

Online Communication in the Digital Age
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Lecture – 59
Exploring the Digital Persona: The World of Avatars

Good morning, dear friends and welcome to this module. Continuing upon our discussion of the metaverse in the previous module, today we shall be discussing the role of avatars in modern digital communication. As digital representations of users, avatars have become integral to online communication, offering opportunities for self-expression and interaction in virtual environments. They transcend geographical boundaries and enhance the participants' engagement.

Definition*

- Communication scholars nearly universally acknowledge that the avatar is a digital representation.
- Most definitions state or imply that the purpose of an avatar is to enable the user to experience and interact within the spaces of digitally mediated worlds.
- Although fully interactive digital embodiments provide a more immersive interaction in the digital world, even a simple screen name or static image in an online chat room can facilitate this ability to experience digital worlds and interact with others.



Source: <https://en.wikipedia.org>

*Blascovich, J., & Bailenson, J. (2011). *Infinite reality: Avatars, eternal life, new worlds, and the dawn of the virtual revolution*. New York: Harper Collins.

Communication scholars nearly universally acknowledge that the avatar is a digital representation. Most definitions state or imply that the purpose of an avatar is to enable the user to experience and interact within the spaces of digitally mediated worlds. Although fully interactive digital embodiments provide a more immersive interaction in the digital world, even a simple screen name or a static image in an online chat room can facilitate this ability to experience digital worlds and interact with others.

The concept of avatars in communication can be traced back to Hindu mythology, where avatars represent divine beings interacting in different forms to interact with humanity.

Background*

- Avatar originated in Hinduism and is adapted from the Sanskrit word for “descent.”
 - The term refers to the descent of the Hindu deities on earth as a material incarnation, which allows them to interact with humans
- The term "Avatar" was introduced into digital culture by the first-ever graphical online multi-user game, Habitat, in 1986.
- Chip Morningstar, one of the game’s creators, felt that *avatar* was an appropriate term in the sense that “we humans are like deities, or at least external souls, with respect to a virtual world that exists only inside a computer simulation”.



Habitat (1986)
Source: <https://en.wikipedia.org>

*Kievjer, R. (2023). Avatarhood and Selfhood. ACTOR & AVATAR, 38.

Avatars originated in the Hindu philosophy and the word is adapted from the Sanskrit word for descent. It refers to the descent of the Hindu deities on earth as a material incarnation which allows them to interact with human beings and solve their problems. Into the digital culture, this term was introduced by the first-ever graphical online multi-user game Habitat in 1986. Chip Morningstar, one of the game's creators, felt that avatar was an appropriate term in the sense that we humans are like deities or at least external souls with respect to a virtual world that exists only inside a computer simulation.

Gradually, we find that in both AR and VR applications avatars have gained substantial attention. The following video discusses the significance of AI avatars and their evolution within the rapidly changing landscape of digital technology.



Source: [CNBC Television](https://www.youtube.com/watch?v=Xr8B9x95BFc) Video Link: <https://www.youtube.com/watch?v=Xr8B9x95BFc>

It's like avatars that have gained traction with celebrities like Paris Hilton and Justin Bieber.

Now the company is announcing the launch of its developer kit application to enable developers to try and create augmented reality experiences. Joining us right now to talk about what this means is Genie's CEO Akash Nigam. Thanks for being here today. The metaverse was so huge for a couple of years and everybody was trying to find a way to play into it. I think Genie's really grew up in that environment.

But now it seems like everybody's chasing after AI. It's a little bit of a different environment. What has happened with avatars? What's happened with engagement, especially now that people have kind of come out from the pandemic and gone back to their lives? Yeah, you know, we've been building avatars since 2014 and we never really considered them to be an NFT or a video game character. We always consider them to be the next method of communication and specifically actually for augmented world. Right.

So I think about what an avatar is supposed to accomplish is supposed to emanate new information and solve for presence. And so in our in our minds, like I think the metaverse was probably my least favorite word throughout the entire hype because I feel like it was misconstruing the entire purpose for what an avatar is supposed to actually represent in the future of the Internet. But what have you seen just in terms of use? Because two things happened. A metaverse was big and it was a big kind of investment theme that people were looking at. And it impacted people who were staying at home

and doing things like playing video games much more frequently, spending more time online.

That happened during the pandemic. And we've seen a lot of those trends shift. What has happened with the use of avatars? So at least for genius specifically, our engagement continues to rise. I think other metaverse projects that were cut were from big companies that were utilizing avatars more as profile pictures or futile use cases. We've always been leveraging an avatar as your second identity and really targeting Gen Z specifically.

And so in our case, we've seen engagement rise. I think in other places where they've had to cut the metaverse projects, it's been because of their use case and their intention of the product. Part of the reason we first got interested in you is you were able to generate some really big interest from some important players, people like Bob Iger, who invested some of his own money in you and joined your board when he was not running Disney and the time in between when he had stepped down. You raised about \$250 million from Bob Iger, from places like Silver Lake, and that gave you a valuation of a billion dollars at the time. When was your last fund raise? Last fund raise was April, last April.

