**Online Communication in the Digital Age**

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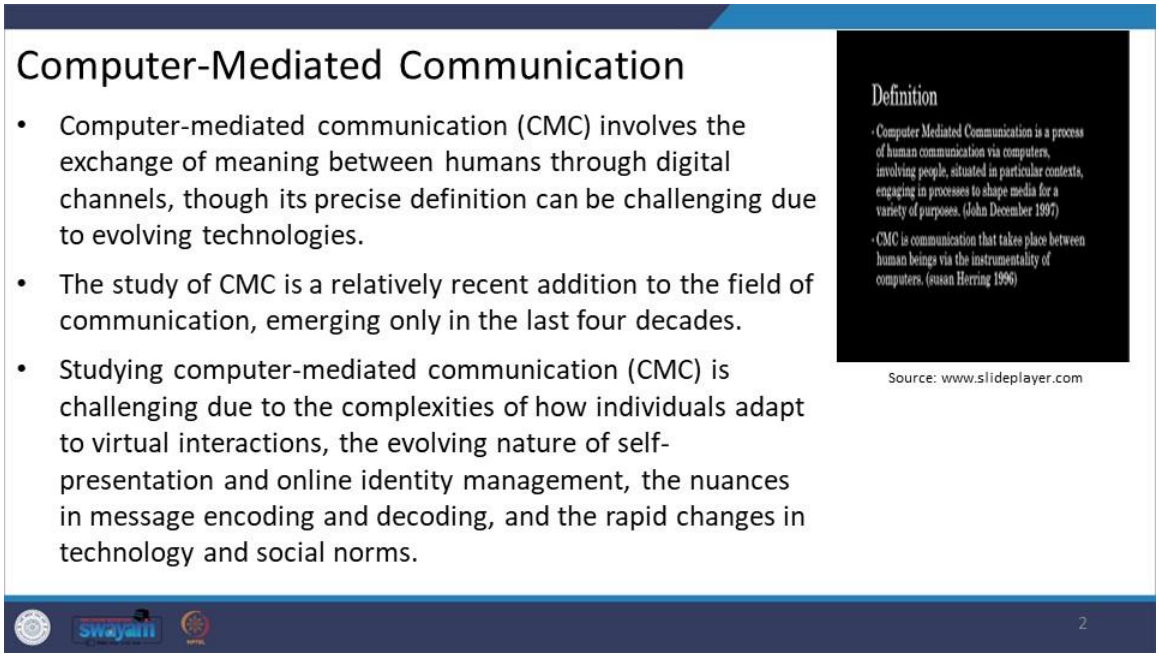
**Lecture – 02**

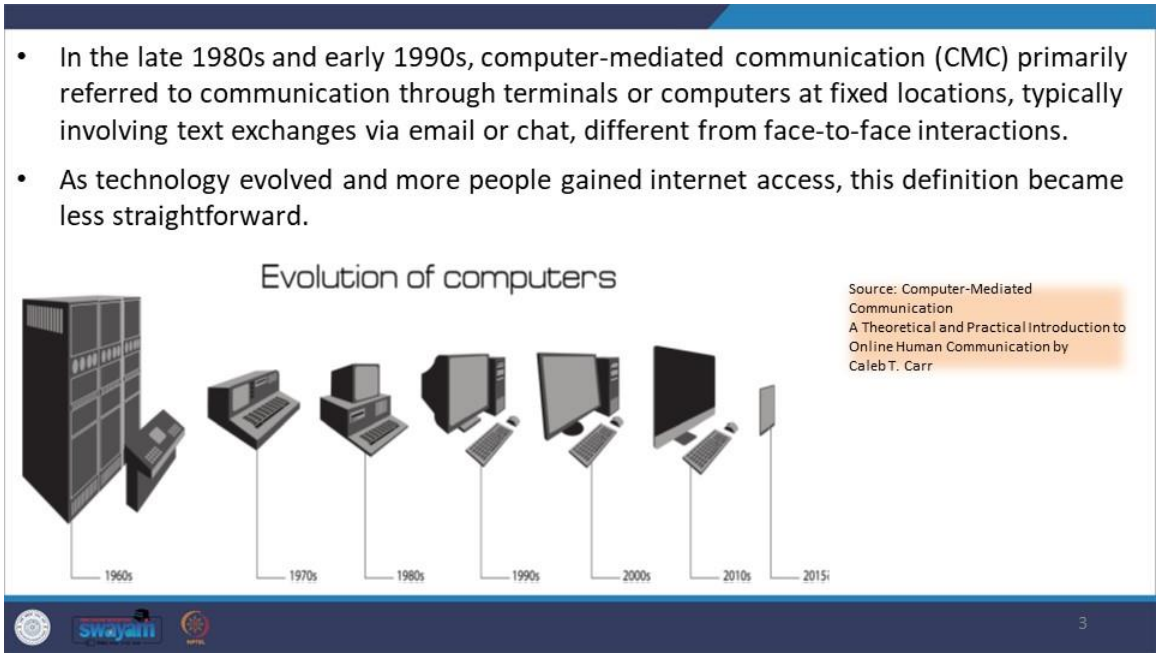
**Computer Mediated Communication**

Good morning dear friends and welcome to this module. Today, we will begin our discussion of Computer-Mediated Communication or CMC. CMC is a dynamic and ever changing field with a profound impact on communication. It offers an exciting opportunity to bridge theoretical insights with practical applications, enabling us to better comprehend our everyday communication choices through digital means. Computer-mediated communication involves the exchange of meaning between humans using the digital channels. Though the precise definition can be rather challenging as the technology keeps on continuously evolving.



