

Online Communication in the Digital Age
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Lecture – 03
Impersonal Computer Mediated Communication

Good morning friends and welcome to this module. In the previous module, we had endeavoured to bridge the gap between theoretical insights and practical applications in the context of one's choice of specific communication channels. Today, we shall explore the potential for socio-emotional relationships in computer mediated communication and also examine the role of media richness theory in guiding our online interaction. The study of CMC, computer mediated communication, gained significant attention in the mid 1970s only due to limited online communication opportunities which existed in contemporary world. They were initially limited to the military and large research universities. Moreover, CMC was initially seen as an inferior medium for communication, believed to lack the richness of face to face communication or even the richness of the telephonic interactions.

This perception persisted for almost two decades emphasizing the impersonal nature of communication through CMC. So, what do we understand by impersonal communication? Impersonal communication as Caleb T. Carr has mentioned involves interactions that facilitate communication, but do not foster meaningful relationships based on the recognition of individual traits and personalities. Also, we cannot say that it is inherently negative.

Impersonal Communication*

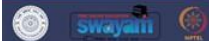
- Impersonal communication involves interactions that facilitate communication but do not foster meaningful relationships based on individual traits and personalities.
- It is not inherently negative and often occurs while following social scripts in everyday situations, such as store purchases or casual acknowledgments.
- In the early stages of Computer-Mediated Communication (CMC) research, the Internet was not initially seen as a medium capable of supporting the types of interactions needed for relational development, leading to its limited exploration.

Impersonal comm.

- Communication that treats people like objects or responds to their roles rather than who they are as unique individuals
- Examples:
 - Store clerks
 - Restaurant employees
 - Clients

Source:
<https://www.slideserve.com/jacob/interpersonal-communication>

* Carr, Caleb T. (2021) Computer-Mediated Communication: A Theoretical and Practical Introduction to Online Human Communication, U.K.: Rowman & Littlefield.



Even now we find that it occurs while we follow the social scripts in our everyday interaction situations such as during our store purchases or in casual acknowledgments of each other. In the early stages of CMC research, the internet was not initially seen as a medium capable of supporting the types of interactions which were needed for relationship development. And therefore, it was a factor in its limited exploration in the research at that time. In the mid 1970s, scholars started examining CMC because organizations and work groups began using it for decision making. This shift was driven by the emergence of group decision support system commonly known as GDSS which served as precursors to modern workplace collaboration tools like Slack or Microsoft Teams.

These systems allowed members to exchange information and make decisions through online discussions marking a significant moment. When CMC gained academic attention for its impact on the processes of communication. We should also recognize the significance in any communication research of CFOs or the cues which have been filtered out. The earliest paradigms of online communication known as the CFO or cues filtered out approach argued that CMC could not convey the cues which are necessary for interpersonal communication. The emotional and social cues in CMC remain limited and therefore, it cannot establish meaningful interpersonal connections.

CFO: Cues Filtered Out

- The earliest paradigm of online communication, known as the "cues filtered out" (CFO) approach, argued that CMC couldn't convey the cues necessary for interpersonal communication.
 - As the transmission of emotional and social cues in CMC is limited, it cannot establish meaningful interpersonal connections.
- While more recent research has shown that meaningful interactions and relationships can occur online, the CFO approach played a crucial role in establishing CMC as a research field and is still relevant in some online contexts and experiences.

EMC Theories

1. Cues-Filtered-Out Theory:

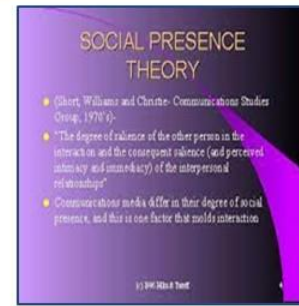
This theory suggests that communication of emotions is restricted when people send messages to others via e-mail or other electronic means because nonverbal cues such as facial expression and tone of voice are filtered out.

Source: www.slideplayer.com

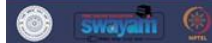
So, what exactly are these cues? Mainly the cues are the part of non-verbal communication skills, the kinesic aspects, the facial expression of our emotions, the eye contact, proxemics, etcetera. While more recent research has shown that meaningful interactions and relationships can also occur online, the CFO approach still played a crucial role in establishing CMC as a research field and it is still relevant in some online contexts and experiences. The cues filtered out paradigm which initially suggested that CMC was primarily suited for impersonal interactions only drew on to more specific theories that are the social presence theory and the lack of social context cue hypothesis. These theories support this approach that is the approach of the CFO to explain its conclusions about CMC limitations in conveying meaningful social interactions. Despite evolving research, the CFO paradigms historical importance and its foundational role in more detailed theories make it a notable aspect of the research studies of CMC.