April of this past year or April 2022 or 2023? 2022, sorry. OK. And that's what gave you the valuation of a billion dollars at that point? Yep. Yep, 100 percent. Do you need cash or are you set? We're set.

Look, I think that round was quite opportunistic in the sense that we felt like we could double down on a lot of momentum that we already had. I think the way that Genies is considering its overall blue sky potential and mission is that we want to be able to deliver avatars to the masses. That's why we're really excited to be able to use some of the capital to allocate resources to invest in some of the tech that we're announcing today to the dev kit. There's three main components to the developer kit. There's one, the avatar framework, which is customizable high fidelity avatars.

Two, we have a generative gameplay AI bot that is trained to be able to help developers convert their imaginations and some of their wildest dreams into effective mini game experiences. And then finally, there's the XR compatible tech. And the XR compatible tech is really important because it ensures that all of our avatars and their experiences will load performantly in an AR world. And again, we feel like the concept of an avatar can realize its fullest potential when it can solve the presence. And that's going to happen inevitably when we're in our next era of hardware, which Apple's event is coming up here shortly.

And I feel like they're going to be a big indication of the times to come. When you talk

about total addressable market Akash, I understand that it could in theory be every human being on the planet will want an avatar. But when we talk about what the market is currently, what is it? How many people actually go to the metaverse will need an avatar there or have an avatar that may be janky and want to replace it with one of the ones that solve for presence, for instance? What is the market right now? And where do you see that going in the next year or two? Well, look, so I would say like the word avatars evolved tremendously over the years, right? So like back in 2013, if I said the word avatar, people thought I was talking about the movie avatar. Then you get to 2015 and then all of a sudden, Bemoji is able to popularize avatars as small comic strips and just like a layer over a filter. What we're trying to do is really take that idea and go from a profile picture and really usher into a virtual being, right? And so I actually do think the total addressable market is every single human on earth.

However, I do think that every single method of communication is always popularized by the center of culture. And the center of culture is always going to be youth. And so in our case, our target demographic, and as you can see here from the avatars that are being loaded and all the avatars that have been used today by the different creators and some people that have access to our beta are all Gen Z and specifically female Gen Z. And so for us, it's a really good indication that we feel like this is resonating with a culture that eventually is going to be able to proliferate this to the other age groups.

The video provides insights into the expanding role of avatars and its popularity amongst Gen Z users. In the realm of digital interaction, avatars serve as essential conduits for self-expression and communication. Let us delve into the key attributes that define and shape the digital representations in virtual environments.

Characteristics of an Avatar

- Several factors can influence an avatar's characteristics, including user preferences, societal norms, experiences within the digital environment, and the technological capabilities and limitations of the system.*
- Avatars have the potential to impact beliefs, attitudes, and behaviors in a wide array of contexts:
 - interpersonal communication
 - health communication
 - group communication
 - nonverbal communication
 - organizational communication



Source: <https://www.bizcommunity.com>

*Nowak, K. L. (2015). Examining perception and identification in avatar mediated interaction. In S.S. Sundar (Ed.), The handbook of the psychology of communication technology (pp. 89-114). Hoboken, NJ: Wiley-Blackwell.

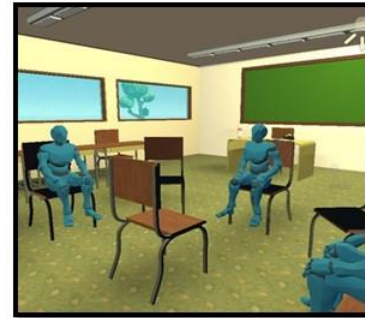


So how can we represent the characteristics of an avatar? We find that several factors can influence these characteristics, including the preference of the user, societal norms, experiences within the digital environment, and the technological capabilities as well as limitations of the system. Avatars also have the potential to impact beliefs, attitudes, and behaviors in a wide array of contexts. For example, in the field of interpersonal communication, health communication, group communication, nonverbal as well as organizational communication.

Avatars convey a wealth of information through their visual attributes. Elements such as appearance, clothing, and facial expressions significantly influence how they are perceived and received by others in digital environments. Understanding these visual cues is essential for effective communication and creating meaningful interactions in virtual spaces.

Visual Characteristics and Perception

- Online avatars, much like physical bodies offline, visually represent individuals, showcasing their adaptability in using available medium information for communication (Walther, 1992).*
- The use of avatars' visual aspects in online perception may stem from rational choices, innate visual responses, or reliance on familiarity in the digital world.
- Visual cues aid in assessing entities' social potential, shaping personae, expectations, and understanding behavior (McGloin and Nowak, 2014).**



Source: <https://www.researchgate.net>

*Walther, J. B. (1992). Interpersonal effects in computer-mediated interaction: A relational perspective. *Communication Research*, 19, 52–90.

**McGloin, R., Nowak, K.L., & Watt, J. (2014). Avatars and Expectations: Influencing Perceptions of Trustworthiness in an Online Consumer Setting. *PsychNology*. 1(1–2), 7–28.

