An exploration of social media audience interactions with virtual influencer content on Instagram. A Netnography study.

Sara Kennedy Trinity Business School Laurent Muzellec Trinity College Dublin

Cite as:

Kennedy Sara, Muzellec Laurent (2022), An exploration of social media audience interactions with virtual influencer content on Instagram. A Netnography study.. *Proceedings of the European Marketing Academy*, 51st, (107811)

Paper from the 51st Annual EMAC Conference, Budapest, May 24-27, 2022



An exploration of social media audience interactions with virtual influencer content on Instagram. A Netnography study.

Abstract:

Audiences are presented with a growing number of fictional 'robot' influencers known as 'Virtual Influencers' (VI). Audiences are proactively engaging with these fictional characters. Global brands such as BMW and Calvin Klein are partnering with VI and yet little is known about the effect on brand to consumer relationships. Given the possible lack of authenticity of VI, it seems important to revisit and analyze these interactions. This pilot study explored how social media audiences respond to content shared by the 'Lil Miquela' VI profile on Instagram. This research investigates audience responses using a qualitative netnographic research design which uncovered six emerging response themes. Themes including purchase intention, novelty seeking, physical attraction, negativity, fake and robot clarity emerged. Through narrative analysis, potential theoretical underpinnings such as hedonism, uncanny valley, cognitive dissonance, congruency, transparency and the curiosity gap were correlated. This exploratory study sets the scene for future research and forms the introduction to a longitudinal study.

Keywords: virtual influencers, influencer marketing, social media marketing Track: Digital marketing & Social Media

1. Introduction of Paper

Virtual Influencers (VI) are taking the social media marketing landscape by storm. This pilot focused exclusively on Lil Miquela given her scale in following and engagement. Typically, marketers would select an influencer partnership based on source credibility authenticity factors including attractiveness, trustworthiness, or expertise. (Schouten et al, 2020, Ki and Kim 2019, Reinikainen et al, 2020) Given that this form of influencer is nonhuman, marketers must reconsider their approach when engaging a VI for promotional purposes. Building on the extent literature which to date concentrates on ethics and transparency and to gain an understanding as to what those potential criteria for brand engagement should be, we must move to understand the manner at which the audience is responding to the content currently being presented to them in their Instagram feeds.

2. Literature Review

There is a lack of consistency in terminology, classification, and definition of VI. The consensus is that they are influencers that look human but are not (Appel et al 2019, Vrontis et al 2020, Arsenyan & Mirowska 2021). A more rounded definition provided by Travers (2020) defines VI as "*a digital character created in imaging, animation, or rendering software. The digital character is then given a personality defined by a first-person view of the world, and made accessible via popular media platforms*"

The widely held belief is that computer generated imagery (CGI) techniques are at the core (Block & Lovegrove, 2021, Robinson, 2020) but there is disparity defining the mechanic of VI. Some believe that it is completely automated and driven by AI technology (Kumar et al 2019). In the case of Lil Miquela, Travers (2020) suggests it is a computer-generated image created by a team of humans including 3D designers.

The extent literature focuses mainly on human computer interactions. There is a body of 'The Uncanny valley' research explaining consumers sense of eeriness when a robot is too human. (Reichardt, 1978, Block & Lovegrove, 2021) However, the emergence of VI could contradict this Arsenyan & Mirowska, (2021) ¹as the consumer interacts with VI content in the knowledge that it's a 'robot' and are happy to do so. (Thomas & Fowler, 2020, Jang & Yoh, 2020, Yesiloglu & Costello, 2020). Ethics are called into question and brands could experience transgression without transparency (Robinson, 2019,) or if perceived to culture

¹ A comparison between human and virtual influencers showcase that there is still a preference for human influencer content albeit that non-human content is also accepted to a lesser degree.

jam (Block & Lovegrove, 2021). For a brand, developing content with a VI will require understanding given that there are many considerations.

Lou & Kim, (2019) showcase how content can influence provided it is informative or entertaining. The level to which it persuades is dependent on the parasocial relationship audiences have with the influencer they follow. (Hu et al 2020) The narrative is the context to which the message is disseminated. Influencers use aspirational and congruent content and narrative to build relationships. (Casalo et al, 2018, Ki and Kim, 2019) To strengthen ties, influencer characteristics such as; perceived expertise, trustworthiness, attractiveness, or similarity to the audience should be evident. (Ki and Kim 2019, Reinikainen et al, 2020) The higher the hedonic value of content, the more successful the outcome. (Jin & Ryu 2020) Through this, the influencer builds authenticity.

