

RUNNING HEAD: THE UNCANNY CELEBRITY

The Uncanny Celebrity: Exploring the Implications of Virtual Influencers on Instagram

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Influencers, defined as individuals “with a significant following on social media who [are] paid by brands to promote their products to said followers” have been a part of Instagram’s platform since its creation in 2010 (Kádeková & Holienčinová, 2018, Instagram, n.d.). Also known as micro-celebrities, influencers have found their own niches, gotten stoppered, and become profitable. A new wave of these micro-celebrities have risen on Instagram in the recent years. Known as virtual influencers, these computer generated (CG) characters have simultaneously broken the mold for influencers, as well as reinforced standards of westernized beauty and popularity.

Some of today’s most prominent virtual influencers are Miquela Sosa (known by her Instagram handle, @lilmiquela, figure 1), Shudu (@shudu.gram, figure 2), and recently, Colonel Sanders, Kentucky Friend Chicken’s revamped CG influencer of their own, complete with brand deals (@kfc, figure 3). These influencers have achieved a number of feats. Lil Miquela was voted as one of TIME magazine’s top 25 most influential people in the internet, has a successful music career, her own clothing line, over 1.5 million followers, and modeling deals (Time Staff, 2018). Miquela (and her creator team, Brud) were recently ‘sponsored’ by YouTube to attend Coachella in April 2019, where she interviewed artists about their music and posted these interviews on her social media platform. Shudu, one of the other primary virtual influencers this study focuses on, belongs to The Diigitals, a marketing firm who call themselves “The world’s first all digital modeling agency” (The Diigitals, n.d.). Currently, they have a roster of six models, one of which is an alien.



Figure 1. @lilmiquela

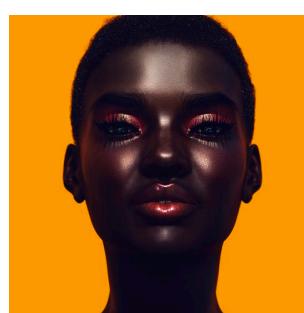


Figure 2. @shudu.gram



Figure 3. @kfc

Due to the exponential growth in popularity of these social media stars, along with the complete lack of research on their presence on Instagram, I am proposing an exploratory study, based off of previous research on the uncanny valley, influencers & micro-celebrities, and CG film actors & avatars, that examines people's perception of realness in these characters. This study will also attempt to make sense of why or how users are drawn to these digital creations over human influencers.

Much of the current research on computer generated characters has been on synthespians (virtual actors) and avatars (user-created video game characters). Avatars have historically been used as re-creations and displays of users' second selves, allowing people to construct their identity and inner self with unrestricted freedom (Shimizu, 2012). What makes virtual influencers different than avatars is the fact that they extend this unrestricted reconstruction of one's current identity (or an entirely new or false identity) into a more public scenario where they blend in with actual influencers and other Instagram accounts. Furthermore, the very nature of the term 'influencer' and the status of being a micro-celebrity on Instagram is exceedingly important when trying to understand where these CG characters came from and why they are so popular.

## **The Micro-Celebrity & the Influencer**

Due to the nature of social media, a new breed of celebrity have emerged, known as the micro-celebrity (alternatively known as the influencer). Similar to the performed concept of the 'celebrity,' the micro-celebrity is based upon portraying a certain behavior or characteristic that attracts a following (Marwick, 2013). What makes the micro-celebrity different than the celebrity, however, is the act of appealing to a specific niche of followers versus a widespread,

mainstream audience (Marwick, 2013). For example, compare Justin Bieber (celebrity) to Grace Beverly, more commonly known by her social media handle GraceFitUK (micro-celebrity/influencer). If someone were to pass Bieber on the street, they would most likely recognize who he is and react in a specific way due to his celebrity status. However, these passerbys, would have a very different reaction to GraceFit. Because she appeals to a niche community - females who are interested in fitness and relatable, lifestyle content - GraceFit is treated as a celebrity only to that specific community. If someone who falls into that niche passed her, they would have a very similar reaction as they would with Bieber (as a personal example, my housemates). However, someone who does not fall into that niche (myself, for example) would not have nearly the same reaction.