Social Presence Theory

- The Cues Filtered Out (CFO) theories, particularly driven by social presence theory, contended that online communication was perceived as impersonal due to its inability to convey socio-emotional cues.
- Unlike face-to-face (FtF) communication, which allows multiple modes for conveying messages, CMC is predominantly text-based, limiting its capacity to transmit socio-emotional cues.
- These cues encompass nonverbal and verbal signals that indicate a communicator's social presence, emotions, and interpersonal closeness, such as gestures, facial expressions, tone of voice, and proximity etc.



Source: www.web.njit.edu.com



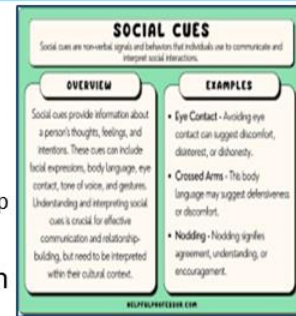
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The CFO theories which are particularly impacted by the social presence theory contain that online communication was perceived as impersonal due to its inability to convey socio-emotional cues. In face to face communication, we find that multiple modes for conveying messages are there. However, in comparison, CMC used to be predominantly text based and it limited its capacity to transmit the socio-emotional cues in the early stages of the computer developments. These cues encompass non-verbal as well as verbal signals that indicate a communicators social presence, emotions and interpersonal closeness such as gestures, facial expressions, tone of voice, proximity, other kinesic and body linguistic signals. The absence of socio-emotional cues in online communication as proposed by the CFO paradigm hampers the ability to perceive social presence which includes feelings of connection, emotions and interpersonal closeness amongst the interactants.

In other words, without the non-verbal and verbal indicators that convey these aspects in face to face interactions, it becomes challenging to establish a sense of genuine connection and interpersonal relationships. This limitation was a key reason why CFO theories initially predicted that online communication would be less conducive in meaningful social interactions. Let us now look at the lack of social context cues hypothesis. The inability of computer mediated communication channels to transmit social cues was another reason which was suggested in this context. Social cues encompass environmental and relational indicators that help people navigate interactions and anticipate communication dynamics.

Lack of Social Context Cues Hypothesis

- The inability of CMC channels to transmit social cues was another reason suggested in this context.
 - Social cues encompass environmental and relational indicators that help people navigate interactions and anticipate communication dynamics.
- Early CMC studies found that communicating via email, which lacked face-to-face interaction and social context, prevented participants from observing and interpreting these norms.
- Consequently, interactants found it difficult to assess the individual characteristics of their communication partners, potentially leading to, resistant, disinterested or even belligerent behavior.



Source: www.helpfulprofessor.com

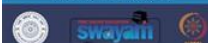


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Early CMC studies found that communicating via email which lacked face to face interaction and social context prevented participants from observing and interpreting these norms. Consequently, interactants found it difficult to assess the individual characteristics of their communication partners potentially leading to a feeling of resistance, disinterest or even leading to a belligerent behaviour in communication. Due to these limitations, CMC was considered to be better suited for impersonal or official interactions. It was considered detrimental to online relationship development. The cues filtered out or the CFO paradigm was a dominant perspective in CMC research for several years, guiding studies on how online communication impacted interpersonal and group communication processes.

The State of CFO

- The Cues Filtered Out (CFO) paradigm was a dominant perspective in CMC research for many years, guiding studies on how online communication impacted interpersonal and group communication processes.
- However, since the mid-1980s, the CFO paradigm has largely been set aside due to changes in available communication technologies and how individuals have adapted to online communication.
 - While it's not a dominant perspective today, elements of the CFO paradigm still influence modern studies, particularly in addressing the absence of certain cues related to identity.
- This paradigm can help us understand how our online interactions are shaped and how we deliberately select and limit cues when communicating in different CMC channels.



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However, since the mid 1980s, the CFO paradigm has largely been set aside due to changes in available communication technologies and how individual people have adapted quickly to online communication usage in their daily lives. We can say that while it is not a dominant perspective today, elements of the CFO paradigm still influence modern studies, particularly when we try to address the absence of certain cues related to identity. The paradigm can help us understand how our online interactions are shaped and how we deliberately select and limit cues when communicating in different CMC channels. Impersonal communication serves a purpose in diverse settings. It remains pertinent in specific circumstances, especially in situations which are characterized by brief one time interactions or when there are minimal expectations of building deep interpersonal connections.

