target audience for sustainability promotion (Lu, 2023; Tafesse & Wood, 2021). Instagram's strong emphasis on visuals and storytelling enables virtual influencers to effectively convey sustainability messages and engage with their followers (Baker & Walsh, 2018; Cara, 2019; Leaver et al., 2020). Furthermore, the platform's use of hashtags and trends allows for the amplification of sustainability-related content, reaching a broader audience and fostering conversations about sustainable practices. Overall, Instagram's features and user base make it a strategic choice for researching virtual influencers' sustainability promotion efforts.

To refine the selection of virtual influencers, a set of criteria was meticulously applied: (1) The account must have a public profile, (2) Comments on the page should be enabled, (3) The account should not function as an online store, (4) It should not be affiliated with a paper magazine. (5) The account must exhibit regular activity, with the most recent post not exceeding a one-month timeframe (6) The account should have posted a minimum of five sustainability-related content pieces during the 2 past years (January 2022 – December 2023). In the subsequent

phase, four cases (as shown in Figure 2) were meticulously chosen, guided by the following criteria: (1) The selected pages must boast a minimum of 50,000 followers on Instagram, (2) Virtual influencers should hail from different countries.

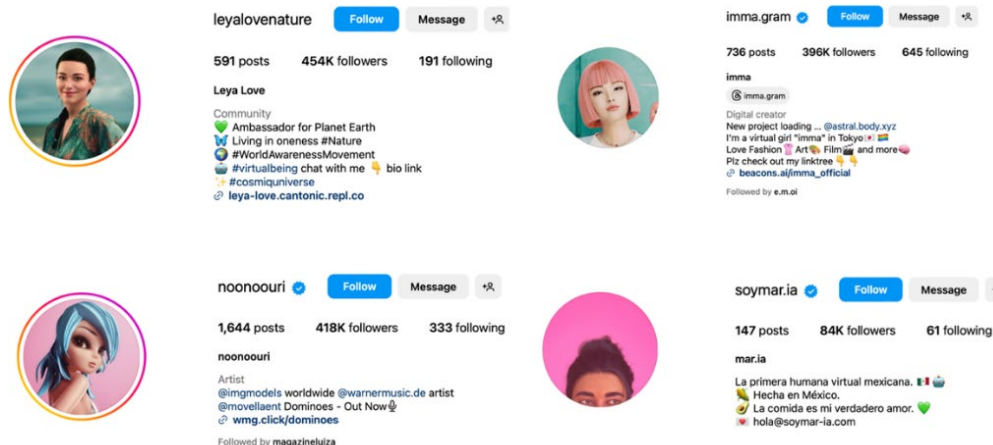


Figure 2. Instagram accounts of four chosen virtual influencers

Source: LeyaLove (n.d.), Imma (n.d.), Noonoori (n.d.), Mar.ia (n.d.).

Table 1 provides a comprehensive summary of information concerning the virtual influencers who promote social and environmental causes. This analysis spanned a period of two years, enabling a longitudinal examination that enhances the depth of our analysis and provides ample data for theory development. Ultimately, the dataset includes a total of 137 Instagram posts.

Table 1. Key characteristics of the cases

CASE	Leya Love	Noonoori	Imma	Mar.ia
Instagram profile link	https://www.instagram.com/leyalovenature/	https://www.instagram.com/noonoori/	https://www.instagram.com/imma.gram/	https://www.instagram.com/soymaria
Number of followers	449,000	418,000	396,000	84,100
Type of influencer	Macro	Macro	Macro	Micro
No. of posts	589	1,642	734	147
Country	Switzerland	Germany	Japan	Mexico
Gender	Female	Female	Female	Female
Year of joining Instagram	2020	2017	2018	2020
Year of verified account	Not yet	2018	2022	2020

Description	Leya, ambassador of #World Awareness Movement, is on a mission to inspire compassion, trust, gratitude, and sustainability awareness, aiming to touch the hearts of millions with a message of love for others and oneself (VirtualHumans, 2023)	A vegan fashion advocate, collaborates with global brands, using her platform for entertainment and environmental awareness. Her Instagram highlights planet-friendly themes like ocean plastic pollution and saving bees (Gmyrek, 2023)	Imma.Gram has partnered with the Finnish design house Marimekko to endorse their latest line of sustainable clothing.	She aims to improve Mexico by actively addressing issues like the environment, mental health, and gender equality. Her passion for inclusivity is evident, and she shares valuable tips on food and plants (Stockdill, 2022).
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Source: LeyaLove (n.d.), Imma (n.d.), Noonooouri (n.d.), Mar.ia (n.d.).