Online avatars, much like physical bodies offline, visually represent individuals, showcasing their adaptability in using available medium information for communication. The use of their visual aspects in online perception may stem from rational choices, innate visual responses, or reliance on familiarity in the digital world. Visual cues aid in assessing entities' social potential, shaping persona, expectations, and understanding behavior.

However, we cannot say that avatars are just digital puppets. They are also powerful tools for interpersonal communication. And these virtual representations enable individuals to engage, to interact, and communicate in unique ways.

Interpersonal Communication

- Exploring how individuals engage with information and communicate online, particularly through avatars, is vital due to their widespread use.
- People seek advice on selecting avatars that enhance their image in activities like dating, job interviews, and sales.
- The perception of avatars is influenced by:
 - individual differences, cognitive processes, past experiences, medium familiarity, engagement level, message content, interface features, realism, social potential, and graphic quality.



Source: <https://oxfordroadcorridor.com>

*Nowak, K. L. (2015). Examining perception and identification in avatar mediated interaction. In S.S. Sundar (Ed.), *The handbook of the psychology of communication technology* (pp. 89-114). Hoboken, NJ: Wiley-Blackwell.

In interpersonal communication, we can see that exploring how individuals engage with information and communicate online, particularly through avatars, has become vital due to their widespread use. People seek advice on selecting avatars that enhance their image and activities like dating, job interviews, and sales, etc. perception of avatars, as we have referred to earlier also, is influenced by individual differences, cognitive processes, past experiences, familiarity with the medium, engagement level, message content, interface features, realism, social potential, and graphic quality.

Thus, understanding the dynamics of online relationships and the unique advantages of computer mediated communication through avatars is crucial. Let us now look at the various ways in which individuals can interpret information through the use of avatars.

Responding to Avatars of Digital Others

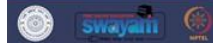
- Social Information Processing Theory: Online relationships can exhibit comparable or enhanced intimacy as face-to-face ones but might require more time to develop due to limited information channels. (Walther 1992)*
- Hyperpersonal Model: Computer-mediated communication (CMC) can surpass face-to-face interaction, offering senders significant communication advantages. (Walther 1996)**
 - Individuals adapt their behavior and perception according to the avatars they encounter, by using behavioral and visual cues, heuristics, and stereotypes from past experiences to categorize objects and individuals online and offline.



Joseph Walther (1958-present)
Source: <https://alchetron.com/>

*Walther, J. B. (1992). Interpersonal effects in computer-mediated interaction: A relational perspective. *Communication Research*, 19, 52–90.

**Walther, J. B. (1996). Computer-mediated communication: Impersonal, interpersonal, and hyperpersonal interaction. *Communication Research*, 23(1), 3–43.



We can evaluate these responses based on several theoretical approaches. The social information processing theory suggests that online relationships can exhibit comparable or enhanced intimacy as face to face ones, but might require more time to develop due to limited information channels. On the other hand, hyperpersonal model suggests that CMC can surpass face to face interaction, often senders significant communication advantages. It suggests that individuals can adapt their behavior and perception according to the avatars they encounter by using visual as well as behavioral cues, heuristics, and stereotypes from past experiences to categorize objects and individuals online as well as offline.

Furthermore, avatars serve as digital extensions of ourselves in virtual spaces. They offer a canvas for self-expression and identity exploration.

Representing the Self Through Avatars

- Impression Management Theory: Individuals adjust their self-presentation according to their objectives and their perception of situational expectations. (Goffman, 1959)*
- Online communicators can break free from the constraints of their physical appearances in traditional settings, as they can consciously choose and readily alter their online representations. (Paulos and Canny, 1997)**
- Users favor gendered (highly masculine or feminine) avatars, often choosing the same gender, with androgynous avatars reducing this trend. (Nowak and Rauh, 2008)***
- Online environments offer a platform where individuals can disclose facets of their authentic selves that they may feel uncomfortable or hesitant to reveal in face-to-face interactions. (Ellison et al., 2006)****

*Goffman, E. (1959). The presentation of self in everyday life. Garden City, NY: Doubleday.

**Paulos, E., & Canny, J. (1997). Ubiquitous tele-embodiment: Applications and implications. *International Journal of Human Computer Studies*, 46, 863-877.

***Nowak, K. L., & Rauh, C. (2008). Choose your "buddy icon" carefully: The influence of avatar androgyny, anthropomorphism and credibility in online interactions. *Computers in Human Behavior*, 24(4), 1473-1493.

****Ellison, N., Heino, R., & Gibbs, J. (2006). Managing impressions online: Self presentation processes in the online dating environment. *Journal of Computer Mediated Communication*, 11(2), 415-441.



According to the impression management theory, individuals adjust their self-presentation according to their objectives as well as their perception of situational expectations so that it can vary according to the situation. Online communicators can break free from the constraints of their physical appearances in traditional settings as they can consciously choose and readily alter their online representations. Users favor gendered avatars, that means highly masculine or highly feminine avatars, often choosing the same gender with androgynous avatars reducing the strength. Online environments also offer a platform where individuals can disclose facets of their authentic selves, but they may feel uncomfortable or sometimes hesitant to reveal in face to face interactions.

