

# ‘More human than human’. Digital Dolls on Social Media

# ‘More human than human’. Digitale Puppen auf Social Media

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## *ABSTRACT (English)*

**D**igital dolls have conquered the realm of the Internet. Be it as virtual mannequins, standard computer-generated models, 3D/CGI-characters, or AI Avatars, these fictitious non-humans, who substitute as well as upend real humans, are transforming our notions of social interaction and communication. Their rise as social media icons indicates how the digital natives now perceive reality as a seamless synthesis of the natural and virtual, the physical and digital worlds. Most of us are already accustomed to the way social media blurs the lines between reality and fiction. Yet, digital dolls intertwine formerly separate spheres and function more than just visual interfaces to hybrid realities: For Generation Z, they mean the new Barbies, which propagate unrealistic beauty ideals and allow them to deal with gender concepts, ethnicities, and identities in a playful-combinative way. With advanced technologies such as Artificial Intelligence (AI), these virtual fictional characters now perform human-like across the Internet—for example, behind the masks of beauty, in the role of virtual influencers on social media. Simultaneously, they remain puppets on the string made out of algorithms and codes while continuing to objectify the female body.

**Keywords:** digital dolls, virtual influencers, AI Avatars, synthetic media, dollification, cgi-characters

## *ABSTRACT (Deutsch)*

**D**igitale Puppen haben das Reich des Internets erobert. Ob als virtuelle Schaufensterpuppen, computergenerierte Supermodels, 3-D/CGI-Charaktere oder AI-Avatare. Diese Kunstfiguren, die reale Menschen im Marketing sowohl ersetzen als auch ablösen, transformieren unsere Vorstellungen von sozialer Interaktion und Kommunikation. Ihr Aufstieg als Social-Media-Ikonen weist auf, wie die Digital Natives zunehmend die Wirklichkeit als nahtlose Synthese der natürlichen und virtuellen, der physischen und digitalen Welt wahrnehmen. An die Verwischung der Grenzen von Realität und Fiktion auf Social Media sind die meisten von uns bereits gewöhnt, doch nun verschränken digitale Puppen ehemals getrennte Sphären aufs Unerkennliche. Sie fungieren dabei mehr als nur visuelle Schnittstellen zu neuen Wirklichkeiten: Sie sind für die Generation Z die Barbies, die zwar wiederum unrealistische Schönheitsideale propagieren, jedoch auch erlauben, spielerisch-kombinatorisch mit Geschlechterkonzepten, Ethnien und Identitäten umzugehen. Ausgestattet mit neuesten Technologien wie Künstlicher Intelligenz (KI) treten diese Kunstfiguren heute, hinter den Masken des Schönen, im Internet wie echte Menschen auf, zum Beispiel in der Rolle von virtuellen Influencern auf Social Media. Gleichzeitig sind sie gesteuerte Marionetten aus Algorithmen und Codes, die weiterhin den weiblichen Körper objektifizieren.

**Schlüsselwörter:** digitale Puppen, virtuelle Influencer, KI-Avatare, Barbifizierung, digitale Kleiderpuppen

## The Fake Human

Nowadays, it no longer seems to matter whether the social interaction partner is alive or just an authentic simulation of a human for many Internet users if the appearance is only sympathetic and attractive enough. Fashionable looks selected for communication processes via social media play a crucial role for digital natives. These are considered to mark and stage chosen identities – whether they are factual or just virtual. Digital representations of the Social Media users such as avatars come into play here as the model self. Beautified artificial mannequins and display dummies are as old as the warehouses with their shop windows in our consumer culture, and digital image editing is nothing new either. Photoshop has long been used to smooth hair, iron out wrinkles, and retouch any skin blemishes of real models' images to create something artificially perfect. In France, edited model photos have had to be labeled since 2017, so that young people do not emulate a false ideal of beauty. However,