Data Analysis

An initial review of 657 posts from four virtual influencers was conducted, spanning January 2022 to November 2023. Among these posts, 137 were identified and categorised as sustainable content, each showcasing distinct content themes. The qualitative content analysis began with the initial coding of the collected content (Kynğäs, 2020). This involved systematically reviewing and categorising the elements within each post, focusing on recurring themes, messaging strategies, and communication patterns used by the virtual influencers. As the analysis progressed, themes emerged from the content, reflecting the influencers' focus on sustainability. These themes encompassed topics such as eco-friendly fashion, ethical consumption, environmental awareness, and sustainable lifestyle choices. The messaging strategies employed by the virtual influencers were examined to identify the language, tone, and persuasive techniques used to convey sustainability-related information to their followers. This analysis also considered the influencer's role in promoting sustainability and their alignment with the Sustainable Development Goals (SDGs). To ensure the consistency and validity of the analysis, inter-coder reliability checks were conducted, involving multiple coders independently reviewing and coding a subset of the content. Any discrepancies or disagreements were addressed and resolved to enhance the reliability of the findings. Concerning the ethical considerations of internet research, all data collected for analysis consisted of publicly available information on Instagram. The gathered data were securely stored by the author and were not utilised for any purpose beyond the scope of this study.

4 Findings

RQ1: What is the most common content themes used by virtual influencers to promote sustainability and environmental causes?

Table 2. Virtual influencer advocacy for social and environmental causes: Post distribution by theme (January 2022 – November 2023)

Theme	Leya	Noonooouri	Imma	Maria	Total
Sustainable Fashion		5	4	1	10

Wildlife and Nature Conservation	39	16		1	56
Reduced Inequality		16		2	18
Peace and Social Well-Being, Justice	4	23			27
Climate Action		1	1		2
Plant-Based Lifestyle	1	2			3
Sustainable Lifestyle: Responsible Consumption and Production	2	2	1	2	7
Environmental Awareness	5	5	1		11
Good Health and Well-Being		3			3
Sustainable posts	51	73	7	6	137
Total posts (From Jan 2022-Nov 2023)	N=204	N=329	N=55	N= 69	N= 657

Source: LeyaLove (n.d.), Imma (n.d.), Noonoori (n.d.), Maria (n.d.).

The data from Table 2 reveals that virtual influencers, particularly Noonoori and Leya, are actively engaged in advocating for social and environmental causes through their content and messaging on social media platforms. Noonoori emerges as the most prominent advocate, with a total of 73 posts across various categories, while Leya also demonstrates a strong commitment with 51 posts.

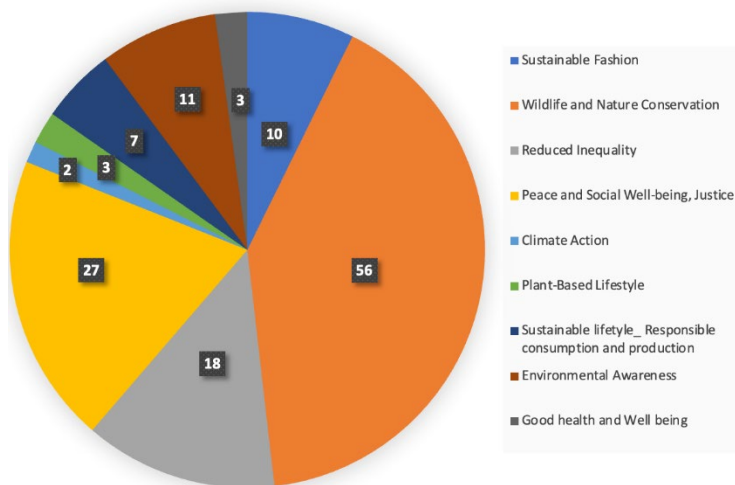


Figure 3. Content themes used by virtual influencers to promote sustainability and environmental causes

Source: LeyaLove (n.d.), Imma (n.d.), Noonoori (n.d.), Maria (n.d.).