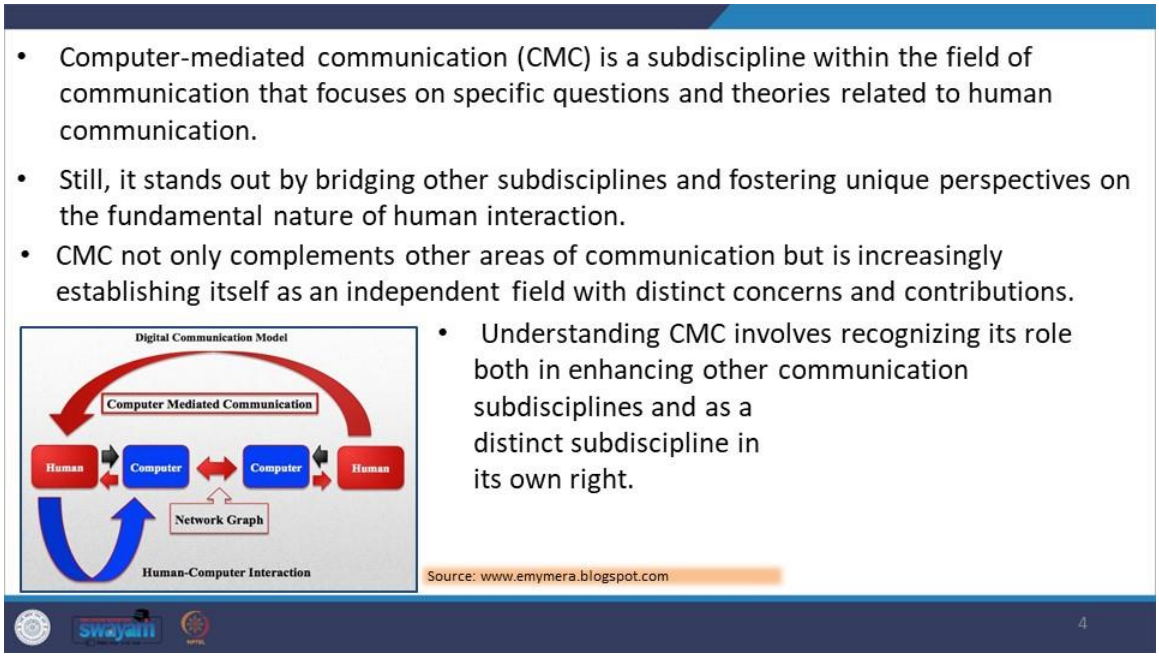

The study of CMC is a relatively recent addition to the field of communication emerging only in the last four decades. Studying CMC is challenging due to the complexities of how individuals adapt to virtual interactions, the evolving nature of self-presentation and online identity management. The nuances in message encoding and decoding and the rapid changes in technology as well as the changes in the societal norms. To understand how CMC impacts communication is challenging.

There are several factors which we have to consider for this purpose. Some discussion on theoretical approach also becomes necessary to explore how computer mediation influences communicative processes. This course takes a functional approach to the study of CMC focusing on understanding how mediation influences interactions without becoming overly tied to specific technologies. The goal is to explore the underlying communicative, psychological and social processes with the help of theoretical background avoiding the limitations of technology specific knowledge that can become quickly outdated. In the late 1980s and 1990s CMC primarily referred to communication through terminals or computers at fixed locations.




Typically involving text exchanges via email or chat it was different from face to face interactions. As technology evolved and more and more people started to gain internet access the definition became less straightforward. The definition of CMC has become more complex now due to the evolution of technology with numerous devices and communication channels available to all of us. Questions now arise about what constitutes a computer, what is truly mediated by computers and how the level of mediation affects communication. As technology advances CMC continues to evolve making it an exciting and engaging area for research and exploration within the broader