Media Richness Theory (MRT)

- In the 1980s, the expansion of computer and Internet usage was primarily driven by organizations, largely due to the popularity of electronic mail (email), allowing instant global or local messaging and data transfer at no cost.
 - As more businesses and organizations adopted email, group decision support systems (GDSSs), and file sharing, it became evident that different media choices were more suitable for specific communication needs.
- In 1986, Daft and Lengel introduced the *Media Richness Theory* (MRT), which explains why individuals select particular media tools for sending messages and making decisions, especially in organizational contexts.

Source: https://youtu.be/AmhAQ_HMK2U?si=_2DAXr78Nt8hmQM

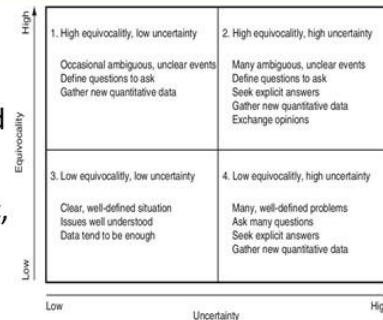
Let us look at the media richness theory. It was suggested by Daft and Lengel in 1986. It explains why individuals select particular media tools for sending messages and making decisions especially in organizational context. And in the 1980s, the expansion of computer and internet usage was primarily driven by organizations largely due to the popularity of emails allowing instant global as well as local messaging and data transfer at practically no cost. As more and more businesses and organizations started to adopt email, group decision support systems and file sharing, it became evident that different media choices were more suitable for specific needs in the domain of communication.

Media richness theory classifies communication channels as either lean or rich by assessing their capacity to convey socio-emotional messages content. It proposes that the selection of a specific medium should be contingent upon the nature of the information. In other words, MRT recommends tailoring the choice of medium according to the specific message content in order to optimize effective communication

traits. The media richness theory has classified information needs into two categories, reducing uncertainty and reducing equivocality. Uncertainty in MRT pertains to the need for specific concrete information to make decisions such as accessing past sales data, etc.

Uncertainty and Equivocality

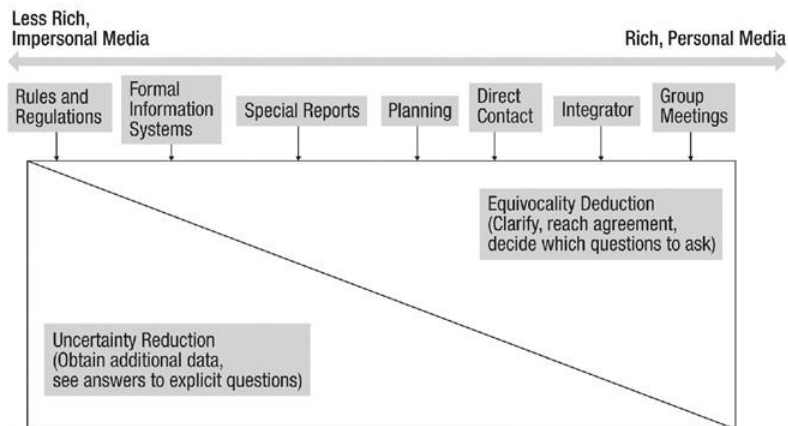
- Media Richness Theory (MRT) classifies information needs into two categories: *reducing uncertainty*, and *reducing equivocality*.
- Uncertainty in MRT pertains to the need for specific, concrete information to make decisions, such as accessing past sales data.
- According to MRT, leaner communication channels like email or Slack are suitable for addressing these needs.
- Equivocality in MRT involves identifying one option among several vague or nebulous choices, often referred to as ambiguity.



Source: www.researchgate.net

According to MRT, leaner communication channels like email or slack are suitable for addressing these needs. Equivocality in MRT involves identifying one option amongst several vague or nebulous choices often referred to as ambiguity. For high equivocality problems, richer media like telephone calls or Zoom video chats, etc. which allow for rapid feedback and continuous improvement in terms of clarity of our communication and feedback are recommended. These high equivocality scenarios may lead to further questions highlighting the need for richer communication channels.