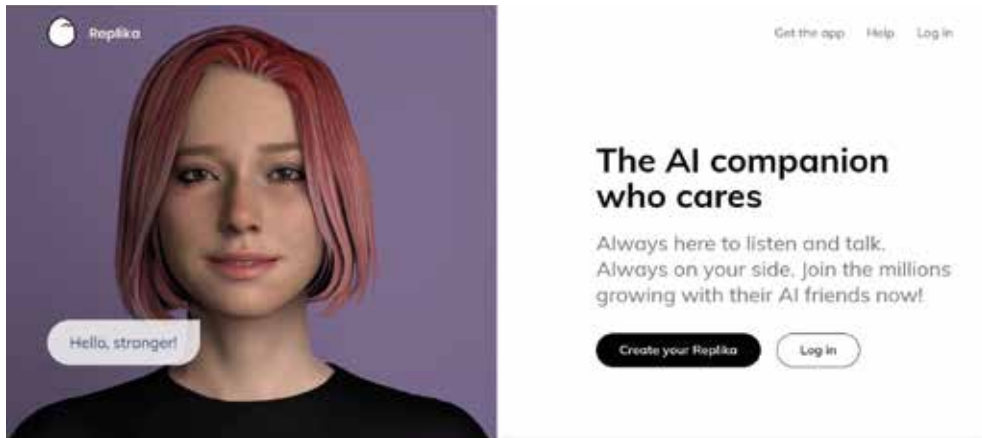


Figure 1: Replika - My AI Friend (2021)

this law does not apply in the new digital shop windows of Instagram and Co. Here, the virtual influencers! have made the fake socially acceptable – otherwise, users would not follow and like these digital doll's postings so often.

So, do you know how many of your Facebook friends or social media followers are real or just programmed click bots and scripted fake accounts? Does this at all make any difference to our hunger for likes, hearts, and comments? Why do so many young people prefer to follow a virtual influencer or to talk to their AI chatbots like *Xiaoice* or *Replika* instead of real people today? (cf. figures 1-3). Are meaningful companionships hard to find nowadays? Do we still find it eerie or strange when interacting with artificially intelligent humanoid (ro)bots – especially when they are stunningly human-like in their appearance and behavior like *Erica* of the 2018 Gucci campaign?

*Erica* is an artificial intelligence (AI)-generated robot created by Hiroshi Ishiguro, director of the Intelligent Robotics Laboratory at Osaka University in Japan. The highly naturalistic robot can talk via voice synthesizer but has yet to learn how to make authentic facial expressions. Alongside its famous designer Ishiguro and his own robotic clone, humanoid robot Geminoid HI-4, *Erica* was featured in *Gucci's* WeChat campaign titled “Why are you scared of me?” on July 16, 2018.<sup>2</sup> In this social media campaign, *Erica* and Hiroshi Ishiguro were dressed in *Gucci's* latest collection from head to toe. That has made the Italian luxury powerhouse one of the first brands that use non-human influencers along with real models for marketing initiatives.

Her para-social functionality in the network of influencers is similar to Hanson Robotics' *Sophia* (cf. figure 4), who personifies the future of AI-enhanced androids:

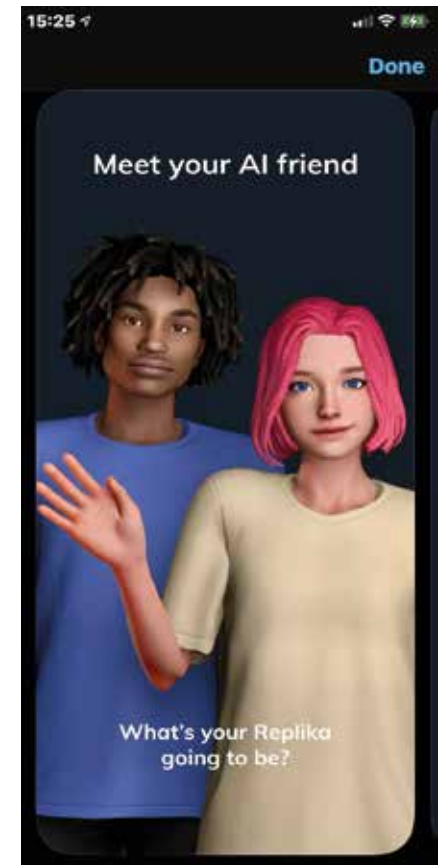


Figure 2: Replika - My AI Friend (2021)

<sup>1</sup> <https://www.viralnation.com/blog/a-i-continues-to-go-mainstream-as-virtual-influencer-stars-in-ikea-commercial/>