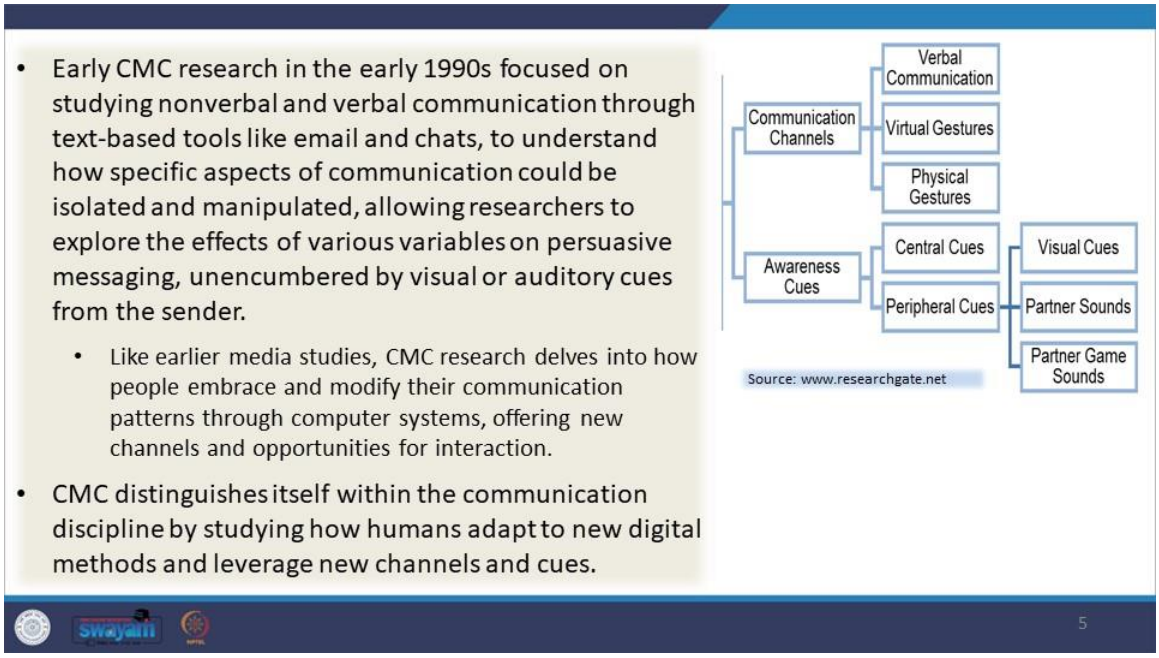
field of communication.




CMC is a sub discipline within the field of communication that focuses on specific questions and theories related to the human communication. Still it stands out by bridging other sub disciplines and fostering unique perspectives on the fundamental nature of human interaction through digital mediums. CMC not only complements other areas of communication but is increasingly establishing itself as an independent field with distinct concerns and contributions. Understanding CMC involves recognizing its role both in enhancing other communication sub disciplines and also as a distinct sub discipline in its own right. With the widespread use of computers and digital interaction, computer mediation theories and effects have become integrated into various aspects of communication transcending sub disciplines.

CMC is now a part of organizational communication as job seekers use platforms like LinkedIn. CMC also influences interpersonal communication through dating apps like Match or Tinder. It facilitates intercultural communication on social media and also raises questions about the dynamics of online fan communities blurring the boundaries between CMC interpersonal, inter-group and intra-group communication dynamics. Early CMC research in the 1990s had focused on studying non-verbal and verbal communication through text based tools like emails and chats in order to understand how specific aspects of communication could be isolated and manipulated so that researchers can be allowed to explore the effects of various variables on persuasive messaging unencumbered by visual or auditory cues from the sender. Like earlier media studies,

CMC research delves into how people embrace and modify their communication patterns through computer systems offering new channels and opportunities for interaction.




CMC distinguishes itself within the communication discipline by studying how humans adapt to new digital methods and leverage new channels and cues. For example, social network sites like Facebook and LinkedIn make social networks visible and easy to navigate eliminating the need to remember long lost contacts and facilitating job related inquiries by connecting individuals through mutual connections a feature which is not available in our offline interactions. CMC strengths out as a subfield of communication because of its exploration of communicative possibilities that while feasible offline are more prevalent and natural online. In examining processes like mass personal communication where interpersonal interactions become publicly viewable and such processes are facilitated by the technological affordances of several CMC tools now. These tools enable complex dynamics where a message can be both interpersonal in mass or public and private fostering unique tensions in online communication.

- CMC stands out as a subfield of communication due to its exploration of communicative possibilities that, while feasible offline, are more prevalent and natural online.
- It examines processes like mass personal communication, where interpersonal interactions become publicly viewable, and such processes are facilitated by the technological affordances of many CMC tools.
- These tools enable complex dynamics where a message can be both interpersonal and mass, or public and private, fostering unique tensions in online communication.