There are two ways to obtain micro-celebrity status: achieved and ascribed. Achieved micro-celebrity is a form of self-presentation, where the actor shares personal information about themselves and acknowledges their audience as a tight knit community in order to create a mass following (Marwick, 2013). The other way of achieving micro-celebrity is ascribed, where the actor is treated much more like a 'true' celebrity and is assigned a high status by the community that follows them (Marwick, 2013). A substantial difference that has emerged between celebrity and micro-celebrity is the way they interact with brands and sponsorships.

Due to the changing nature of today's media landscape, brands are turning towards influencer marketing to appeal to millennials. Millennials, the combination of Generation Y (born 1981-1991) and Generation Z (1992-2001), care more about social media than television, and will subsequently listen to relatable micro-celebrities they follow on social media over celebrities on TV commercials (Kádeková & Holienčinová, 2018, Mohr, 2017). Micro-celebrities

are popularly called influencers because they are seen as opinion leaders, and brands utilize their word of mouth to create viral campaigns that attract potential customers (Mohr, 2017). In other words, they influence their target niche to follow their lead and pursue the product or service they are promoting. Due to the fact that Generation Z primarily uses Instagram to communicate and entertain themselves, influencer marketing is notably powerful (3% of influencers can generate 90% of the overall effect) and a legitimate platform to invest one's time in (Mohr, 2017, Kádeková & Holienčinová, 2018).

## **Corporate Controlled Cyberstars**

Quite literally, a synthespian is a corporation's dream. They can perform anything the studio behind them sets their mind to: they are never busy, are able to 'be' in multiple places at once, and are cost effective (Creed, 2000). They do not experience human issues such as anxiety, desire, death, or trauma - instead, they are 'costumes' that can be manipulated in a number of ways (Creed, 2000). Furthermore, these CG creations are wholly scandal-free. The only cases in which a synthespian may be caught up in a publicized issue is if the studio behind the actor purposefully did so. By calculating when, where, and how these 'scandals' happen, the brand who owns the character can ensure they are continually on people's minds, on pop culture news websites, magazines, tabloids and more (Creed, 2000).

This is exactly what Brud, the company behind Lil Miquela and her CG counterparts Blawko and Bermuda, did when they created a multimedia storyline documenting Miquela's account 'hacking' by Bermuda. This event finally culminated with Miquela's realization that she was, in fact, not a real human. Just as Creed predicted, this story had people and news sites across the country tuned in to learn what was happening to her. This carefully constructed story

was only possible due to the unique properties of synthespians, and the complete control corporations such as Brud has over them.

## The Uncanny Valley

The uncanny valley was first coined by Japanese roboticist Masahiro Mori in 1970. Mori noticed that as his robots became more humanlike, they were seen as being increasingly cuter. However, once they became too close to being human, people found them creepy (Bode, 2006, Mori, 1970). This drastic dip from cute to creepy is denoted as ‘the uncanny valley,’ as it is at that point where the uncanny emerges, depicted in figure 4.

More recently, the uncanny valley has been applied to CG characters in film and video games. Bode explains that the uncanniness of a digital actor is “in part due to a framework of uncertainty about what it is to be human, informed by technological metaphors of organic life and the use of animation technologies to model or analyze the operations of this life” (Bode, 2006). The feelings elicited from the uncanny valley are very powerful, and can deter audiences or viewers from watching or purchasing a form of media. For example, the 2001 film *Final Fantasy: The Spirits Within* enlisted fully CG actors and environments in order to tell an immersive story and to create a character very similar to what Lil Miquela is today. However, the movie ultimately failed critically and in the box office because the synthespians in the film fell right in the depths of the uncanny valley: too perfect for an audience to be comfortable with and in a liminal space between computer animation and live action (Creed, 2000, Bode, 2006). The