Applying Media Richness Theory (MRT)

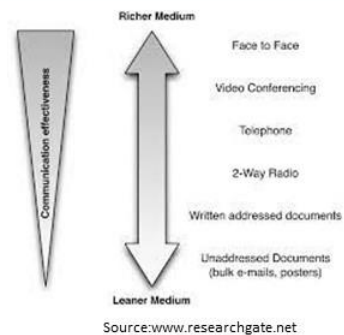


Source: Carr, Caleb T. (2021) Computer-Mediated Communication A Theoretical and Practical Introduction to Online Human Communication, U.K.: Rowman & Littlefield.

MRT suggests a range of communication media to strategically transmit messages based on the levels of uncertainty and ambiguity in the information being communicated.

MRT suggests a range of communication media illustrated in this diagram to strategically transmit messages based on the levels of uncertainty and ambiguity in the information being communicated to the other interactants. The theory proposes that the most appropriate medium aligns with the specific communication needs. For instance, when more ambiguity exists, richer channels like face to face interaction or direct video calls are preferable for seeking feedback. Whereas, in situations with more uncertainty, leaner channels like bulletin boards or group texts are more suitable providing direct and concrete information. The choice of communication media is guided by the need to address uncertainty and equivocality.

- Leaner media are suitable for reducing uncertainty, while richer media are required for handling equivocality.
 - Often, media selection is determined by these needs, and different media fulfill various richness requirements.
- It's worth noting that this model encompasses communication channels beyond Computer-Mediated Communication (CMC), including memos, telephone calls, bulletin boards, and even non-mediated face-to-face interactions.
- Additionally, this illustration may be outdated as it doesn't consider newer forms of social media like group chats or Snapchat stories.



Leaner media are considered to be more suitable for reducing uncertainty while richer

media are required for handling equivocality. Often, media selection is thus determined by these needs and different media fulfill various richness requirements. We can also note that this model encompasses communication channels beyond CMC including Memos, telephone calls, bulletin boards and even non-mediated face to face interaction. However, this illustration may also be considered as outdated as it does not consider newer forms of social media like group chats or snapchat stories. Media richness theory as emphasized by Daft and Lengel has traditionally categorized CMC channels particularly text based ones like list-serves and online bulletin boards as leaner and thus considered impersonal.

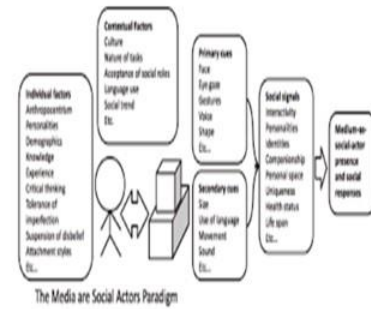
- The categorization of MRT as emphasized by Daft and Lengel in 1986, stems from the primary use of lean media for information dissemination, with little focus on their potential for interpersonal communication.
- Consequently, discussions and applications of MRT have often centered around information exchange through lean media, while richer channels were typically associated with face-to-face or interpersonal interactions.
- Although some research has explored how managers' choices of communication media affect supervisor-subordinate relationships, MRT research largely maintains its focus on lean media.

Source: www.chds.us

The categorization stems from the primary use of lean media for the dissemination of information with little focus on their potential for interpersonal communication. Consequently, discussions and applications of MRT have often centered around the exchange of information through lean media while richer channels were typically associated with face to face or interpersonal interactions. It can be noted that the MRT research largely maintains its focus on lean media. At the same time, there have been other researches which have explored how the managers choices of communication media also affect the supervisor and the subordinate relationships. This emphasis on lean media may be there due to subsequent theories focusing more on the role of richer media in conveying socio-emotional meanings and guiding interpersonal relationships.

Computers as Social Actors (CASA)

- The "computers as social actors" (CASA) paradigm explores how people interact with computers and technology, considering these interactions as if they were interpersonal relationships.
- Although it may seem strange to anthropomorphize inanimate objects like computers, this theory examines how individuals sometimes attribute human-like qualities to technology, such as giving their car or tablet a pet name or expressing frustration when a device doesn't function as expected.



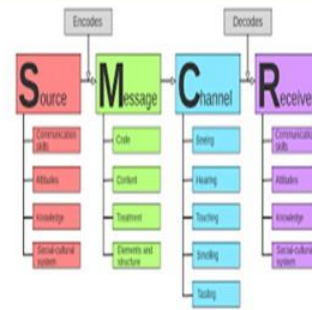
Source: www.stars.library.ucf.edu



Another paradigm which we can refer to here is that of computers as social actors or the CASA. The CASA paradigm explores how people interact with computers and technology considering these interactions as if they were interpersonal relations. Although it may seem rather strange to anthropomorphize inanimate objects like computers, this theory examines how individuals sometimes attribute human like characteristics to technology such as giving their cars or tablets a pet name or expressing frustration when a device does not function as expected. In essence, CASA examines the way people relate to and interact with technology treating it as if it were a social actor. Therefore, it is classified as an impersonal theory due to the inanimate nature of computers.