Source: www. leverageedu.com



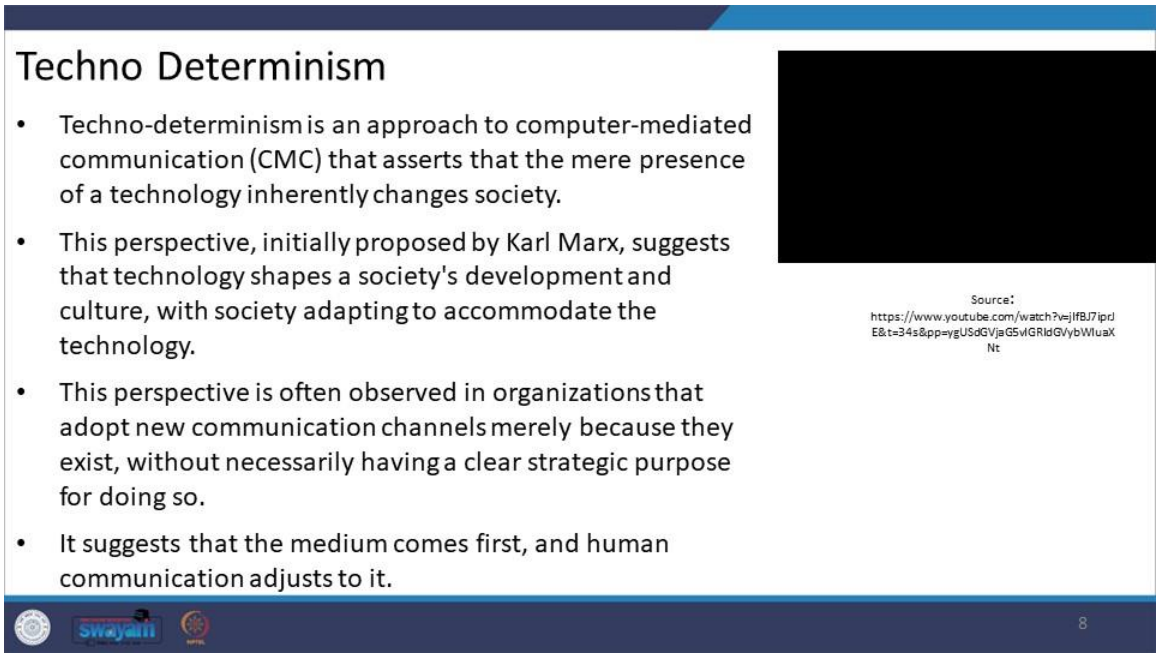
CMC researchers are interested in studying these processes as they occur more naturally in the online environment even if they are possible through other media. CMC can also be defined as the transmission of meaning between two or more humans using digital technologies with a focus on the effects of mediation on human communication processes rather than specific technological processes. This definition helps distinguish CMC from traditional mass media and emphasizes the role of computers as digital intermediaries encompassing a broad range of digital devices. CMC has evolved from basic email and chat to include complex multimodal tools enabling users to share various forms of content in a collaborative manner. Its significance has grown as billions of digital messages are being exchanged on a daily basis making it an increasingly important subject of study.

- Computer-mediated communication (CMC) is defined as the transmission of meaning between two or more humans using digital technologies, with a focus on the effects of mediation on human communication processes rather than specific technological processes.
- This definition helps distinguish CMC from traditional mass media and emphasizes the role of "computers" as digital intermediaries, encompassing a broad range of digital devices.
- CMC has evolved from basic email and chat to include complex, multimodal tools, enabling users to share various forms of content collaboratively.

Source: https://comtechtalks.wordpress.com/2015/03/18/computer-mediated-communication-cmc/

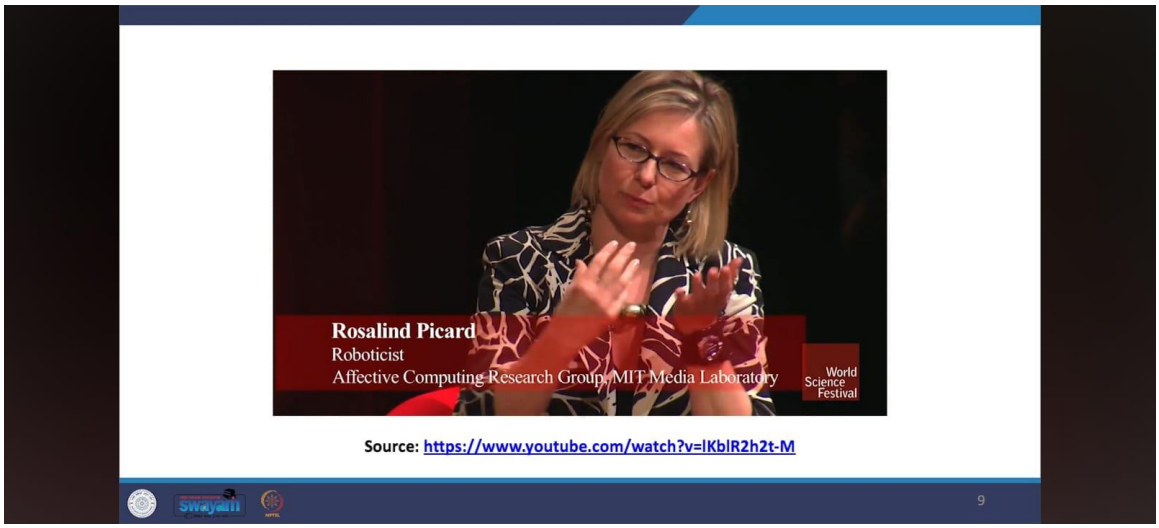


Focusing more on specific technologies or online tools in CMC research can be limiting because various factors like design, user interface and user demographics influence these tools. Instead, a theoretical approach to CMC allows for a more lasting and versatile understanding of how human beings communicate through digital platforms. This approach helps uncover fundamental psychological, sociological and communicative processes that underline interactions on different websites or tools providing valuable insights that remain applicable over time enhancing our understanding of how human communication is impacted by the ever evolving digital landscape. Technodeterminism is an approach to computer mediated communication that asserts that the mere presence of a technology inherently changes society. This perspective initially proposed by Karl Marx amongst others suggests that technology shapes a society's development and culture without society adapting to accommodate the technology.