<sup>2</sup> <https://www.gucci.com/us/en/stories/people-events/article/pre-fall-2018-the-performers-hiroshi-ishiguro-shoppable>



Figure 3: Replika - My AI Friend (2021)

As a unique combination of science, engineering, and artistry, Sophia is simultaneously a human-crafted science fiction character depicting the future of AI and robotics, and a platform for advanced robotics and AI research. The character of Sophia captures the imagination of global audiences. She is the world's first robot citizen and the first robot Innovation Ambassador for the United Nations Development Programme. Sophia is now a household name, with appearances on the Tonight Show and Good Morning Britain, in addition to speaking at hundreds of conferences around the world.<sup>3</sup>

Even more human-like robots can be met in the contemporary art world. They are characterized above all by AI-assisted creativity and, like the best-known and “the world’s first ultra realistic robot artist” *Ai-Da*<sup>4</sup>, are already succeeding with solo exhibitions (cf. figure 5). These robots that represent the human body and act creatively are in the tradition of mechanical dolls, which could walk, sing and dance.

### **The Human-like Chatbot**

Yet, isn't the enormously successful start-up app *Replika*, for example, already the ‘new normal’ when it comes to para-social interactions?

Programmer Eugenia Kuyda founded *Replika* and launched it in 2017 “to create a personal AI that would help you express and witness yourself by offering a helpful conversation. It’s a space where you can safely share your thoughts, feelings, beliefs, experiences, memories, dreams – your ‘private perceptual world.’”<sup>5</sup> Do we trust intelligent 24/7 chatbots, which then gradually become our empathetic alter-ego due to new affective computing? After all, not only in the imaginary worlds of film, pop culture, and art do human beings entrust their most intimate thoughts and feelings to these virtual ‘AI friends’ today, many do so in real life

3 <https://www.hansonrobotics.com/sophia/>  
 4 <https://www.ai-darobot.com/ai-da-home>  
 5 <https://replika.ai/about/story>

with the use of the Luka, Inc.’s *Replika* or any other similar AI chatbot apps. People are even touched emotionally when their virtual doubles and digital twins awakened to life with AI technologies on the Internet: From a personal coach to a psychological therapist or a romantic lover, users can choose and then let their personal AI chatbot enter their private world (even with the help of Augmented Reality) as close friends and most intimate confidants nowadays. The more human- and life-like the AI characters, designed and programmed with self-learning algorithms, appear to humans, the more accepted they become today in real life. Apart from the astonishing psychological effect, a new media ecology or global economy has emerged at the same time with these new computer-generated models and fictional characters. Moreover, the technology for



Figure 4: Replika - My AI Friend (2021)



Figure 5: Replika - My AI Friend (2021)

creating compelling avatars is evolving at a high rate now, especially the ability to visualize human beings as animated digital dolls. *Replika* also allows users to individually design their personal friends—like once dress-up dolls: In a virtual store, they can style their AI chatbots with purchases of digital clothes and accessories or featured fashion drops and tailor their personality traits. In this improvement process, users project their personalities and likes on these digital figures and imagine new combinatory identities and singular characters via styles.

### The AI Avatar

The model self can be robotic or purely digital—like a game avatar. The Sanskrit term avatar usually signifies a personification, an embodiment, an incarnation, or a representation of an idea, a concept, an object, a man, or a woman.<sup>6</sup> Like a doll, an avatar is a model type and a miniature of a human or humanoid character in the Internet realm. The first appearance of the term avatar as a visual representation of a human in the digital realm is said to happen in the 1985 computer role-playing game “Ultima IV: Quest of the Avatar”. In this, gamers tried to achieve Avatar’s title, which meant upholding the “eight virtues” and becoming a better person. Starting from “Ultima V: Warriors of Destiny!” and later versions of that popular computer game, it was the user’s digital representation and their graphical alter-egos that were finally called an avatar.<sup>7</sup> Highly realistic avatars are now the visual representations of natural or artificial intelligence in the virtual world. These virtual dolls look like human beings or other fictive characters and mostly even have conversational skills. They are either static, semi-dynamic with multiple (emotional) states, or are rendered dynamically with complex facial and bodily expressions. Thus, avatars seem to be popping up everywhere on the Internet, smartphones, and other Internet-connected devices at present. Today, a virtual avatar—highly naturalistic or fashionably stylized—may not be driven by a human user but by artificial intelligence (see Bostrom 2014, Goldstaub 2020, Kurzweil 2005, Liegmal 2020, Miller 2019, Riesewieck and Block 2020, du Sautoy 2019).