The theory of computers as social actors has originated from the work of some Stanford University researchers in 1994. The team included Nass, Steuer, and Tauber. They posit that people's interactions with computers inherently possess social aspects. It is important to note that this theory does not suggest that people view computers as living beings. Studies have consistently indicated that individuals who give names to their tablets etc. for example, are aware that computers lack life and animation. However, computers and technology despite being a series of programs and algorithms can effectively serve the essential functions required for a basic model of communication.

- Berlo's transactional model of communication, introduced in 1960, outlines the communication process as a sender encoding a message and transmitting it to a receiver via a medium.
 - The receiver decodes the message and provides feedback to the sender.
- In the context of the Computers as Social Actors (CASA) perspective, a computer becomes a part of this transactional model.
 - When you issue a command to a computer, it responds according to programmed algorithms and provides feedback, either confirming successful execution or indicating issues.



Source: www.wikipedia.com

In his work, Carr has referred to Berlo's Transactional Model of Communication which was introduced in 1960. This model outlines the communication process as a sender encoding a message and transmitting it to a receiver via a medium and the receiver decodes a message and provides feedback to the sender. In the context of computers as social actors perspective, a computer becomes a part of this transactional model.

When you issue a command to a computer, it responds accordingly to programmed algorithms and provide feedback either confirming successful execution or indicating certain problematic issues. While computers are not sentient beings, the CASA perspective helps us to understand the interpersonal communication that takes place with technology as we increasingly anthropomorphize it. Experiments have generally supported the CASA paradigm highlighting how individuals often attribute cognitive and emotional qualities to their computers. Some studies like the research by Von der Pütten, Krämer, and Eimler, have even shown potential health benefits for senior citizens who interact with computers or computer programs and find that it can be less stressful than interacting with human professionals in certain contexts. This demonstrates how talking to a machine can in fact alleviate feelings of isolation even though it is not considered as interpersonal communication as far as the beneficial aspects are concerned.

Textual CASA

- The language and interaction style used by computer programs can influence a person's thoughts, feelings, and behaviors, particularly in terms of how human the program is perceived.
- One way to enhance a computer's perceived humanity is to modify its language.
- In a study by Walther and colleagues in 2011, participants input stories about their outgoing experiences, and they received feedback assessing their extroversion either from a computer analysis of their word choice or from a graduate psychology student.

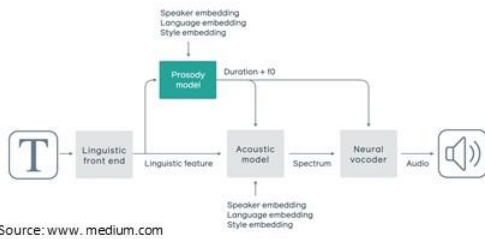


Source: Carr, Caleb T. (2021) Computer-Mediated Communication A Theoretical and Practical Introduction to Online Human Communication, U.K.: Rowman & Littlefield.



The way we interact with and derive benefits from computers can be influenced by various communicative elements including their appearance, their behavior and their conversational style. The language and interaction style by computer programs can influence a person's thoughts, feelings and behaviors particularly in terms of how human the program is perceived by the user. One way to enhance a computer's perceived humanity is to modify its language. Caleb Carr has referred to a study by Walther and colleagues conducted in 2011. In this study, participants were asked to give input about certain stories about their outgoing experiences and they received feedback assessing their extroversion either from a computer analysis of their word choice or from a graduate psychology student.

Interestingly, both feedback forms were generated by a computer and provided identical feedback. The only difference was the naturalness and conversational tone of the feedback. When the feedback sounded more human like, it had a stronger impact on how participants mute themselves and therefore, making computer interactions closer to conversations with friends in terms of word choice and tone can increase the anthropomorphism of a computer program. Computers are increasingly capable of not only displaying text but also reading and speaking it, sometimes engaging in dialogues or interactions with users. The manner in which a computer communicates can significantly influence the perception of the computer as a social actor.



Source: www.medium.com

- Computers are increasingly capable of not only displaying text but also reading and speaking it, sometimes engaging in dialogues or interactions with users.
- The manner in which a computer communicates can significantly influence the perception of the computer as a social actor.