As can be seen from Figure 3, one of the prominent themes is “Wildlife and Nature Conservation”, where influencers like Leya and Noonoori share captivating stories and photos of various animals, from foxes and owls to polar bears and Bengal tigers. Leya personalises these animals by giving them names like Rita (bee), making them “little friends”. This approach humanises the wildlife, creating a connection with the audience. Noonoori, on the other hand, emphasises education and awareness, providing informative content about endangered species and conservation efforts. They share significant milestones in wildlife preservation, such as the increase in tiger populations, to celebrate successes. Noonoori’s recognition and celebration of significant animal-related days, including *International Tiger Day*, *World Ocean Day*, *Penguin Awareness Day*, *Panda Day*, *World Turtle Day*, *World Bee Day*, and *World Whale Day*, are noteworthy. These celebrations help raise awareness of these animals

and the conservation efforts associated with them. By dedicating their platform to such causes, Noonouri encourages their followers to join in and support these important initiatives, fostering a sense of collective responsibility for our planet's well-being.

In the realm of peace, social well-being, and reduced inequality, virtual influencers play a crucial role. Noonouri, for instance, uses their platform to address social justice issues, from the conflict in Ukraine to supporting the LGBTQ+ community during Pride events. These influencers utilise their reach to advocate for a fairer and more just society. While wildlife conservation, peace, and reduced inequality dominate their advocacy efforts, there are limited posts related to sustainable fashion and lifestyle. However, when they do touch on these themes, they often use inspiring quotes and statements to encourage their followers to take action.

RQ2: How do virtual influencers communicate and advocate for social and environmental causes through their content and messaging on social media platforms?

There are two communication strategies used by virtual influencers for promoting sustainability. The first strategy is problematising consumption norms which draw attention to the issues and negative consequences associated with conventional patterns of consumption. They highlight the problems with overconsumption, wastefulness, and unsustainable practices, with the aim of encouraging their audience to rethink their consumption habits and adopt more sustainable and responsible choices.



Figure 4. A post of Imma's account shows her walking in a trash dress on the beach
Source: Imma (2022)

In Figure 4, Imma's impactful act of wearing a "trash dress" collected from the ocean while standing on the beach becomes a striking visual representation of her commitment to sustainability. What makes this performance even more compelling is the mise-en-scène she employs. It cleverly incorporates elements of everyday city life, such as chip bags, plastic bags, umbrellas, and dolls, creating a relatable and thought-provoking connection with the audience. This dramatic visualisation not only captivated the viewers but also successfully drew attention on various social media platforms. Imma's post generated a significant response from her followers, with comments like "dirty and beautiful", "junk art", and encouraging messages such as, "Congratulations, attitudes like yours can rule the world 🌍 🙌🏻❤️". The post garnered significant attention, with responses that highlighted the fusion of foreground scripts, representing Imma's message and performance, and background representations of

environmental crises. Imma’s direct message addressing the waste problem was a key factor contributing to the post’s success, as it prompted engagement and reflection among her followers. Figure 3 serves as a compelling example of how virtual influencers employ visual storytelling to effectively communicate and advocate for social and environmental causes.



Figure 5. A post on Noonoori’s account on pollution and unsustainable practices
Source: Noonoori (2023a)

The post by Noonoori, a virtual influencer (Figure 5) serves as another instance of challenging conventional consumption norms. In the Instagram photo, she is depicted lying on dark water amidst a significant amount of garbage, strategically using her hand to cover her eyes. The use of a visually striking image of her beautiful body with the environmental degradation creates a powerful visual impact. The caption “it’s all coming back to us” adds a layer of introspection and personal connection, encouraging followers to reflect on their own relationship with the environment. By hinting at a collective realisation, the caption implies that the consequences depicted in the image are not isolated but impact everyone. The numerous comments expressing sentiments like “Deeply sad” accompanied by broken heart icons ❤️ ❤️ ❤️ highlight the emotional impact of Noonoori’s post on the audience. These reactions reveal a collective sense of empathy and sadness evoked by the stark visual representation of environmental degradation.

Additionally, the second strategy employed by virtual influencers to promote sustainability involves demonstrating the beauty of nature and the Earth. Leya, in particular, frequently utilises this strategy with the intention of inspiring and establishing emotional connections with her audience as can be seen in Figure 6. The cultural codes and narratives of environmental appreciation and preservation form the background representations. Leya’s visuals, expressions, and activities in natural settings serve as the foreground scripts. These are the immediate referents for actions, portraying a positive and harmonious connection with nature. Leya employs various means of symbolic production, such as picturesque imagery, smiles, and expressions of enjoyment, to symbolise a positive and caring relationship with the environment. Leya’s strategy aligns with Social Performance Theory by leveraging various elements to create a performative narrative that inspires emotional connections and a deeper appreciation for sustainability among her audience, fostering a deeper appreciation for the environment and a desire to protect it.