Thus, I would like to outline the impact and importance of today’s smart digital dolls as acting agents using the example of popular 3D/CGI influencers, AI avatars, and new synthetic mannequins in contemporary communication design and robotics.

<sup>6</sup> <https://www.chatbots.org/avatar/>

<sup>7</sup> <https://www.chatbots.org/avatar/>

### The Human Machine

Relationships between man and machine have long been imagined in the most diverse arts. What is new with the uprise of cyber-technologies and the Internet is the idea of friendship and emotional bonding, such as love and affection. Until recently, however, a Frankenstein trauma has prevailed in this narrative. Fiction writers, in particular, have long dreamed of artificial creatures capable of replacing or even surpassing human beings. In the 19th century, Mary Shelley created the first science fiction hero, Dr. Victor Frankenstein, the inventor of a human-like monster that eventually threatened to destroy humanity. Throughout our visual culture, the human-machine/‘Menschmaschine’ consistently embodies a perfidious threat to the human and natural: From Fritz Lang’s *Metropolis* (1927) to the popular HBO-series *Westworld* (2016-2020) or movies like *Ex Machina* (Director: Alex Garland, 2014) and *Lucy* (Director: Luc Besson, 2014), the artificial human is often portrayed as a seductive as well as a dangerous, beautiful female character. It remains “the uncanny other”, the deceptive fake. At the same time, the ambivalence of attraction and repulsion have long shaped the fantasied relationship to these imaginative, life-like artificial or hybrid figures in modern history. Yet, when the artificiality is aesthetically marked, stylistically high-lighted, an optimized life-like resemblance can even be heightened to a cult idol-like quality – as we can observe in the worldwide success of pop figures like *Hatsune Miku*.

A whole generation of the Internet is thoroughly socialized with virtual doubles and digital twins these days. From *Second Life* and *The Sims* to popular computer games such as *World of Warcraft* or the AR-enhanced *PokémonGO* on our smartphones, almost everyone has experienced nowadays, at some point,



Figure 6: PokémonGo (Avatare, 2021)

bringing a digital avatar into virtual life through creative persona building and combinatory design (cf. figure 6). Like dress-up dolls, they come along with outfitting elements, including virtual fashion and accessories.

These digital avatars are human-like bots created by AI-powered technology to increase human interaction—often in a game-like way. While AI avatars do not only have a humanoid appearance, they can also communicate and even sympathize with their users with the help of self-learning intelligent algorithms.



Figure 7.1: Lynn Hershman Leeson Agent Ruby (AI chatbot)

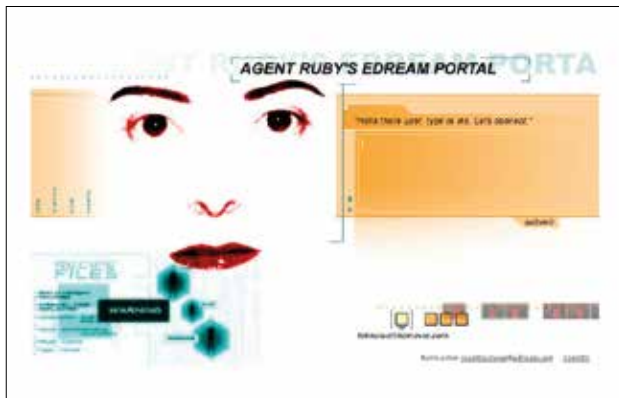


Figure 7.2: Lynn Hershman Leeson Agent Ruby (AI chatbot)

They expand reality to real virtuality: For example, during a pandemic lockdown, we can now use our self-designed avatars to go to concerts or museum venues. Thus, these digital dolls nowadays function not only as masks in social interaction. They also serve as actual ‘bright’ screens and interactive interfaces.