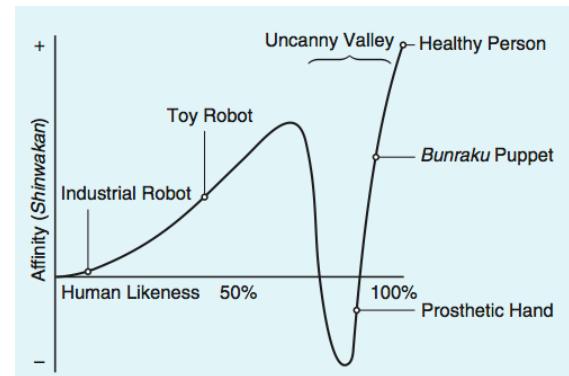


Figure 4. The Uncanny Valley (Mori, 1970)

feelings elicited from the uncanny valley were actually so powerful that they caused the studio that produced the movie to go out of business.

There are two important takeaways from the scholarly work done on the uncanny valley. The first is that people interpret and experience the uncanny valley differently - multiple scholars argue that “the uncanny is not a universal experience” (Bode, 2006). The second is that the unease and other negative emotions elicited from the uncanny valley are not permanent, and can diminish altogether. This is evident from studies based in both Russian and American culture. Early reviews of Russian cinema emphasized that simply seeing real people on screen was uncanny and uncomfortable (Bode, 2006). However, these reviews sifted to be more and more favorable as films became more popular. The same is true in American television history as well - animated anthropomorphic characters such as Betty Boop used to be seen as uncanny as well, but the cartoon is now considered to be a beloved classic (Bode, 2006). This begs the question, what will happen to virtual influencers and other synthespians in the future as they become more and more popular?

## **Human - Virtual Influencer Interaction**

The growing popularity of virtual influencers also has interesting implications for the scripts humans follow when interacting with each other and with robots. Essentially, humans utilize specific pieces of information which prime them to interact in a certain way, following a certain script (Edwards, Edwards, Spence, & Westerman, 2016). Generally, someone interacts with a human in very different ways than they do with a computer (such as Siri or another virtual assistant). Although interactions with robots, such as these virtual assistants, have been steadily increasing, there is a large difference based on whether or not a person is primed to interact with

another human versus a computer (Edwards et. al, 2016). In Edwards et. al's study, the scholars found that once participants learned they were interacting with a nonhuman, they were much more uncertain and less social.

Due to the fact that virtual influencers exist in a unique space between human and robots, it is understandable that humans may very likely interact differently with them versus another influencer or even a virtual assistant. For example, popular YouTuber Shane Dawson created a multiple part series investigating Miquela before it was revealed that she was not a human human. At some point in this series, he was on the phone with "her" and elicited very unique interactions because of the uncertainty with both her personality and possible status of a robot (Dawson, 2017). This leads to a whole new set of question about people's interactions with virtual influencers due to their unique positioning between human and robot. Furthermore, influencers such as Shudu (a female black influencer owned and controlled by a white man) are instances of virtual tourism - the act of a white person acting as a race other than their own for fun and to briefly experience the life of a different race (Nakamura, 2002, Hooi & Cho, 2012). The concepts of deception and identities of human and robot are incredibly prevalent in virtual influencers, and it is important to analyze and interpret people's interactions with them given different bits of information to understand where anxieties and interest comes from.

## **Instagram & the Glance**

Instagram has continually grown since its creation in 2010 (Instagram, n.d.). The platform's unique interface allows its users to follow along with other users' photo traces across their profiles, looking for noticeable discrepancies or important moments in their lives (Fallon, 2014). Instagram encourages users to frequently post updates as well.