Avatars as we see do not only have the potential to represent hidden aspects of an individual, but they can also influence self-perception. It is known as Proteus effect, a captivating phenomenon which reveals how digital avatars can profoundly shape an individual's behavior and attitudes.

The Proteus Effect*

- The term “Proteus effect” draws inspiration from the Greek god Proteus, who possessed the ability to shape-shift and hide his knowledge of past, present, and future events.
- In the realm of virtual avatars, this phenomenon refers to how the characteristics observed in a player's avatar can impact their in-game behavior and attitudes.
- Individuals form expectations about their avatars based on visual cues, such as appearance; and subsequently adapt their actions and beliefs to align with these perceived attributes.
 - Example: Studies show that players who control taller avatars exhibit increased confidence and assertiveness, regardless of their real-world height.



The Greek god, Proteus
Source: <https://en.wikipedia.org>

*Yee, N, & Bailenson, J (2007). The Proteus effect: The effect of transformed self-representation on behavior. *Human Communication Research*, 33(3), 271–290.

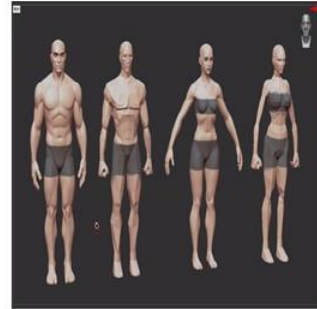


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Avatars in digital spaces can also play a significant role in self-objectification. Studies indicate that controlling sexualized avatars irrespective of gender congruence can lead to increased self-objectification among users.

Avatars and Self-Objectification*

- Researchers investigated avatars and self-body image using the Massively Multiplayer Online (MMO) videogame *RuneScape*. The focus was on the impact of sexualized avatars on self-objectification among adolescents.
 - Playing as a sexualized avatar of any gender significantly increased self-objectification among both male and female adolescents.
 - The perceived characteristics of controlled avatars were observed and embodied by participants during gameplay, persisting after gameplay.
 - Due to successful embodiment of their avatar, the actual physical world gender of the participants was no longer the most salient factor in how participants viewed themselves.



Source: <https://runescape.wiki/>

*Vandenbosch, L., Driesmans, K., Trekels, J., & Eggermont, S. (2017). Sexualized video game avatars and self-objectification in adolescents: The role of gender congruency and activation frequency. *Media Psychology*, 20(2), 221–239.



Researchers used a video game Runescape. It is a massively multiplayer online video game and researchers used it to investigate avatars and self-body image. The focus was on the impact of sexualized avatars on self-objectification among adolescents. Playing as a sexualized avatar of any gender significantly increased self-objectification among both male and female adolescents. The perceived characteristics of controlled avatars were observed and embodied by participants during gameplay persisting after the gameplay itself. Due to successful embodiment of their avatar, the actual physical world gender of the participants was no longer the most salient factor in how they viewed themselves.

Thus, we can see that the consequences of avatar embodiment can potentially persist into the postgame world also. Consequently, the study provides a novel insight into how influential the proteus effect can be in terms of behavioral and attitudinal changes. However, another study demonstrated that controlling avatars of a different gender can induce stereotypical gender-conforming behavior.

Avatar Gender and Stereotypical Behavior*

- Ratan and Sah utilized the *Nintendo Wii Sports Resort Swordplay* videogame to explore whether a player's avatar gender, influenced post-game gender-conforming behavior after a stereotype threat prompt.
- **Stereotype Threat Theory:** Refers to individuals performing worse on tasks associated with negative stereotypes about their identity or group.
- **Negative stereotype prompt in this study:** Females perform worse in math compared to males. Findings are:
 - Female participants controlling customized male avatars with low avatar-embodiment performed significantly better at post-game math tasks than those using female avatars.
 - Suggests that using avatars of a different gender can induce stereotypical gender-conforming behavior after stereotype threat prompts.



Nintendo Wii Sports
Resort Swordplay
Source: <https://www.nintendo.com>

*Ratan, R., & Sah, Y. J. (2015). Leveling up on stereotype threat: The role of avatar customization and avatar embodiment. *Computers in Human Behavior*, 50(1), 367–374.

Ratan Shah utilized a Nintendo Wii Sports Resort swordplay video game to explore whether a player's avatar gender influenced postgame gender-conforming behavior after a stereotype threat prompt. So, a stereotype threat theory refers to individuals performing worse on tasks associated with negative stereotypes about their identity or group. Negative stereotype prompt in this study found that females perform worse in maths compared to males. Findings are that female participants controlling customized male avatars with low avatar embodiment performed significantly better at postgame mathematics tasks than those using female avatars. It also suggests that using avatars of a different gender can induce stereotypical gender-conforming behavior after a stereotype threat prompts.