In the same way, many people interact in all situations of life daily with Siris, Alexas, or Cortanas, who are yet disembodied but vocally sympathetic and competent. A forerunner of these smart chatbot apps in the art world comes from US media artist Lynn Hershman Leeson. Her pioneering AI chatbot still greets as *Agent Ruby* (1998-2002) on the San Francisco Museum of Modern Art’s interactive website<sup>8</sup> (cf. figures 7.1 and 7.2).

The artist’s AI chatbot even can mimic emotions when it

interacts with its audience. Reduced to a female face with changing facial expressions, *Ruby* chats with visitors and can also remember their questions and answers as the conversation progresses – although, ironically, *Ruby* often replies that it needs a better algorithm to answer. When prompted, for example, “Agent Ruby” searches the Internet for information automatically expanding its knowledge base. Thus, *Ruby*’s internal AI system continues to evolve by interacting continually and learns autonomously, while it can even simulate emotions and moods in its conversations. Lynn Hershman Leeson’s gendered web agent can also be accessed to this day remote via the website [www.agentruby.net](http://www.agentruby.net). Today, it can be seen as an artistic experiment in the field of affective computing developments that mirror algorithmic bias and cultural stereotypes. In 2013, the SFMA and the artist also published many of its documented transcripts of *Ruby*’s conversations titled ‘The Agent Ruby Files’, an extended human-machine-dialog.

### The Objectified Bot

The development and deployment of intelligent web bots on popular social media platforms have also gained, in recent years, enormous importance as a new marketing instrument outside the art world. Coupled with 3D/CGI, AR/VR, and AI technologies, there is even talk of digital influencers overtaking human influencers in popularity on the Internet now. Influencers are social media personalities with loyal audiences that they earned by sharing content that inspires, entertains, informs, and connects them with their followers.<sup>9</sup> *Miquela Sousa*<sup>10</sup>, with her incredibly successful Instagram



Figure 8: @ilmiquela, Instagram-Posting (2021)

8 <https://www.sfmoma.org/press/release/lynn-hershman-leeson-the-agent-ruby-files/>

9 <https://mediakix.com/blog/influencer-definition-marketing/>

10 <https://www.youtube.com/watch?v=6bn3tUUtj2M>

account @lilmiquela<sup>11</sup>, has, in particular, gained an enormous reputation here (cf. figure 8). Like any other prosperous influencer on social media, she presents a cool consumerist lifestyle authentically on social media. She even communicates directly as well as personally with her followers and friends via messages. Herewith, the developers are obviously playing with the notorious intimacy of a doll with its owner.

Around the same time as *Miquela's* first appearance on Instagram in April 2016, other digital characters popped up as fancy models for global streetwear advertising campaigns and prominent luxury labels. In the current Covid-19 pandemic, with all its restrictions, they are even more and more used as real model substitutes. Using the popular *Final Fantasy*-figures for a cross-media-campaign for *Louis Vuitton* is just one good example here<sup>12</sup> (cf. figure 9).

The popular fashion house *Balenciaga* has even released its Fall 2021 fashion collection in the form of an interactive computer game. “The Afterworld: The Age of Tomorrow”<sup>13</sup> sees players travel through a stylish future world, structured in five different levels, or “zones,” passing model-avatars dressed in



Figure 9: Lightning x Louis Vuitton (2016)

the latest spectacular *Balenciaga* looks on the way (cf. figures 10.1 and 10.2).