A successful Instagram user is able to attract other users to their profiles by activating the glance. There are two oppositional ways of ‘looking’ in communication theory - the gaze and the glance. The gaze is objectifying, and “privileges the act of looking and positions the looked at as the other,” while the glance is the opposite, in the sense that it “does not fixate on one specific image, object, or subject, but rather represents a quick, fleeting, and indiscriminate type of seeing” (Zulli, 2018). In other words, the glance is informative and the gaze is objectifying (Zulli, 2018). Although it is generally negative to elicit the gaze (specifically in the context of a film context, such as the male gaze), all Instagram users try to encourage other users to tap on their profiles by eliciting the glance.

Instagram is built with the attention economy in mind due to its incorporation of the glance. Essentially, this means that successful users of the platform are able to attract followers and likes through content which keeps the glance activated (Zulli, 2018). Instagram supports this because of its basic infrastructure: it is built to host a never-ending stream of content, complete with searchable and explorable pages through hashtags (Zulli, 2018). The only way to stop glancing on Instagram is to simply exit the app. Because of this reward system, social capital (likes, profile clicks, follows) is created, which then leads to economic capital (brand deals, sponsorships, paid partnerships - creating the modern influencer) (Zulli, 2018).

## **Research Questions and Hypothesis**

Virtual influencers take up a unique space on Instagram and social media in general. Although there have been studies on syntheticians and avatars, there have not been any on these unique characters which exist in a space between the two examples. Furthermore, due to the very nature of the glance and its relationship with Instagram, it is evident that there may be a number

of factors that draw users to look at a virtual influencer's profile. The following research questions have been produced to attempt to find out more about the implications of virtual influencers and the glance on Instagram:

**RQ 1:** What is the optimal time for 'the glance' to draw a user's interest into a virtual influencer's Instagram account?

**RQ 2:** How does the uncanny valley engage 'the glance' to attract Instagram users to the profiles of virtual influencers?

This specific research question has also led me to make my own hypothesis referencing the optimal time for 'glancing' at a virtual influencer:

**H1:** The longer a user looks at a photo of a virtual influencer, the more likely they are to realize that the photo is of a fake human

Finally, my last set of research questions pertains to users' perception and opinions of virtual influencers on Instagram:

**RQ 3A:** In what ways does a virtual influencer differ from a 'regular' influencer, in the eyes of a consumer?

**RQ 3B:** Are these differences positively, negatively, or neutrally balanced?

## Methods

This set of research questions, along with my hypothesis, has led me to create two studies - one quantitative and one qualitative. Both of these studies would utilize participants ages 18-34, as they are the primary users of the Instagram platform (Statista, 2019). If possible, this study would try to get an even number of male and female participants. It is necessary that none of

these participants know who or what virtual influencers are, as any sort of recognition would add an extra, untested variable to the study.

Before the study, each participant would be given a brief questionnaire asking about their preferences towards animated movies and TV shows, video games, Instagram, and influencers. Gathering participants' opinions on animated characters in film and video games would allow the research team to see what preconceived notions they had on characters near or in the uncanny valley. By asking the participants about Instagram use, the research team would be able to record whether or not the user is used to interpreting content in a swiping action, and if they are keen to following influencers or not. All of these pre-study questions are important for the results because they may be used to account for differences in the results.

### **Study One: Quantitative**

The first, quantitative study will primarily look at the glance and the potential for uncanny CG human recognition. Each participant would be asked to look at a photoset on a screen. This photoset would remain constant in the study. The photoset would include a full range of figures present on the graph of perceived familiarity/affinity and human likeness (for reference, figure 4). To accomplish this, there would be approximately 30 photos of CG characters and real people, unrecognizable to the audience. Thee characters must be unrecognizable because recognizability would again, add another unwanted variable to this study. The characters in this photoset would range from humanlike without attempted realism (such as, but not including, characters from *UP*) all the way to actual humans. Photorealistic CG influencers, such as Shudu would be added to this mix of characters as well. However, Miquela would not be included in this mix, as she is the primary subject of the next study

The two variables present in this study would be time elapsed and movement of the photo. Time elapsed means the total length of time the photo of the character or person was present on the screen. There would be three different possibilities for time elapsed: 0.3 seconds, 0.6 seconds, and 1 second. Movement would be the other variable. There would be two possibilities for movement: either a flash on and off the screen, or a swipe-like action up the screen (to emulate someone quickly scrolling through Instagram). The study participant would get one of the possibilities for time elapsed, and another for movement (for example, 0.3 seconds with a flash, 1 second with a swipe, etc).