Hence this phenomenon underscores the need for critical examination of how avatars can either reinforce or challenge gender stereotypes. They may emphasize the potential for digital spaces to contribute to broader discussions on gender and identity.

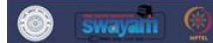
Health Communication

- Through Avatars in immersive virtual environments (IVEs), individuals can simulate health changes without risking real-world harm.
 - The Second Life platform, a 3-D Metaverse, offers potential for replicating online individual and group treatments through avatars. Some critics focused on relaxation and mindfulness (Hoch et al. 2012).* While others conducted acceptance-based treatment for social anxiety disorder (Yuen et al. 2013).**
- The metaverse's global accessibility and experiential health communication through XR may democratize participation and improve health literacy, reducing inequity. (Plechata, et al., 2021)*

* Hoch, Daniel B., et al. "The feasibility and impact of delivering a mind-body intervention in a virtual world." *PloS one* 7.3 (2012): e33843.

** Yuen, Erica K., et al. "Treatment of social anxiety disorder using online virtual environments in second life." *Behavior therapy* 44.1 (2013): 51-61.

***Plechata, Adela, Guido Makransky, and Robert Böhm. "Can extended reality in the metaverse revolutionise health communication?." *NPJ digital medicine* 5.1 (2022): 132.



With the help of avatars in immersive virtual environments or IVAs, individuals can simulate health changes without risking real-world harm. The Second Life platform, a 3D metaverse, offers potential for replicating online individual and group treatments through avatars. Some critics focused on relaxation and mindfulness while others conducted acceptance-based treatment for social anxiety disorder. The metaverse's global accessibility and experiential health communication through XR may democratize participation and may also improve health literacy, reducing inequity.

Additionally, avatars foster group communication by providing visual identities and enhancing engagement. It promotes teamwork and facilitates shared experiences in virtual environments. We will look at social identity model of deindividuation effects and member avatar similarity now.

Group Communication

- **Social identity model of de-individuation effects (SIDE):**
 - This framework proposes that sharing a similar cue (e.g., similar avatars) in an otherwise anonymous virtual environment increases the salience of group membership (Postmes, Spears, & Lea, 1998)*, which in turn can increase team performance.
- **Member–avatar similarity:**
 - Central to this argument is the idea that self-identification is a way to bridge the gap between the “real world” (the team member) and the virtual world (the avatar).
 - Group members who more strongly identify with their avatars will increase their feeling of being “present” in the virtual team, leading to a higher degree of involvement in the task (Scaife & Rogers, 2001)**, which in turn contributes to task performance (Fransen, Kirschner, & Erkens, 2011)***.

*Postmes, T., Spears, R., & Lea, M. (1998). Breaching or building social boundaries? SIDE-effects of computer-mediated communication. *Communication Research*, 25, 689 – 715.

**Scaife, M., & Rogers, Y. (2001). Informing a virtual environment to support learning in children. *International Journal of Human-Computer Studies*, 55, 115 – 143.

***Fransen, J., Kirschner, P. A., & Erkens, G. (2011). Mediating team effectiveness in the context of collaborative learning: The importance of team and task awareness. *Computers in Human Behavior*, 27, 1103 – 1113.

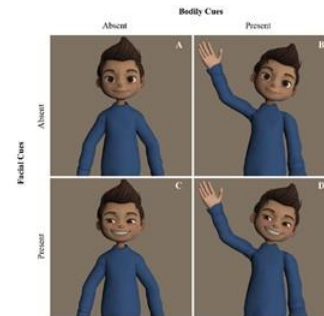


In order to look at the impact of avatars in group communication, we look at the social identity model of deindividuation effects as well as member avatar similarity. The social identity model of deindividuation effects or SIDE proposes that sharing a similar queue that means similar avatars in an otherwise anonymous virtual environment increases the salience of group membership. In turn, it increases the team performance. Member avatar similarity is central to this argument. Member avatar similarity suggests that self-identification is important and it is a way to bridge the gap between the real world that is the team member and the virtual world that is the avatar. Group members who more strongly identify with their avatars will increase their feeling of being present, actually present in the virtual team leading to a higher degree of involvement in the task which in turn contributes to task performance.

Furthermore, avatars play a crucial role in non-verbal communication by conveying emotions, gestures and expressions. It enriches the depth of online interactions.

Nonverbal Communication*

- In contrast to interlocutors in videoconferences, avatars can move in a shared virtual space where the actors might have contingent impact on virtual objects.
- Avatar representations transmit nonverbal information without disclosing the identity of the communicators.
- The transmission of nonverbal cues is based on behavioral data and not on pixels.
- Thus, specific cues (e.g., eye contact) or behavioral qualities (e.g., movement velocity) can be detected and influenced consciously either by the actors themselves, by a third-party observer, or by the computer system.



Source: <https://www.nature.com>

*Bente, G., & Krämer, N. C. (2011). Virtual gestures: embodiment and nonverbal behavior in computer-mediated communication. *Face-to-face communication over the internet: issues, research, challenges*, 176-209.