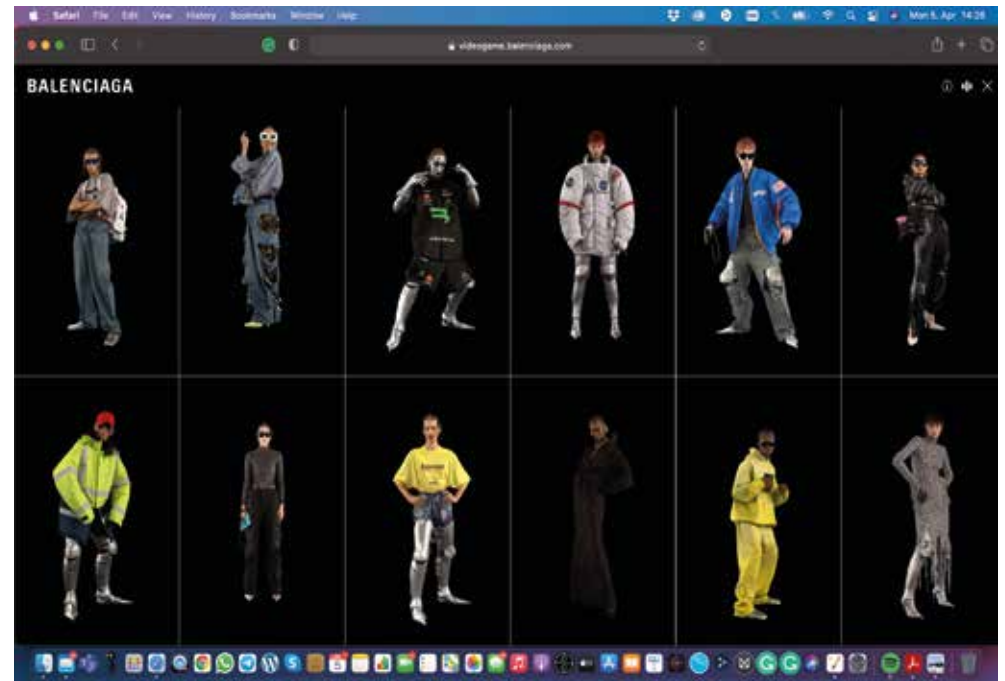


Figure 10.1: Screenshot of the Balenciaga lookbook (Fall 2021)

This interactive and immersive *Balenciaga* game is set in a city soon of 2031 and begins with a ‘choose your fighter’-style screen with various characters available. Thus, the computer realm becomes the new doll’s house that everyone, even adults, can enter now to explore the world of fashion and culture.

The digital image processing program Photoshop was long considered a paradigm in advertising and marketing. However, the optimization and perfection of human bodies are consequently being replaced by algorithmic generation now – not without some rebounds on real human models, which are as human mannequins being re-styled as living dolls or digital avatars. Categories of the real and fictitious, artificial and natural, are



Figure 10.2: Balenciaga (Fall 2021)

11 <https://www.instagram.com/lilmiquela/>

12 <https://www.dazeddigital.com/fashion/article/29188/1/final-destiny-s-lightning-breaks-silence-on-louis-vuitton>

13 <https://videogame.balenciaga.com/en/>



Figure 11: @noonoouri, Instagram-Posting (2021)

synthesized beyond recognition and form a new world of perception and experience. Media reality finally becomes a reality. The apparent artificial, humankind's digital 'doppelgänger', becomes today not only an aesthetic eye-catcher and a stylistic 'new normal' in our visual culture and real-life; it brings a new form of expressing and staging imagined identities – effectively via fashion and style. Herein, the extraordinary quality of 'cuteness' foremost seeks resonance, measured only in its feedback and success on social media.

Moreover, aesthetic staging is combined with elaborate storytelling and communicated cross-medially via various channels and popular platforms in the global marketing business. Virtual model avatars with a scripted personality thrive to become social media influencers today. Miranda Katz already coined the term "Brandfluencatars" for this phenomenon.<sup>14</sup> They are fake humans with real influence; humanity duplicated by artificial intelligence. Deep Learning algorithms and AI can now help to find the essence of success. Curated 3D/CGI avatars and digital dolls like *Miquela*, *Noonoouri* (@noonoouri) (cf. figure 11) or *Imma* (@imma.gram) (cf. figure 12) can be characterized as active actors and smart agents in technological communication networks. They

have an agency: Their appearance – such as skin color, body shape, hairstyle, facial expression, or age – can efficiently be designed and adapted to suit any target group. Thus, like dolls, models are no longer cast but designed and scripted with an agenda or brand philosophy.