Figure 6. Posts on Leya’s account on beauty of nature and nature conservation

Source: LeyaLove (2022a); LeyaLove (2022b)

Moreover, the findings reveal four tactics employed by virtual influencers in their content to communicate and advocate for social and environmental causes.

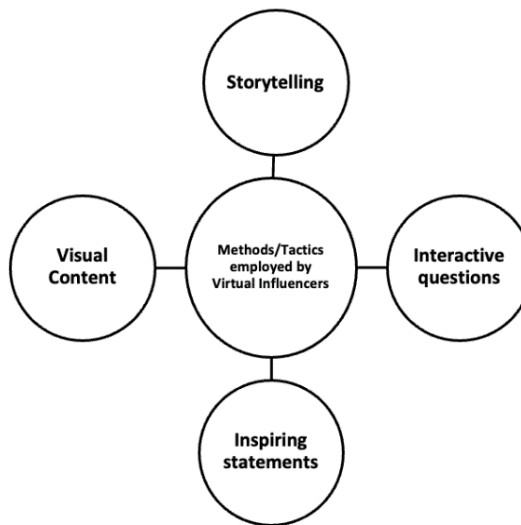


Figure 7. Methods employed by virtual influencers to communicate and advocate for social and environmental causes

Source: own processing, 2024

While the Instagram presentations of each virtual influencer vary based on their unique styles and areas of lifestyle focus, these four tactics consistently stand out as the most emphasised strategies for conveying sustainability messages. Figure 7 provides a summary of methods employed by four virtual influencers.

Firstly, virtual influencers, like Leya, skillfully use storytelling to emotionally engage their audience. By sharing personal experiences and real-life stories, they make the causes they support relatable and impactful.

On my early morning walk through the fields, I suddenly heard a soft, humming sound. 🐝 It grew louder and louder and I realised: somebody needs my help! Searching all around me, I finally found where the noise was coming from – a beautiful little bee was tumbling through the grass. 🍯 (LeyaLove, 2022c)

Or.

Today I met this beautiful female fox, and immediately felt connected to her feminine magic! 🦊. I spent all morning following her quick, elegant paws through the forest, feeling through her the mystic energy of #Nature... 🌿” (LeyaLove, 2022d)

These stories help create a deeper connection with their followers, who can better understand the significance of the issues at hand. For example, Leya’s stories about encounters with animals like bees and foxes help convey her passion for wildlife and nature conservation. Personalising animals by giving them names and considering them as “little friends” is a strategy used by virtual influencers like Leya to create a deeper and more emotional connection between their audience and the animals they encounter. By assigning names and human-like characteristics to these animals, it humanises them in the eyes of the viewers.

Secondly, virtual influencers often use interactive questions in their posts to encourage their audience to actively participate and act. It’s interesting to note that 34% of sustainable posts from these four virtual influencers incorporate interactive questions (71% of Leya’s posts use interactive questions). This engagement strategy allows them to actively involve their audience in discussions and actions related to social and environmental causes. By involving the audience, virtual influencers inspire collective action and a sense of shared responsibility. For instance, questions like “Do we take care of it together?” and “What do you think the beautiful energy of foxes is about?”, “Do you want to lift the barrier you have built against yourself? Share your answers with me?” encourage dialogue and reflection. By using interactive questions, virtual influencers create a two-way conversation, fostering a sense of community and encouraging their followers to participate and share their perspectives on these critical issues. This approach can be an effective way to raise awareness and inspire collective action among their audience.

Thirdly, virtual influencers often use inspiring statements to motivate their followers to support social and environmental causes and call for action. These statements serve as calls to action and reminders of the positive impact individuals can make. Phrases like “The world doesn’t just need to talk. The world MUST TALK”, “Let’s pledge today: Try ONE new vegan product and share your experience” or “Changing the world can start by changing what’s on your pizza” encouraging followers to make meaningful changes. Many of these messages promote inclusivity and empowerment. “Let’s embrace every race, religion, ethnicity, sexual orientation, and gender identity”, “Let our differences be our strength” convey a message of inclusivity and empowerment”, They encourage followers to embrace diversity and recognise that unity can be a source of strength. By doing so, these virtual influencers foster a sense of community and shared responsibility among their audience.