In contrast to interlocutors in video conferences, avatars can move in a shared virtual space where the actors might have contingent impact on virtual objects. Avatar representations transmit non-verbal information without disclosing the identity of the communicators. The transmission of non-verbal cues is based on behavioural data and not on pixels. Thus, specific cues for example eye contact or behavioural qualities for example the movement velocity can be detected and influenced consciously either by the actors themselves by a third-party observer or even by the computer system.

Studying avatar behaviour in virtual worlds has clear advantages over observations of human social behaviour in the physical world that we have discussed in previous models. Collecting observational data on social behaviour in the physical world often requires invasive and expensive methods such as placement of sensors or cameras at various locations or involvement of human confederates and observers. In contrast, virtual worlds make it possible to collect large amounts of data on avatar mediated social interactions in an extremely precise and automated way.

Avatars and Cross-Cultural Proxemics*

- Virtual worlds provide several advantages for the study of sociocultural conventions in proxemics, including:
 - unobtrusive measurement that does not interfere with the social interaction,
 - option to create a culturally neutral meeting location,
 - possibility to control for confounding appearance-related variables,
 - use of experimental manipulations (e.g., transformed appearance and environments) in controlled laboratory settings that go beyond the possibilities of face-to-face interactions in the physical world.



Source: <https://proxemics.weebly.com>

* Hasler, B. S., & Friedman, D. A. (2012). Sociocultural conventions in avatar-mediated nonverbal communication: A cross-cultural analysis of virtual proxemics. *Journal of Intercultural Communication Research*, 41(3), 238-259.



Virtual worlds also provide several advantages for the study of socio-cultural conventions in the area of proxemics. They include an unobtrusive measurement that does not interfere with the social interaction, an option to create a culturally neutral meeting location, a possibility to control for confounding appearance related variables, a use of experimental manipulations. For example, a transferred appearance and environment in controlled lab settings that go beyond the possibilities of face-to-face interactions in the physical world.

Avatars enable organisations and brands to establish a unique digital presence. They engage with audience and humanise digital interactions, promoting brand loyalty and connections.

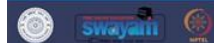
Organizational Communication*

- Park and Lee (2013)* conducted a study investigating the impact of humanizing organizational online communication on relationships with the public and their willingness to engage in word-of-mouth and dialogic interactions.
- The study found that to convey a conversational human voice on social media, social media managers must:
 - Identify as an individual, respond with real names and use avatars for online engagement.
- The overall findings of this study suggest that avatars create a sense of personal and sociable human contact on social media, which promotes favorable organization–public relationships and supportive behavioral intentions toward an organization.



Source: <http://www.linkedin.com>

*Park, Hyojung, and Hyunmin Lee. "Show us you are real: The effect of human-versus-organizational presence on online relationship building through social networking sites." *Cyberpsychology, Behavior, and Social Networking* 16.4 (2013): 265-271.



In the context of organisational communication, we would refer to a 2013 study by Park and Lee. This study investigated the impact of humanising organisational online communication on relationships with the public and their willingness to engage in word of mouth and dialogic interactions. The study found that to convey a conversational human voice on social media, social media managers must identify as an individual, respond with real name and use avatars for online engagement. The overall findings of this study suggest that avatars create a sense of personal and sociable human contact on social media. It also promotes a favourable organisation public relationship and supportive behavioural intentions towards an organisation.

Furthermore, AI avatars represent a significant advancement in the field of artificial intelligence and human computer interaction. These digital entities are designed to simulate human-like conversational and visual capabilities, enhancing user experiences in various applications.

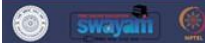
Artificial Intelligence Avatars*

- An AI avatar is a digital representation of a human in a virtual setting. AI avatars are useful for a variety of applications. Most commonly AI avatars are used as:
 - Video avatars
 - Video chatbots
 - Online characters (e.g. for gaming)
 - Virtual brand representatives
 - Customer service agents
- Most AI avatars are based on footage of real actors with their explicit consent.
 - The base video footage is then taken through an AI algorithm which creates new videos from text input.