This perspective is often observed in organizations that adopt new communication channels merely because they exist without necessarily having a clear strategic purpose for doing so. It suggests that the medium comes first and human communication learns to adjust to it. The next slide illustrates a video. In this video segment, the speaker reflects on the role of computers and technology in our lives. They note a recent shift towards building technology that augments human abilities and helps individuals in achieving their goals while maintaining control over the technology also.

The speaker also raises a fundamental question about the purpose of technology. Whether it should surpass and dominate humans or serve only as a tool to enhance our capabilities and help us to understand ourselves better. I think there are some rules about computers showing respect for people as but it's really rules for we who design them. Ultimately we have to ask what we want. Do we want to build things that surpass us and dominate us and take over like in a lot of the dystopic science fiction visions or do we want to build things that augment us? Lately there's been a real pushback instead of just building artificial intelligences that are going to somehow be smarter than us.




As my friend and colleague Marvin Minsky says, we'll be lucky if they keep us around as household pets. That kind of machine. What we're finding is people want to build things that help them to learn more about themselves, to be more effective at the goals that they want to achieve. The end result has not been to build the smartest machine, the brain that dominates our brain, but to build things that augment our brains and our bodies in ways that also help illuminate what's going on inside our brains and bodies. We learn more about ourselves and we still maintain control and we have the choice to do new things now because we know more about ourselves.

According to this view, technology is the driving force and societal changes follow. For example, a tecton determinist might argue that the widespread availability of mobile phones has reduced the need for in-person face-to-face communication. It would be pertinent at this point to refer to the philosophy of technology as suggested by the famous American critic Don Ihde. It revolves around the central questions of the role of technology in everyday human experience, the impact of technology on human existence, its relationship with the world and the influence as well as consequential transformation of human knowledge through technological artifacts.

## Human-Technology-World Relations

- Don Ihde's philosophy of technology* revolves around the central questions of technology's role in everyday human experience, its impact on human existence, its relationship with the world, and the influence, as well as consequential transformation of human knowledge through technological artifacts.
- Embodiment Relations
  - In these relations, technologies become a unified part of human beings and are directed towards the world.
- Hermeneutic Relations
  - In this type of relation, humans read how technologies represent the world. Technologies form a unity with the world, and humans are directed at understanding the representations provided by technologies.

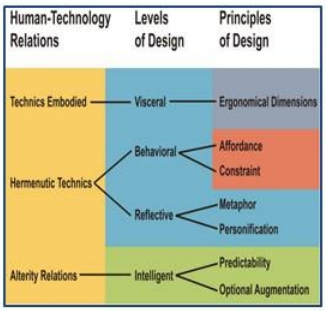
*Philosophy of Technology: An Introduction (1998), Expanding Hermeneutics: Visualism in Science (1999), Bodies in Technology (2001)

**Don Ihde (1934-)**
Source: www.wikipedia.com



He has talked about embodiment relations and hermeneutic relations. In embodiment relations, technologies become a unified part of human beings and are directed towards the world. In hermeneutic relations, humans read how technologies represent the world. Technologies form a unity with the world and humans are directed at understanding the representations provided by technologies. In the example of the former embodiment relations, we can include speaking through a phone or looking through a microscope while the latter hermeneutic relations can be seen in an MRI scan representing the brain activity.

- Alterity Relations
  - In these relations, human beings interact with technologies, and the world is in the background of this interaction.
    - This is common in human-robot interactions, using ATMs, or operating machines.
- Background Relations
  - Technologies in this type of relation serve as the context for human experiences and actions.
    - For example, the background sounds of air conditioners or the warm air from heating installations.
- Ihde emphasizes that these relations are not isolated processes that affect a fixed subject's experience of a fixed object. Instead, they *co-shape subjectivity and objectivity*, constituting both humans and the world they experience.