Fourthly, the use of visual content is indeed a powerful and essential aspect of how virtual influencers like Leya communicate and advocate for social and environmental causes. Images have a unique ability to capture the attention of the audience and convey messages effectively (Joffe, 2008). The strategic use of beautiful colours, artistic composition, and captivating visuals in their posts ensures that their content is eye-catching and memorable. In Leya’s case, her posts featuring the beauty of nature and her interactions with wildlife animals help create a strong emotional connection with her followers (Figure 8). These images not only showcase the beauty of nature but also serve to highlight the importance of preserving it. By demonstrating her deep appreciation and love for the natural world, Leya inspires her audience to develop a similar connection with and respect for the environment.

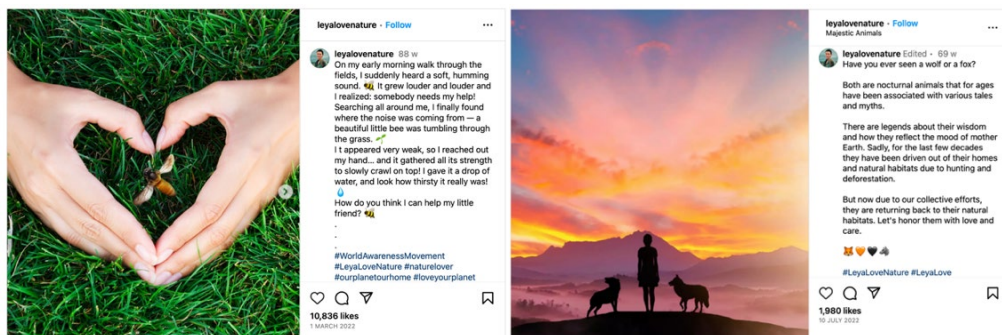


Figure 8. Posts from Leya’s account
 Source: LeyaLove (2022c); LeyaLove (2022e)



Figure 9. Posts for sustainability promotion on Noonoouri's Instagram

Source: Noonoouri (2023b)

Rather than relying solely on scientific facts and numbers, visual content has the unique ability to capture the attention and engage the audience on an emotional level. As can be seen in Figure 9, even when aiming to alert people about sea pollution and plastic, the Instagram photos are intentionally designed to be visually appealing. This approach is particularly effective in increasing interest and engagement towards sustainability because it bypasses potential information overload and connects with viewers on a more visceral level (Huber et al., 2022).

5 Discussion

Through the lens of Social Performance Theory, virtual influencers, acting as the social actors, strategically problematise conventional consumption norms by spotlighting issues such as overconsumption and wastefulness. By framing these issues as urgent concerns and presenting them in visually compelling ways, virtual influencers effectively engage their audience and prompt reflection, akin to skilful performers capturing the attention and emotions of their audience (Durkheim & Fields, 1995). This finding underscores the potential of virtual influencers as effective agents for promoting sustainability and influencing consumer attitudes and behaviours, in line with previous studies on the persuasive power of social media influencers (Balaban et al., 2022; Lehbrink, 2020; Liu & Zheng, 2024). Furthermore, the strategy of demonstrating the beauty of nature and the Earth can be viewed as a form of social performance aimed at fostering emotional connections with the audience. Virtual influencers, through their portrayal of picturesque imagery and expressions of enjoyment in natural settings, evoke emotional responses and foster a deeper appreciation for the environment among their followers. This aligns with the concept of foreground scripts and mise-en-scène in Social Performance Theory, where actors utilise symbolic production and cultural narratives to create meaning and establish connections with the audience (Geertz, 2005).

Interestingly, virtual influencers leverage storytelling as a means to make the causes they support relatable and impactful to their followers, fostering a deeper connection and understanding of the underlying issues. As revealed by previous research, influencers were highly focused on establishing personal intimacy or forming an intimate bond with their followers (Duffy & Kang, 2020; Hudders et al., 2021). They utilised narratives to convey authenticity and prevent dilution of their meticulously crafted online identity (Katerynych et al., 2023). According to Stubb's

findings in 2018, blog posts utilising a storytelling format captured viewers' attention for a longer duration compared to those with informational content (Stubb, 2018). Moreover, Hudders et al. (2021)'s literature review provides insights that a desirable image, transparency, storytelling, demonstrating commonality with followers, and building personal intimacy are crucial content strategies for influencers (Hudders et al., 2020). Prior studies also reveal that storytelling helps to form Parasocial relationships between virtual influencer and audience, and thus enhance the virtual influencer's credibility (Bansal & Pruthi, 2023; Hulleman, 2023; Kennedy & Muzellec, 2022; Lim & Lee, 2023; Mirowska & Arsenyan, 2023; Moustakas et al., 2020; Roy, 2023; Stein et al., 2022).