- Research by Lee (2010) demonstrated that individuals responded more positively and were more likely to conform to suggestions when the feedback was delivered using human speech rather than a voice-synthesizer program, even though the content was identical.
 - This study highlights that computers can influence actions and thoughts similarly to how friends do.



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The 2010 research by Lee demonstrates that individuals responded more positively and were more likely to conform to suggestions when the feedback was delivered using human speech rather than a voice synthesizer program even though the content was identical. This study highlights that computers can influence actions and thoughts similarly to how friends do. Recent examples include virtual assistants found on phones and smart speakers such as Siri, Google voice, Alexa and Google home where text interactions with these computer based social actors are becoming more human like impacting users perceptions and the nature of their interactions. The visual CASA is also significant. Research has also delved into how people interact with digital agents which are computer programs designed to mimic human like interactions.

Visual CASA

- Research has also delved into how people interact with digital agents, which are computer programs designed to mimic human-like interactions.
 - These agents are commonly encountered when chatting with supposed customer service representatives on websites.
 - While they often appear as human-like avatars, research shows that the more visually anthropomorphic an agent is, the more it is perceived as a credible and attractive social actor.
- This understanding explains the use of human-like representations in customer service interactions and why less human-like agents, like Microsoft's Office assistant "Clippit," have been less successful in engaging users.



Source: www.tenor.com



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These agents are commonly encountered when chatting with supposed customer service representatives on various websites. While they often appear as human like avatars, research shows that the more visually anthropomorphic an agent is, the more it is perceived as a credible and attractive social actor. This understanding explains the use of human like representations in customer service interactions and why less human like agents like Microsoft Office's assistant, Clippett have been less successful in engaging users. The behavior of a computer can significantly impact how individuals perceive it as a social actor and consequently their interactions with it. Drawing parallels from fictional depictions such as Mr. Data from Star Trek, human like robots in popular media like Alita or the Cylons in Battlestar Galactica are easier to interact with and personalize because they possess human like behavior and appearance. A computer technology continues to advance and computers become more human like in their looks, actions and interactions. It is increasingly likely that people will perceive them as social actors ultimately. The 2012 study by Krämer, Von der Pütten, and Eimler suggested the importance of investigating how computers physically behave and how individuals interpret these behaviors. Early findings indicate that people can interpret verbal and facial expressions from agents and robots influencing their perceptions and interactions.

Behavioral CASA

- Krämer, Von der Pütten, and Eimler (2012) suggest the importance of investigating how computers physically behave and how individuals interpret these behaviors.
- Early findings indicate that people can interpret verbal and facial expressions from agents and robots, influencing their perceptions and interactions.
- As technology evolves, nonverbal cues such as facial expressions, space, touch, and kinesics play a significant role in shaping our interactions with computers as social actors.
- While these interactions may be quite interpersonal, they are considered impersonal, since there's only one human participant interacting with technology.



Source: www.unite.ai

As technology evolves nonverbal cues such as facial expression, space, touch and kinetics play a significant role in shaping our interactions with computers as social actors. While these interactions may be quite interpersonal, they are considered impersonal since there is only one human participant interacting with technology. The impersonal approaches to CMC do not inherently mean that it cannot support socio-emotional or friendly relationships. Instead, these models and theories suggest that under certain conditions, online communication may not replicate the rich face to face exchanges which we have with friends and family. Media richness theory guides the

selection of specific online tools for strategic purposes, sometimes favoring lean mediums when a deep interpersonal connection is not needed.

Conclusion

- The impersonal approaches to CMC do not inherently mean that it cannot support socioemotional, friendly relationships.
 - Instead, these models and theories suggest that under certain conditions, online communication may not replicate the rich, face-to-face exchanges we have with friends and family.
- Media richness theory, guides the selection of specific online tools for strategic purposes, sometimes favoring lean mediums when a deep interpersonal connection is not needed.
- Earlier notions that online communication could never support interpersonal relationships, as suggested by CFO, have been largely discredited.



Source: www.sciencefriday.com



Earlier notions that online communication could never support interpersonal relationships as suggested by CFO have been largely discredited owing to the latest developments in the area of communication technology. Subsequent theories like MRT and CASA propose that communication may be impersonal depending on the specific tools used or when interacting with computer systems. Communication whether online or offline is not inherently impersonal or interpersonal, it depends on how individuals choose to communicate. In the next module, we shall discuss the theories of interpersonal communication. Thank you.