Source: www.medium.com

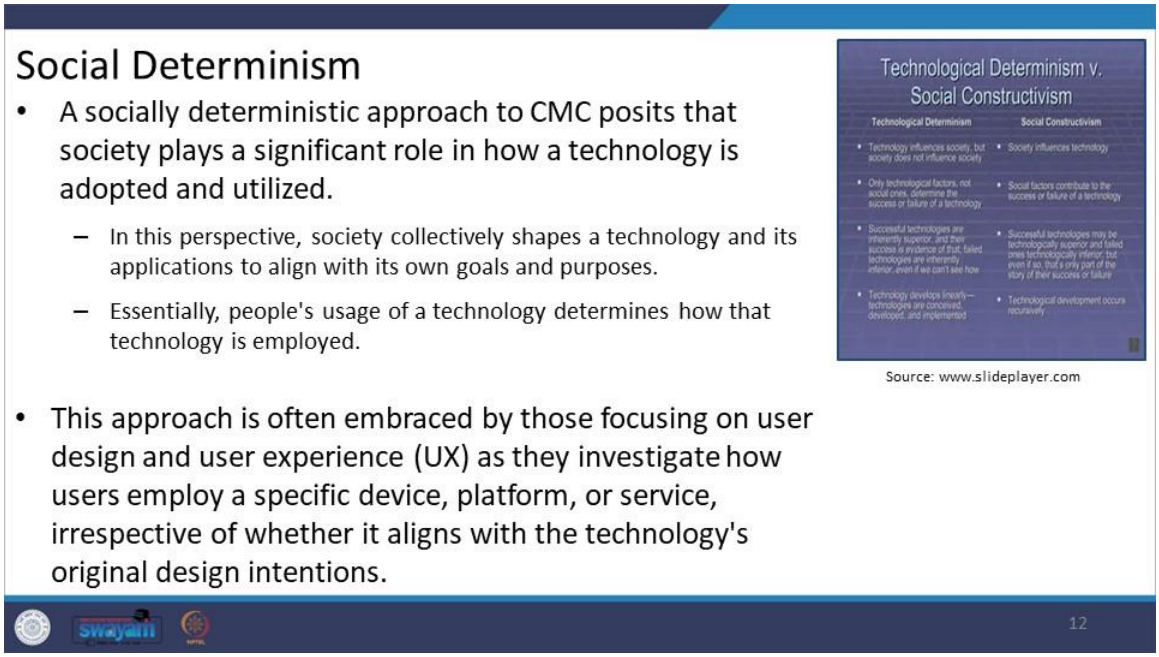


Ihde also suggests two other types of relations, alterity relations and background relations. In alterity relations, human beings interact with technologies and the world is

in the background of this interaction. For example, the human-robot interactions, human beings using ATMs or operating machines. In the background relations, technologies serve as the context for human experiences and actions. For example, the background sounds of the air conditioners or the warm air from heating installations.

Ihde emphasizes that these relations are not isolated processes that affect a fixed subjects experience of a fixed object. In a state, they co-shape subjectivity and objectivity constituting both humans and the world they experience. Don Ihde has also introduced the concept of multi-stability which implies the technologies have no fixed essence, but are defined by their use. Technologies are similar, for example, to a Necker cube which is a perceptual phenomenon.

Necker cube is an optical reversal illusion which was created by Swiss crystallographer Louis Necker in 1832. The Necker cube test is a psychological experiment showing how our brains interpret the same object or situation in different manners. Similarly, technology can also have multiple interpretations and meanings in different contexts for different people. The contextual nature of technologies makes them multi-stable. With their significance evolving based on cultural and usage-based contexts.




For instance, early typewriters and telephones were initially developed for the blind and the hard of hearing, but they quickly took on new meanings and uses within broader cultural context and started to serve everyone. A socially deterministic approach to CMC posits that society plays a significant role in how a technology is adopted and utilized. In this perspective, society collectively shapes a technology and its applications to align with its own goals and purposes. Essentially, it is the people's usage of technology which determines how the technology is to be employed. This approach is often embraced for

those focusing on user design and user experience as they investigate how users employ a specific device, a technological platform or service irrespective of whether it aligns with the original design intentions of the concerned technology.

For instance, a social determinist might highlight how mobile phones have been adapted by people to maintain contact with a diverse range of individuals. A usage that might not have been as prevalent with either landline phones or written letters. Langdon Winner's arguments holds importance for both creators and users of digital communication technologies. His arguments emphasize that technology choices in the digital realm, including the adoption of new technologies and the design of digital systems are inherently political. These choices often go beyond practical considerations and involve selecting forms of digital life that embody certain possibilities and values.


Langdon Winner is the Thomas Pellet Chair of Humanities and Social Sciences at Rensselaer Polytechnic Institute, New York. He proposes that technologies embody social relations, that is power. His argument revolves around the idea that technology is not neutral, but carries inherent political properties. He suggests that technology can have political implications. The first implication which he highlights in the context of digital communication is that the design or arrangement of a technical device or system can resolve political matters in a community.

For example, the height of bridges in Long Island designed to discourage bus traffic could also have repercussions about the limited access for racial minorities and low income groups who were dependent on the bus traffic reinforcing a particular political agenda. The design of online platforms, their algorithms and content moderation policies can also impact issues like free speech, privacy and access to information. Some

technologies necessitate specific social arrangements and reinforce particular political relationships. For instance, large ships require hierarchies while nuclear power plants demand centralized control making them inherently political artifacts. The architecture of the internet and its governance structures may also affect issues related to censorship, surveillance and ownership of the data.

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  - For instance, large ships require hierarchies, while nuclear power plants demand centralized control, making them inherently political artifacts.
  - The architecture of the internet and its governance structures may affect issues related to censorship, surveillance, and data ownership.
- Winner also acknowledges that technology can have political implications without being part of a conscious conspiracy.
  - For instance, the failure to accommodate individuals with disabilities has arisen from long-standing neglect rather than malicious intent.
  - The unintentional consequences of algorithms on social media platforms can lead to the spread of misinformation or the amplification of certain viewpoints.

Source: www. prezi.com



Winer also acknowledges that technology can have political implications without being part of a conscious conspiracy. For instance, the failure to accommodate individuals with disabilities has arisen from long standing neglect rather than malicious intent. The unintentional consequences of algorithms on social media platforms can lead to the spread of misinformation or the amplification of certain viewpoints. In the modern context, we may fail to recognize the political nature of these decisions as certain norms and practices become ingrained in our digital ecosystem. Therefore, it is crucial to acknowledge the political and ethical implications of digital communication technology related choices.