After each photo is on the screen for the elapsed time, there would be a short pause on a black screen where the participant would be asked one question: *was the subject real or fake?* The participant would only need to answer the question by saying yes or no, so therefore, they would be required to state their response in 5 seconds or less. After their response, the next photo would appear on the screen. The time elapsed, moment, and time for answering would all be kept the same, in order to minimize external variables.

Following these 30 photos, the participants would be asked a number of post interview questions. These questions would pertain to how and why they made their choices (*How did you know whether the photo was real or fake? What clues did you look out for? Did any of the photos fool you? Were any of the decisions hard?*), feelings towards the photos (*Which photo made you the most comfortable? Which made you the least comfortable? Can you explain why you reacted in a certain way? Have you ever been made so uncomfortable by a CG character that you had to turn off or leave wherever medium it was playing on?*). The final question they would be asked is: *which photo stood out most to you and why?* The purpose of these questions are to add context

to the quantitative results of the study - they will allow the research team to look for any changes over the times and movement of the images, and determine if there is a correlation between the two.

### **Study Two: Qualitative**

Study two will solely focus on qualitative, semi-structured interviews. Each participant in this study will be given a choice between four photos to choose from, and will be asked to select whose profile they would be most likely to click on and follow. The participants will be told that these photos are from each subject's Instagram account. Half of the participants in this study would be told that one of the women is CG and the other real, while the other half would be under the assumption that both women are real.

There will be four variations of photos the participant can choose from. Two of the photos the participant can chose from will have the figure in front of a black background, while the other two will have the figure in an urban environment. Each background will have the choice of two people: Miquela or a human lookalike (figure 5). Each person would have the same pose, makeup, clothing, hairstyle, and more. Therefore, the only variable between the two

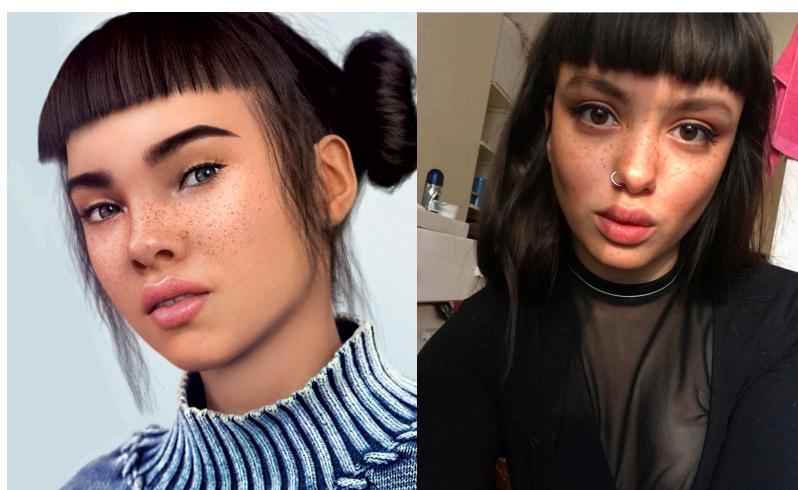


Figure 5. Miquela (@lilmiquela) and the human lookalike (@darth\_bador)

women would be Miquela's photorealistic CG rendering versus the lookalike's actual human photograph, and the only difference between the photographs to chose from would be the inclusion of a background or not.