Additionally, the use of visually compelling content by virtual influencers aligns with research highlighting the importance of visual communication in social media marketing (Maehle et al., 2022). Visuals have been found to capture attention more effectively than text alone and evoke stronger emotional responses, making them particularly potent tools for conveying messages and influencing behaviour (Joffe, 2008; Powell et al., 2015). Research has shown that the use of visuals can be highly effective in inducing emotions (Joffe, 2008; Skurka et al., 2018). Visual-based environmental-related narratives can elicit a wide range of emotions, from empathy and concern to a sense of urgency and even inspiration (Huber et al., 2022). By evoking these emotions, virtual influencers can create a stronger and more personal connection with their audience. Moreover, emotions play a significant role in motivating individuals to take action (Schreuder et al., 2016). While knowledge is important, it does not always directly translate into action. Emotions, on the other hand, can be powerful drivers of behaviour (Schreiner et al., 2021; Zsidó, 2023). When virtual influencers use visual content to evoke emotions related to social and environmental causes, they are more likely to inspire their followers to become actively involved and support these causes.

6 Conclusion

In conclusion, this research delves into the content themes and communication strategies used by virtual influencers to promote sustainability and environmental causes on social media platforms. The findings reveal a dynamic landscape of sustainability promotion, with virtual influencers adopting diverse approaches to engage their audiences and advocate for positive change. Among the prominent content themes, "Wildlife and Nature Conservation" stands out as a significant area of focus for virtual influencers. Their commitment to this theme is reflected in the stories, posts, and campaigns that shed light on the importance of protecting and preserving the Earth's precious ecosystems and the diverse range of species that inhabit them. Virtual influencers employ storytelling, interactive questions, visual content, and inspiring statements to emotionally engage their followers and foster a sense of shared responsibility. These strategies create a two-way dialogue, enabling influencers to connect with their audiences on a personal level and inspire collective action. As sustainability promotion continues to gain momentum in the digital landscape, the insights from this study can guide future efforts in leveraging influencer marketing for a more sustainable and environmentally conscious world.

The findings of this research offer significant implications for the fields of influencer marketing, sustainability promotion, and digital communication strategies. Firstly, the identification of a range of content themes commonly employed by virtual influencers highlights the diversity and adaptability of sustainability promotion. These insights can be valuable for brands and organisations seeking to collaborate with virtual influencers in crafting content that resonates with a broad audience. Secondly, understanding the communication and advocacy strategies used by virtual influencers provides insights into their ability to engage and mobilise audiences for social and environmental causes. These strategies can serve as a blueprint for other influencers and communicators aiming to drive positive change. Thirdly the alignment of virtual influencers with Sustainable Development Goals (SDGs) presents opportunities for influencers, brands, and organisations to support and contribute to the global sustainability agenda. This alignment underscores the potential for influencers to be powerful advocates for meaningful change. From a pragmatic perspective, examining messaging tactics and evaluating the effectiveness of performance using the social performance framework offers valuable insights into how virtual influencers can advance advocacy.

The research is constrained by the limited number of virtual influencers actively promoting sustainability during the study period. This restriction may hinder the ability to explore communication strategies among virtual influencers from various cultures, communities, and backgrounds. The research is limited in its ability to account for variations in approaches used by a broader set of influencers. Additionally, the research primarily examines the content and communication strategies of virtual influencers. It does not delve into audience sentiments and responses to sustainable posts. Future research could provide a more comprehensive understanding of the effectiveness of these strategies by including audience perspectives and feedback. Moreover, data collection relies on publicly available content on Instagram. Restrictions imposed by some influencers or platforms may lead to missing or incomplete data, potentially affecting the comprehensiveness of the analysis. Finally, the study exclusively investigates virtual influencers on Instagram. While Instagram is a prominent platform for influencer marketing, it may not capture the full spectrum of virtual influencers operating on other social media platforms, each with its own unique features and dynamics. The findings may not be easily transferable to influencers on different platforms.

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