- Understanding how individuals use computer-mediated communication (CMC) can benefit from both techno-determinism and social determinism.
  - For example, research on the meaning of a Facebook "Like" button showed that some users employed it simply because it was available, as a straightforward means of communication.
  - However, other users used the Like button more selectively, based on social norms within their network, which had shaped the meaning of a Like.
- These approaches help explain different situations, and are useful in comprehending the relationship between CMC and the users of computer technologies.

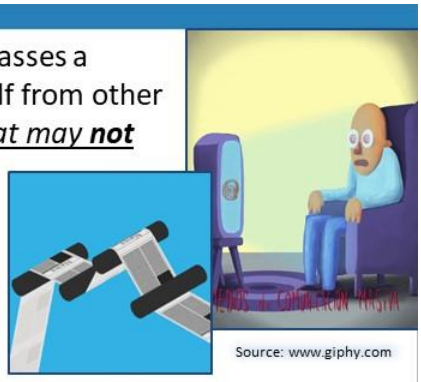

Source: www. tenor.com



These technologies can embody and reinforce specific social arrangements, values and power dynamics. Understanding how individuals use CMC can benefit from both techno determinism and social determinism. For example, research on the meaning of the Facebook's like button showed that some users employed it simply because it was available as a straightforward means of communication. However, some other people use the like button more selectively based on social norms within their network which had shaped the meaning of a like. These approaches help explain different situations and are useful in comprehending the relationship between CMC and the users of computer technologies.

In practice, people may use technology both because it is there and also because it aligns with social norms or the peer behaviors often combining elements of both perspectives in their usage. Reflecting on our CMC tool usage, we may notice a blend of techno determinism and social determinism in our interactions. Computer mediated communication encompasses a specific communication realm and distinguishes itself from other forms of communication. It is helpful to consider what may not be considered as CMC for the clarity of our understanding. First, face to face or F to F communication is a distinct category which is entirely separate from CMC and while it will be explored during our discussions, it primarily serves only as a point of comparison.

- Computer-mediated communication (CMC) encompasses a specific communication realm and distinguishes itself from other forms of communication. It's helpful to consider *what may **not** be considered* as CMC for clarity.
  - First, face-to-face (FtF) communication is a distinct category that's separate from CMC, and while it will be explored in this context, it primarily serves as a comparison point.
  - Mass-mediated communication, such as television, radio, and newsprint, is also distinct from CMC. These forms of communication lack the interactivity and identifiability that are fundamental to CMC.
  - Additionally, various types of communication occurring through the Internet and computers, like online newspapers, podcasts, and Skype phone calls, don't necessarily fall under CMC, unless they possess the unique hallmarks of CMC.



Source: www.giphy.com



Mass mediated communication such as television, radio and newsprint is also distinct from CMC. These forms of communication lack the interactivity and identifiability that are fundamental to CMC. Additionally, various types of communication occurring through the internet and computers like online newspapers, podcast and Skype phone calls do not necessarily fall under the category of CMC unless they process the unique hallmarks of computer mediated communication. To determine if an interaction qualifies as CMC, we can ask whether we could study the same phenomenon through other communication channels. If the research could be conducted as effectively using different means, it might be a question about mediated communication, but not necessarily about CMC.

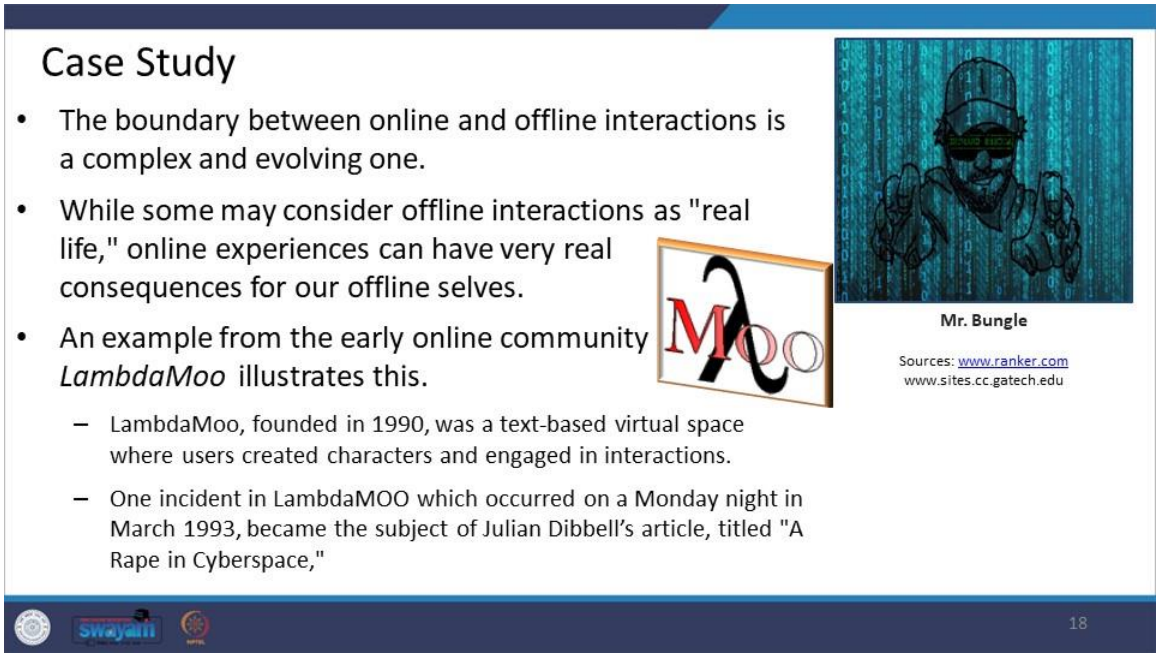
## Emerging Dynamics of Human-Computer Interaction