Authenticity can be achieved by authentic self-presentation of characteristics through curating original content whilst remaining true to their self. (Audrezet 2018). In the case of VI, a team of humans develop the content to simulate the characteristics of a human Instagram influencer. Even though VI cannot physically embody such characteristic, they are reaching large scale audiences and connecting with social media audiences. This raises questions on the importance of authenticity.

To understand this in the context of VI, this study aims to understand how social media audiences are responding to VI content.

3. Objectives:

- Evolve the extent research and to answer the call to develop deeper meaning to consumer behaviours. (Appel et al 2019, Vrontis et al 2020). This will contribute to the field of marketing literature by explaining consumer interactions whilst also providing marketers with clarity to assist in developing VI marketing strategies. This study is to explores the downstream effects ² of the social media audience responses to Lil Miquela³ content on Instagram.

Research Question:

What are the common response themes exhibited by social media audiences engaged with VI content on Instagram and what are the potential theoretical implications.

² Downstream effects focus on the Virtual Influencer to User relationship or the later stage of the investigation, upstream focus on the development behind the virtual influencer or earlier stage issues.

³ Lil Miquela is one of the world leading VI entities on Instagram, created by Brud in USA.

4. Method:

An exploratory netnographic qualitative pilot study was adopted. "*Netnography is a way to study social media that maintains the complexities of its experiential and cultural qualities*". Kozinets (2020). This methodology is primed to explain the underlying meaning behind interactions in online communities. (Bowler, 2010). Previous research in the field of VI has relied on self-reporting methodologies delivering precision of numerics without delving into the nature of natural interactions to unpack cultural cues. (Corbin and Strauss, 2015). Kozinets, who coined the term 'Netnography', developed a robust six step process to ensure rigour and validity in the outputs.

1. Research Planning:

A VI subject was identified. Lil Miquela, is the world's leading VI and 2018 Times most influential 'people'. There was consistent content posted accompanied by a proactive community that engaged at scale. An immersion journal was created to be ready to log findings. A summary log was extended to capture the core themes that would be identified.

2. Entrée

A passive role of observing the online community was adopted as responses were publicly available.

3. Data Collection

All data collected was logged for coding, interpretation and analysis in an Immersion Journal. A reflective log of thoughts were also added to this journal which assisted in analysis of the holistic data.

4. Interpretation & Analysis:

There were four modes of analysis utilised. The analysis approaches utilised were a hybrid of tools that were appropriate for the various stages including social content pictorial analysis, narrative analysis, conversation analysis and sentiment analysis

4.1 Stage One: Social Content Pictorial/Image Analysis

Social media content images (figure 1) were analysed to extract common pictorial themes. Song & Kim (2016) pose three overarching themes including; displaying inspiration (ideality), similarity (relatedness), informative (competence), which acted as the base for categorisation. Each post image conveyed human-like 'similarity' traits with robot narrative. Clothing is used as the catalyst to the narrative. Two subsequent posts of similar themes were released and by the third post, there was saturation in the variety of response type.



Figure 1. Lil Miquela Social Content Posts

lilmiquela THAT'S BOT (@parishilton voice) 🦂	lilmiquela Would you believe me if I said I fell after this? Good thing BOTS DON'T BLEED 😰 😂	lilmiquela spring break forNEVER 🚨 💀
Likes: 113,548	Likes: 66,816	Likes: 59,628
Comments: 724	Comments: 834	Comments: 583

Figure 2. Lil Miquela Narrative Analysis

4.2 Stage Two: Narrative Analysis:

The narrative was identified (figure 2) as a key differentiator as it centres on robot themes supported with a human-like visual. By applying the total key metrics to each post, it could explain which narratives were more engaging.

4.3 Stage Three: Conversation Analysis

Farina (2020) suggests that conversation analysis is an ideal tool to investigate social media interactions in a moment-by-moment time frame. This works well for the nature of Netnography. Comments were scanned as they emerged, and observations were noted along with screen shots to support key responses. Six conversational themes were derived from 2141 comments on three of Lil Miquela posts. (Table 1). The first iteration of analysis presented nineteen response themes.

4.4 Stage Four: Sentiment Analysis

The final analysis was to understand if each post was perceived positively or negatively. This sentiment was interpreted by the researchers own view.

5. Ensuring Ethical Standards:

Based on this passive approach, there was no requirement for ethical approval as all data was openly published, but reviewed were made throughout.

6. Research Representation:

All comments on each post were viewed on the Instagram platform and common response themes along with unusual responses were captured by screen shot and added to the immersion journal where the content was synthesised and considered.