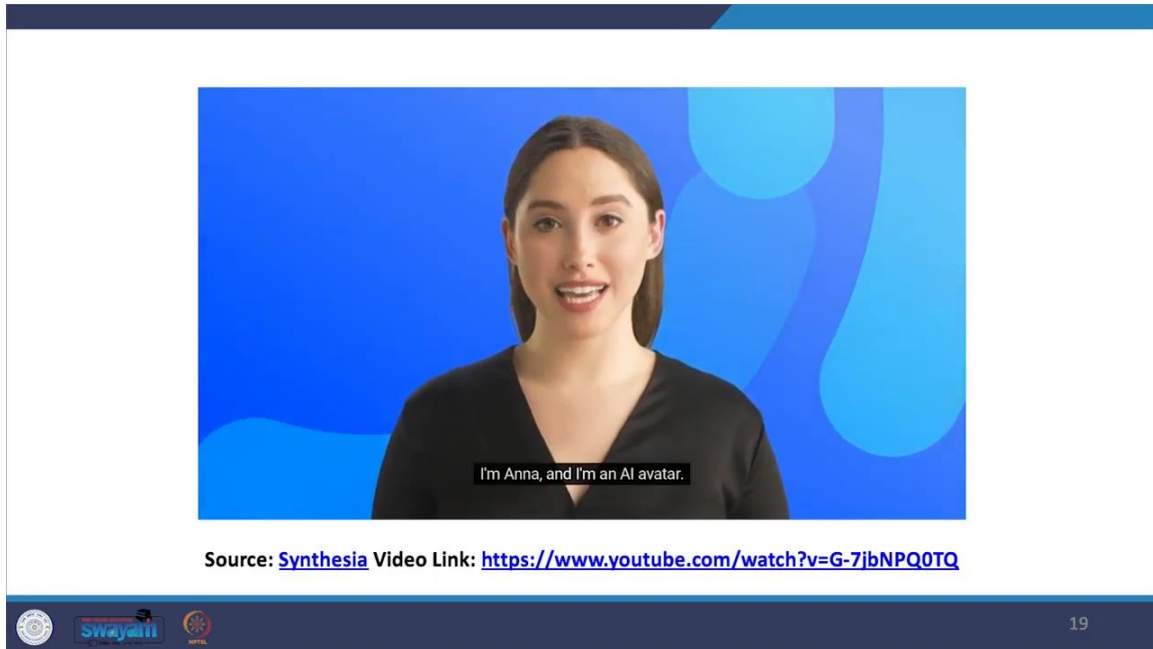
Source: <http://oben.me>

*What is an AI avatar?: Synthesia Glossary, What is an AI avatar? | Synthesia Glossary, (n.d.).



An AI avatar is a digital representation of a human in a virtual setting. They are useful for a variety of applications. For example, they are used as video avatars, video chatbots, online characters, particularly in gaming, virtual brand representatives and customer service agents. Most AI avatars are based on footage of real actors over their explicit consent. The base video footage is then taken through an AI algorithm which creates two videos from text output.

Their ability to engage in natural language conversations, recognise emotions and adapt to user preferences makes them valuable tools for personalised and interactive interactions. Let us look at an example that demonstrates AI avatar in action. In the following video, Anna, an AI avatar shares her story and provides insights into the creation and use of AI avatars. She defines AI avatars as digital twins of real people, illustrating herself as an avatar of a real actress.



Hey there, I'm Anna and I'm an AI avatar. In this short video, I'll share with you the story of how I became an avatar and quickly explain the process of creating one. An AI avatar is a digital twin of a real person.

For example, yours truly is an AI avatar of a real actress. The process of creating me started in a professional studio, where the real actress was filmed reciting a script. After that, the footage was processed by Synthesia's avatar producers, and after an AI abracadabra, a digital twin of the real actress came to life. And that's me. Coming also with the ability of speaking over 60 different languages and accents. The AI avatars you'll find in Synthesia are all digital twins of real actors.

They have a contractual agreement with Synthesia to provide their likeness for business-related videos only. A team of content moderators makes sure that nobody breaks the rules, so it is impossible to spread misinformation, disinformation, or obscenity through videos created in Synthesia Studio. By the way, you can also create your own avatar by simply requesting one directly in the app. And that's a wrap of my short story. Now you can go try Synthesia Studio for yourself and save hundreds of hours while creating professional training, how-to or explainer videos.

And one last thing. This video was, of course, created in Synthesia Studio. Have a good one. Ciao Ciao!

The video itself serves as a demonstration of the capabilities of AI avatars, showcasing their potential for creating professional videos effortlessly. When we talk about the use of AI in film and television, there are multiple techniques under development. These

synthesized techniques are collectively known as synthetic media.

Synthetic Media

- Synthetic Media covers processes such as deepfakes, voice cloning, visual effects (VFX) created using AI, and completely synthetic image and video generation.
- Synthetic media has surged with generative adversarial networks, seen in deepfakes, music, text, images, speech synthesis, and other applications.**
- Industry research and development (R&D) programmes such as Disney Research have invested a huge amount of effort into perfecting deepfake techniques. (Naruniec et. al., 2020)***

Source: <https://blog.paperspace.com>

** "A 2020 Guide to Synthetic Media". Paperspace Blog. January 17, 2020. Retrieved September 30, 2023.

*** Naruniec, J., Helminger, L., Schroers, C., & Weber, R. M. (2020, July). High-resolution neural face swapping for visual effects. In Computer Graphics Forum (Vol. 39, No. 4, pp. 173-184).

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So what exactly is the synthetic media? Synthetic media covers processes such as deep fakes, voice cloning, visual effects created using AI, and completely synthetic image and video generation. Synthetic media has surged with generative adversarial networks seen in deep fakes, music, text, images, speech synthesis, and other applications. Industry research and development programs such as Disney Research have invested a huge amount of effort into perfecting deep fake techniques.