- A growing area of interest is how individuals communicate with computers and vice versa, given the increasing capabilities of algorithms and machines to send and receive messages.
  - This field explores the dynamics of human-computer interaction, which is theoretically and practically significant.
  - It is particularly relevant as robots, virtual agents, and adaptive programs simplify interactions between humans and computers. For instance, digital assistants like Alexa, Google Home, Siri, and Cortana can assist with various tasks upon request.
  - There are situations where it's more natural/less stressful to communicate with machines than humans (seeking therapy or counselling from a non-judgmental computer program).

Source: www.nbcnews.com

A growing area of interest is how individuals communicate with computers and vice versa, given the increasing capabilities of algorithms and machines to send and receive messages. This field explores the dynamics of human computer interaction which is theoretically and practically significant. It is particularly relevant as robots, virtual agents and adaptive programs simplify interactions between humans and computers. For instance, digital assistants like Alexa, Google Home, Siri and Cortana can assist with various tasks upon request. There are situations where it is more natural and less stressful to communicate with machines than humans.

For example, a person can anonymously try to seek therapy or counseling from a non-judgmental computer program. However, the field of human computer interaction or the HCI which deals with interaction between humans and computers is somewhat beyond the scope of our exploration. While we will touch on certain aspects of HCI in connection with CMC, our primary focus will remain on human to human interaction occurring over computer channels using digital mediums as this is the core area of our exploration. The boundary between online and offline interactions is a complex and continually evolving one. While some people may consider offline interactions as real life, online experience can also have very real consequences for our offline selves.




To illustrate this idea better, we can take up the example of an early online community LambdaMoo as a case study. LambdaMoo was founded in 1990. It was a text based virtual space where users created characters and through them engaged in interactions. One incident in LambdaMoo which had occurred on a Monday night in March 1993 became the subject of an article by a journalist Julian Dibbell titled A Rape in Cyberspace. This article was reproduced in several ways later on.

The incident involved a player whose online name was Mr. Bungle who used a voodoo doll sub-program to perform actions falsely attributed to other characters within the virtual community. These actions went beyond the established community norms involving explicit sexual content and violations of avatar's autonomy. Following these deplorable actions of Mr. Bungle, some users expressed their emotional trauma on the inMoo mailing list.

- This case highlights that online interactions can have genuine emotional and social consequences.
  - While they may not involve physical harm, the impact on individuals and communities is fundamental.
  - Profane tweets, online harassment, and doxing (revealing a user's personal information for harassment) are examples of online behaviors with tangible offline effects, including job loss and emotional distress.
- The boundary between online and offline is not as clear-cut as it may seem, and the consequences of online actions can spill over into the offline world.
  - Despite the advancements in technology and the shift towards more visual and interactive online experiences, the fundamental questions and tensions regarding this boundary remain relevant.

Source: www.theatlantic.com



The incident as described by the journalist Julian Dibbell sheds light on the complexities of online communities, their governance and the blurred lines between real life and the virtual reality. This case highlights that online interaction can also have genuine emotional and social consequences. While they may not involve in physical harm, the impact on the psyche of the individual and communities can be permanent and fundamental. Profane tweets, online harassment and doxxing are examples of online behaviours with tangible offline effects including job loss or emotional distress. The boundary between online and offline is not as clear cut as it may seem and the consequences of online actions can spill over into the offline world.

Despite the advances in technology and the shift towards more visual and interactive online experiences, the fundamental questions and tensions regarding this boundary remain relevant. The case study of LambdaMoo and Mr. Bungle demonstrates the intricate interplay between techno determinism and social determinism. Technology and its design influence human behaviour, but they are also shaped by the value norms and collective decisions of the user community. It shows that technology and society are interdependent with each influencing and being influenced in turn by the other in a dynamic and complex manner.

## Conclusion

- Computer-mediated communication (CMC) is a continually evolving field that significantly impacts various communication aspects.
- While challenging to keep pace with the rapid technological developments, it's an exciting and ever-evolving area for exploration.
- The goal is to connect these theories to real-life applications, allowing readers to reassess their everyday interactions and understand the processes behind their choices in using specific communication channels.

Source: www.orfonline.org



Computer-mediated communication or CMC is a continually evolving field that significantly impacts various communication aspects. While challenging to keep pace with the rapid technological developments, it is an exciting and ever evolving area for exploration. The goal is to connect these theories to real life applications allowing readers to reassess their everyday interactions and understand the processes behind their choices in using specific communication channels. The discussion today shows that technology and society are interdependent with each influencing and being influenced by the other in a vibrant and multifaceted manner. The next module shall discuss the capacity of computer-mediated communication to foster socio-emotional connections.

We shall also discuss the media richness theory in this context. Thank you.