5. Results & Discussion:

Whilst this study was exploratory, it provides both practical and theoretical implications for further research. Overall, the responses were positive, and users were intrigued and influenced by content seeded by Lil Miqueala. The first post attaches itself to celebrity Paris Hilton. This post had the highest volume of engagement with double the volume of likes. It also had the largest volume of 'fake' responses. The second post references roller-skating. It had the highest comments in comparison to the other posts and that could be due to the questioning nature of the narrative. The third post is a reference to spring break and the robot immortality. It had the lowest volume on both comments and likes.

5.1 Response Themes:

The key six response themes in Table 1 will be discussed with a potential theoretical under pinning for future research agendas.

Response Theme	Potential Underpinnings
Novelty seeking / Gaming (E.g. "Pin me")	Hedonic Value
Physical Attraction / Adoration (E.g. Use of emoji's that align with cultural	Emotional Attachment, Congruence, homophily
language – fire for hot, hearts etc)	
Purchase Intent	Cognitive Dissonance
Negativity (E.g. Dislike for the representation)	Uncanny Valley
Fake (E.g. clear non-authentic / out of context responses)	Transparency
Robot / Realness Query/ Clarity (e.g. is this a robot? V human – is this filtered?)	The Curiosity Gap

Table 1. Response Themes and Potential Underpinnings

5.1.1 Novelty seeking – Hedonic Value

Observations of gamification were present. Whether it was asking to be pinned or

- bonezrox Pin if u love your fans 1w * Pinned 26 likes Reply pryy_luvsyou pin if you like being a robot
- responded to, users enjoy playing with the novelty of robot interactions.

Figure 3. Novelty seeking response sample

Drawing on Carlson et al (2018), there is a stimulus-organism-response paradigm and Lil Miquela proactively set to propel this by playing a game to keep the audience tuned in. The hedonic nature is the entertainment derived by the audience.

5.1.2 Physical Attraction – Attachment, Congruence & Homophily.

Audiences proclaiming their love were observed. The levels to which those are attracted varies. Low-level responses displayed 'hot' flame emojis and deeper levels went to more explicit expressions. The clear satisfaction that many users show based on her look shows congruency that her image is in line with their tastes. There is relatability or homophily to their values or perception of their own self-representation.



Figure 4. Physical attraction response sample

5.1.3 Purchase Intention – Cognitive Dissonance

Despite knowing Lil Miquela isn't real, users display contradictory behaviours by asking about the origin of the clothes. What we don't know is if this contraction in behaviour stresses the individual. This is of prime importance for brand managers as it means that one cannot rule out a virtual influencer as a medium to drive purchase intent.



Figure 5. Purchase intention response sample

5.1.4 Negativity – Uncanny Valley

The levels of negativity were low across all three posts. The sense of eeriness that is discussed in Uncanny Valley literature is present.



Figure 6. Negative response sample

5.1.5 Fake / Not authentic

Posts from fake accounts posting illegible comments presented at scale on the 'Paris Hilton' post.



Figure 7. Fake response samples

A high volume of commentary within appeared within seconds. The question here is if these are voluntary interactions, outside of the developers control or if it's purchased engagement which is a non-transparent form of fluctuating metrics.

5.1.6 Robot Clarity – The curiosity gap

The curiosity gap is a widely used technique employed in content marketing. Marketers use a leading headline to drive engagement. Lil Miquela's developers script the content using robot narrative, supported by a visual representation that looks both human and augmented. This sparks huge curiosity and quest for clarity.



Figure 8. Robot clarity response samples

The above illustrates some of the emerging themes and potential theoretical underpinnings present in the online community of Lil Miquela.

6. Conclusion:

This pilot study's purpose was to gain an understanding behind the meaning of the conversations social media audiences are having with VI. There is rich data which requires a longitudinal and deeper analysis. In addition, it would benefit to compare and contrast responses and engagement to that of a human influencer.

Some interesting potential theoretical underpinnings emerged. including; hedonism, emotional attachment, congruency, cognitive dissonance, uncanny valley, transparency and the curiosity gap. For marketers and researchers, understanding how users respond to VI content ensures that campaigns are built with positive consumer outcomes.

References.

Appel, G., Grewal, L., Hadi, R. *Stephen, A*, (2020)The future of social media in marketing. *Journal of the Academy of Marketing Science* volume. 48, 79–95.

Arsenyan, J., & Mirowska, A. (2021). Almost human? A comparative case study on the social media presence of virtual influencers. *International Journal of Human-Computer Studies*, *155*, N.PAG.