Each participant would have the chance to look at the photos for as long as they wanted, but their time would be recorded. The only restriction is that they would only be able to see one photo at a time, in order to prevent side by side comparison. Once the participants selected a photo, they would be asked a set of initial questions about their choice. These questions would focus on their actual selection of the photo (*What drew you to this photo? What messages/features are exhibited by this person/photo? What kind of content do you expect them to post?*), why they did not choose the other photos (*Why didn't you choose the other photos? What deterred you from the other background? What deterred you from the other model? What messages do the other photos lack that the one you picked contains?*). The research team would also ask more comparative questions about the models themselves (*Why is one different than the other? Which has a better message overall? Why? What is their focus? Their brand?*). At the end of this interview, the group that was told that one of the models was fake would be asked to guess (from memory) which one is real.

After this, the research team would reveal that Miquela is CG. They would then ask one last set of questions about this revelation (*Could you tell? Does this make you more or less interested in her? Do you want to look more at her profile? Why? How does this make you feel? Did you know that there are many more like her on Instagram?*). Afterwards, the participant would have the option to look at both of the models' actual profiles and make comments about their feelings, which would be recorded.

## **Results/Analysis (preview)**

The quantitative data in study one would be recorded and analyzed. ANOVAs would be performed for each movement's (flash or swipe) times (0.3, 0.6, 1), looking for the most

significant time of each movement for yes, and then again for no. There would be four tests in total: swipe/yes, swipe/no, flash/yes, flash/no. A t-test would also be performed to compare the specific time-movement pairings (for example, 1 sec flash versus 1 sec swipe), as well as the most statistically significant time in the ANOVA tests (for example, swipe/yes versus flash/yes). This data would answer RQ 1, as well as tell the research team if H1 is correct. The post study questions will also be coded and analyzed, and tested to see if certain responses correlated with a certain number of correct guesses. These responses would partially serve as backing for RQ 3A and 3B.

The responses of study two would be coded and analyzed as well. The research team would specifically look for keywords pertaining to feelings about virtual influencers/deception, differences between real humans and fake humans, and why users were attracted/pushed away from the CG character. These coded responses would be compared to the participants' responses to realness and the post study questions from study one to look for patterns behind recognition and feelings (for example, did someone who was able to identify many of CG characters correctly have a specific reaction towards CG characters?). For this test of correlation, certain instances of the first test may need to be ignored in order to preserve the data (for example, if the users who had a 0.3 swipe test got all of the answers wrong, their responses would not be added to this test). By interpreting, searching for significance, and correlating all of these data elements, the research team should be able to answer all of their research questions and prove or disprove their hypothesis.

## Limitations

There are a few limitations to this study. First, by using preexisting virtual influencers, it is possible that participant may have seen them once before but not realized, potentially subconsciously remembering that they had seen the influencer once before and having a specific liking or aversion to them during the study. To solve this, the research team could create their own photorealistic avatars for the study, but it may be difficult to create one to the caliber of Miquela or Shudu. Second, this study does not account for specific male, female, or nonbinary differences when choosing one profile or the other. However, due to the current growth of virtual influencers, future studies could account for differences in gender, sexual orientation, race, age, and more. Finally, this study only focuses on photos of virtual influencers. Although videos are more rich and immersive, they also make it easier to tell if someone is real or animated due to specific triggers in their face movements. As virtual influencers such as Lil Miquela are becoming popular in more fields that include video, other studies may want to look at differences between photos and videos of these micro-celebrities. Although this study is specifically focused on exploring the glance, the uncanny valley, and virtual influencers, future studies could easily build off of the results found here.

## Conclusion

In today's attention economy, influencer marketing is booming. As long as there is an audience and money in this field, people will keep flocking towards it and innovating the next steps. Today's latest innovation is virtual influencers, such as Lil Miquela and Shudu. Although there is some research on their predecessors, syntheticians and avatars, virtual influencers are a whole new breed of CG characters ready to take over the internet. The purpose of this study was

to explore how they interact with and change Instagram through manipulation of the glance, the uncanny valley, and more. By studying these influencers now, communication scholars will have the ability to better understand what implications they may have in the future - positive or negative - and suggest changes or restrictions to how they must interact online.

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