However, synthetic media techniques pose a significant concern for the livelihood of background actors. Film and television actors in the US came out on strike this year on July 14, that is July 14, 2023 causing Hollywood productions to shut down. While the dispute is about remuneration for actors, an additional argument between the union SAG-AFTRA and film producers is about the use of artificial intelligence. Actors are fearful of the impact of AI on their careers.

Ethical and Legal Concerns

- The actors' union, SAG-AFTRA, is particularly concerned about background actors – or “extras” – being exploited by producers using AI manipulation (Roundtree, 2023).*
- During film shoots, actors' performances are digitally recorded at high resolutions, generating substantial data. Actors worry about potential AI-based data reuse.
- Emerging techniques like machine learning, capable of evolving over time, might transform an actor's role in one film into a distinct character in another movie or a video game.
- Philosophers, lawyers, ethicists, and trade unionists have engaged in the dialogue, to tackle the challenge of establishing a framework to address AI's impact on performers' images and identities (University of Reading, 2023).**

*Roundtree, C. (2023, July 22). Hollywood's fight against AI puts background actors in the spotlight. Rolling Stone. <https://www.rollingstone.com/tv-movies/tv-movie-features/hollywood-actors-strike-ai-background-visual-effects-sag-aftra-1234792405/>

** AI's impact on film industry to be explored at special event. University of Reading. (2023, June 29). <https://www.reading.ac.uk/news/2023/Research-News/AIs-impact-on-film-industry-to-be-explored-at-special-event>



The actors union SAG-AFTRA is particularly concerned about background actors or extras being exploited by producers using AI manipulation. During film shoots, actors' performances are digitally recorded at high resolutions, generating substantial data. Actors worry about potential AI-based data reuse. Emerging techniques like machine learning, capable of evolving over time, might transform an actor's role in one film into a distinct character in another movie or a video game. Philosophers, lawyers, ethicists, and trade unionists have engaged in the dialogue to tackle the challenge of establishing a framework to address AI's impact on performers' images and identities.

Actors are also angry that their systems of payment have not caught up with the streaming era with Netflix, Amazon and Disney repeating the screening of their work while paying little in the way of royalties. However, fear looms large for screen actors due to the emergence of AI. The emergence of AI also raises concerns about potential job displacements as voiced by the union president.

Another concern is the threat of identity tourism through avatars as they can perpetuate stereotypes, cultural appropriation, and promote harmful behaviors online.

Identity Tourism through Avatars

- Lisa Nakamura's "identity tourism" (1995)* concept reveals how individuals from privileged backgrounds explore marginalized identities in online spaces.
- In virtual communities, social media, and the digital realm, they experiment with different names, genders, ethnicities, or cultures through avatars.
- Identity tourism involves trying on different identities for a brief period without necessarily committing to, or fully understanding the experiences, struggles, or complexities associated with those identities.
- This fluidity challenges established notions of authenticity and prompts reflection on the performative nature of digital identities.



Carl "CJ" Johnson, protagonist of Grand Theft Auto: San Andreas
Source: <https://www.giantbomb.com>

*Nakamura, L. (1995). Race in/for cyberspace: Identity tourism and racial passing on the Internet. *Works and Days*, 13(1-2), 181-193.



Lisa Nakamura's Identity Tourism, a work published in 1995, reveals how individuals from privileged backgrounds explore marginalized identities in online spaces. In virtual communities, social media, and the digital realm, people experiment with different names, genders, ethnicities, or cultures through avatars. Identity tourism involves trying on different identities for a brief period without necessarily committing to or fully understanding the experiences, struggles, or complexities associated with those identities. This fluidity challenges established notions of authenticity and prompts reflection on the performative nature of digital identities.

Identity tourism through avatars necessitates vigilant scrutiny to minimize the risk of cultural insensitivity in online interactions. In conclusion, avatars serve as intricate tools within the realm of digital communication, offering diverse means for self-expression, enhancing user engagement, and offering novel avenues for social interaction.

Conclusion

- Avatars underscore the evolving dynamics of virtual communication, challenging traditional notions of identity, presence, and connection.
- As digital technology continues to advance, the role of avatars in digital communication remains a rich area for exploration and study, offering opportunities to better understand human behavior, the construction of online identities, and the future of virtual social interactions.
- The dangers associated with avatars in digital communication underscore the importance of ethical considerations, cultural sensitivity, and responsible usage to mitigate harmful consequences and promote safer online interactions.

Avatars underscore the evolving dynamics of virtual communication, challenging traditional notions of identity, presence, and connection as a fallout of actual offline communication. As digital technologies continue to advance, the role of avatars in digital communication remains a rich area for exploration and study, offering opportunities to better understand human behavior. The construction of online identities and the future of virtual social interactions. The dangers associated with avatars in digital communication underscore the importance of ethical considerations, cultural sensitivity, and responsible usage to mitigate harmful consequences and promote safer online interactions.

The next week will be the final module for this course. And we will be summarizing the various aspects of digital communication that we have discussed throughout the last 12 weeks.

Thank you.