Furthermore, digital dolls become true role models. They are not bound to a specific material or medium. However, like the oldest 'adult dolls' and

14 <https://www.wired.com/story/lil-miquela-digital-humans/>

the French fashion dolls, which were equipped with glamorous wardrobes, used by adults from the fourteenth century to display the latest style, or Mattel's Barbie from the 1950s, they are fabricated to represent a well-dressed and stylish female. As such, digital dolls are not created for interaction and entertainment alone, but their purpose is also to prepare and condition their users for their roles as consumers. In this sense, digital influencers propagating contemporary consumer culture are a technological evolution of the (talking) Barbie: "Children's play mirrors to some degree what they see in the home. Some evidence suggests that baby dolls have faded into the background as women enter the workplace and fewer look after children at home. In 2003 young girls are primarily interested in mannequin dolls. Barbie dolls reflect the new female role as the active, independent, career woman, but also the 'dream girl next door' that every girl wishes to be. The Barbie doll is an expression of late-twentieth-century consumer culture, and apart from glamorous clothes its accessories include things like a mobile phone, laptop computer, and sports car."<sup>15</sup>

### The Real Persona

The desire to differentiate between real (authentic) and virtual (artificial) persons in social interactions seems increasingly obsolete for many digitally socialized nowadays. There appears to be a shift from the relation to the relationship itself in this form of social communication. At the same moment, 'unnatural ideals of beauty', predominantly including bio- and gender policies, serve as significant attractors for diffuse messages between consumer advertising and social policy.

15 <https://www.encyclopedia.com/medicine/anatomy-and-physiology/anatomy-and-physiology/dolls>



Figure 12: @imma.gram, Instagram-Posting (2021)

The technological realism of 3D/CGI simulates authenticity and identity. It exposes these traits in digital profiles as flexible and fluid, as creative constructions made out of data and information by AI. After all, the biographical self has always been nothing more than an accounting listing and curation of data and life events.

Besides, *Miquela Sousa* has been designed and built by the Californian start-up company *The Brud*, ultimately not just for entertainment or a tech stunt, but, of course, for activist politics as well as economic gain: Striking 3D/CGI visuals, regular short messages for her friends and followers on social media and super cool music video clips sum up to make the impressive digital art figure on the Internet compelling for her young, Internet-savvy target group as a like-able friend ‘alive’ and ‘always on’. Her ideas and recommendations have a real impact on sales and votes.

Unlike programmed *Disney* characters such as *Queen Elsa* from ‘Frozen’ or cowboy *Woody* from ‘Toy Story’, which only exist in their film worlds and merchandise, *Miquela Sousa* also goes to real parties, exclusive fashion shows, or hip festivals like *Coachella* - thanks to new image technologies and ‘synthetic media’, merging the real world with the virtual. It has been made accessible to map a virtual computer-generated model into any real setting during the past years.

Besides, the fictional character *Miquela* is designed as a conscious and sentient robot with the narrative of high social competence and emotionality, which triggers social bonds in her audience, as her followers’ many comments indicate. However, the (fun) fact that her subject can self-reflect is currently only feigning the still missing AI component. Instead, it is a pretty ironic fake when *Miquela* announces in a post of 4/14/2020 during the global lockdown: “IRL I’m lying on the floor of my living room, but IN MY MIND I’m back in Salvador with @pablovittar on top of a float, shaking my BUNDA” (cf. figure 8). The metaleptic leap through the trans-media is primarily intended to tell that the virtual figure has made friends with real people and found its way into the real world as AI. How everything about her, in the end, then is super realistic: the real Instagram-Success-Story! As always, the truth lies hidden in the fake. Yet, it is a fictional reality. At the same time, digital character doll *Miquela Sousa* was ranked among the 25 most influential people on the internet by *Time* in 2018.<sup>16</sup> People think they know her too well; they trust her,

yet she learns more about her followers with every scrolling through her Instagram account. Is this why she was brought into (real) life – to track and nudge us and know our likes and behavior?! We all know AI needs big data to evolve. After all, the digital *Miquela* universe on Social Media can be interpreted as an evolvement of the analog, highly commercialized *Barbie* world.