Audrezet, A & Kerviler, G & Moulard, J. (2018). Authenticity under threat: When social media influencers need to go beyond self-presentation. *Journal of Business Research*. 117. Block, E. & Lovegrove, R. (2021) 'Discordant storytelling, 'honest fakery', identity peddling: How uncanny CGI characters are jamming public relations and influencer practices', *Public Relations Inquiry*.

Bowler, G. M. (2010). Netnography: A Method Specifically Designed to Study Cultures and Communities Online. *The Qualitative Report*, *15*(5), 1270-1275.

Casaló, L. V., Flavián, C., & Ibáñez-Sánchez, S. (2018). Influencers on Instagram: Antecedents and consequences of opinion leadership. *Journal of Business Research*, *117*, 510–519.

Corbin, J & Strauss, A. (2015). Basics of Qualitative Research. Techniques and Procedures for Developing Grounded Theory. Fourth Edition. ISBN: 9781412997461

Farina, M. (2020). Using conversation analysis for examining social media interactions. In A.

J. Tallon-Ballesteros, & C-H. Chen (Eds.), *Machine Learning and Artificial Intelligence: Proceedings of MLIS 2020* (pp. 172-177). (Frontiers in Artificial Intelligence and Applications; Vol. 332). IOS Press BV.

Hu, L., Min, Q., Han, S., & Liu, Z. (2020). Understanding followers' stickiness to digital influencers: The effect of psychological responses. *International Journal of Information Management*, *54*, 102169.

Jin, S. V., Muqaddam, A., & Ryu, E. (2019). Instafamous and social media influencer marketing. *Marketing Intelligence & Planning.*, *37*(5), 567–579.

Jang, H. and Yoh, E. (2020) "Perceptions of male and female consumers in their 20s and 30s on the 3D virtual influencer," *The Research Journal of the Costume Culture*. 28(4), pp. 446–462.

Ki, C. W., Cuevas, L. M., Chong, S. M., & Lim, H. (2020). Influencer marketing: Social media influencers as human brands attaching to followers and yielding positive marketing results by fulfilling needs. *Journal of Retailing and Consumer Services*, *55*, 102133.

Ki, C. W. C., & Kim, Y. K. (2019). The mechanism by which social media influencers persuade consumers: The role of consumers' desire to mimic. *Psychology & Marketing*, *36*(10), 905–922.

Kim, D. Y., & Kim, H. Y. (2021). Influencer advertising on social media: The multiple inference model on influencer-product congruence and sponsorship disclosure. *Journal of Business Research*, *130*, 405-415.

Kozinets, Robert V (2020) Netnography. The Essential Guide to Qualitative Social Media Research. Third Edition. Sage Publishing. ISBN: 9781526444707

Kumar, V., B.Rajan, R.Venkatesan, & J.Lecinski (2019). Understanding the role of artificial intelligence in personalized engagement marketing. *California Management Review* 61 (4):135–55.

Lou, C & Kim, HK (2019) Fancying the New Rich and Famous? Explicating the Roles of Influencer Content, Credibility, and Parental Mediation in Adolescents' Parasocial Relationship, Materialism, and Purchase Intentions. *Front. Psychol.* 10:2567. Reichardt, Jasia (1978). Robots: Fact, Fiction and Prediction. London: Thames & Hudson. ISBN: 978-0140049381

Reinikainen, H., Munnukka, J., Maity, D., & Luoma-aho, V. (2020). 'You really are a great big sister'–parasocial relationships, credibility, and the moderating role of audience comments in influencer market- ing. *Journal of Marketing Management*, *36*(3–4), 279–298.

Robinson, B. (2020). Towards an Ontology and Ethics of Virtual Influencers. *Australasian Journal of Information Systems*, 24.

Song, S.-G., & Kim, D.-Y. (2016). A Pictorial Analysis of Destination Images on Pinterest: The Case of Tokyo, Kyoto, and Osaka, Japan. *Journal of Travel & Tourism Marketing*, 33(5), 687–701.

Travers, C (2020). How to Sponsor a Virtual Influencer. Virtualhumans.org. https://www.virtualhumans.org/article/how-to-sponsor-a-virtual-influencer

Thomas, VL & Fowler, K (2021) Close Encounters of the AI Kind: Use of AI Influencers As Brand Endorsers. *Journal of Advertising*, 50:1, 11-25.

Vrontis, D, Makrides, A, Christofi, M, Thrassou, A. (2021) Social media influencer marketing: A systematic review, integrative framework and future research agenda. *International Journal of Consumer Studies*. 45: 617–644.