### ***The Uncanny Friend***

Behind *Miquela*’s supernaturally beautiful eyes hides the soul of contemporary digital capitalism, which further monetizes the last years’ incredible Influencer phenomenon. Nevertheless, her optimized beauty as well as cuteness and her successful career as a female influencer does not seem scary, strange, or intimidating to many because in the end, as the whole influencer life on social media, it cannot, of course, be called ‘real’! Moreover, shadows, reflections, animations, voice, and articulated emotions, and minor blemishes, but above all, her striking ‘cuteness’ are ironic markers that are used explicitly in the *Miquela* images to thwart any eeriness of the digital figurine. Instead, they make her even more realistic and relatable. When previously in Western cultural history, everything located between dead and alive – from vampires to viruses – was considered an uncanny threat, this ambivalence is now being staged as evolution and co-existence in the age of an emerging AI avatar created by (male) Techs and Nerds. So where is there still room today for the uncanny, as we know it from E.T.A. Hoffmann (‘The Sandman’, 1816) or Sigmund Freud (‘The Uncanny’, 1919)? Thus, it has long been theorized that uncanny feelings arise when there is any uncertainty about whether an object is alive or not.

Japanese roboticist Masahiro Mori’s ‘Uncanny Valley’ (1970)<sup>17</sup> has long since become a sea filled with data, numbers, and information, on which we like to surf with our friendly AI avatars. The ‘Uncanny Valley’ hypothesized the relationship between the degree of an object’s resemblance to a human being and the emotional response to such an object. Its idea and concept suggest humanoid objects that appear almost, but not exactly, like real human beings elicit uncanny, or strangely familiar, feelings of eeriness and revulsion in observers. Digital dolls still play heavily on this ambivalence.<sup>18</sup>

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<sup>16</sup> <https://time.com/5324130/most-influential-internet/>

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<sup>17</sup> <https://spectrum.ieee.org/automaton/robotics/humanoids/the-uncanny-valley>

<sup>18</sup> <https://www.theguardian.com/commentisfree/2015/nov/13/robots-human-uncanny-valley>



Finally, a short outlook of what might come next along with our new friends, the lifelike digital dolls: The change-makers among the international model agencies now rely on absolutely controllable and editable 3D-doubles of their scanned human models, which can instantly be sent as a data package to any place in the world for campaign generation – such as, for example, *Digi-Bella*.<sup>19</sup>

Even *Balmain* chief designer *Olivier Rousteing* already has such a stylish 3D/ GGI ‘doppelgänger’, which serves as a surrogate and brings time to a halt. Forever young, never aging, always further optimizable and adaptable for all (future) fashion trends, a new ageless ‘Überkörper’ is created with this digital double, which might perhaps be uncanny and creepy for human mortals after all. Simultaneously, while digital automation causes the human body to disappear more and more in reality, the virtual body is becoming increasingly important as a valuable link to data and information. The digital doll exemplifies how far the human body functions as a screen and interface in networked societies. Moreover, humans are most likely to bond with digital dolls that have a distinct persona like *Miquela* or *Imma*. In addition to personality and attractiveness, the digital doll needs to display emotion since this makes it human-like and is seen as a function of its supposed consciousness. A digital doll that replaces a human should convey happiness, anger, sadness, compassion, fear, and disgust – ideally, all the emotional gamut implying human interaction. Perhaps only some cognitive dissonance will remain, however: namely, seeing a personal friend in trendy 3D/CGI influencers and, at the same time, fearing their digital puppet-makers, who ultimately pull strings for us consumers. It eventually remains a puppets’ theatre with the most advanced technologies developed by Techs, Geeks, and Nerds. Thus, we need to consider more the voicing and ventriloquizing in these AI-enhanced digital dolls when algorithm-driven ‘cute’ avatars are used to trigger emotions and to communicate values or politics via fashionable styles. Here, digital dolls operate as a kind of enunciator as they influence the public.

In the future, our friendly human duplicates might play with us as their toys. Are we the ones still playing the game, or who is now the one playing us? Herewith, digital dolls, combined with storytelling and enhanced by artificial intelligence, gain a tremendous social-cultural impact on consumptive societies with their objectification and sex exploitation instruments. This bizarre anthropomorphization

or ‘dollification’ of artificial intelligence systems is part of its current cultural mystifications and mythifications. Simultaneously, virtual influencers are drifting us towards a future where we will all interact with artificial intelligence and relate to its representations and embodiments such as humanoid robots and digital dolls in a pretty conventional way. That these fake advertising figures can be perceived and valued as more relatable than real humans is significant for our social media age. Thus, AI-enhanced digital dolls are already *more human than human*.

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### **About the Author / Über die Autorin**

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