Digital Era and the Dialectics of In-person Communication and Virtual Communication

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Abstract:

As global companies expand and electronic communication advances, virtual teams comprising geographically dispersed knowledge workers are collaborating on various business projects, both short-term and long-term. However, communicating effectively across cultures while existing in a virtual team poses significant challenges. The absence of non-verbal cues in some virtual platforms and the use of artificial emoticons as substitutes for natural body language in others exacerbate these challenges. Therefore, it is crucial to closely examine the efficacy of virtual channels compared to traditional face-to-face communication methods. This study aims to investigate the effectiveness of computer-mediated communication, both synchronously and asynchronously, and its impact on participants across three distinct communication contexts: business, pedagogical, and social. The study seeks to determine whether virtual communication can fully replace traditional face-to-face interaction or if it requires a compromise on human aspects. The research also explores ways to enhance digital mediums to preserve the human connection found in face-to-face communication styles.

Keywords: Virtual Communication, Virtual teams, E-learning, Social-networking sites

Introduction:

The digital communication revolution has led to the rise of virtual teams comprising geographically

dispersed members collaborating on business projects, both short-term and long-term. These teams rely on electronic mediums and computer-mediated communication (CMC) to exchange information, ideas, and emotions in a virtual domain, commonly known as cyberspace. CMC, which encompasses various computer-based communication technologies, is gradually supplanting traditional face-to-face communication methods due to its ability to enhance information exchange in terms of scope, range, speed, and accessibility at a lower cost. Virtual communication occurs either synchronously, in real time through platforms like chat rooms or video conferencing, or asynchronously, allowing recipients to access information at their convenience, as seen in emails. Synchronous technologies facilitate immediate exchanges and responses, fostering real-time interactions, while asynchronous technologies enable a focus on message content without time constraints. This shift towards virtual communication underscores the importance of technology in enabling effective collaboration across distributed teams, transforming the way information is shared and interactions are conducted in modern business environments.

Research Methodology:

The study aims to evaluate the efficacy of computer-mediated communication (CMC) across both synchronous and asynchronous platforms and its impact on participants. To achieve this goal, three distinct communication styles are being investigated. The first segment focuses on organizational communication within the business realm, where virtual team members from diverse socio-cultural backgrounds engage through digital mediums. This section delves into the intricacies of formal business communication, analysing how virtual platforms facilitate interactions across global borders. Transitioning from the formalities of business, the study then examines semi-formal communication in educational settings. It explores whether virtual forums and e-learning platforms can effectively substitute traditional classroom environments. This shift in focus allows for an assessment of the potential of digital mediums in educational communication. Lastly, the study addresses informal

communication channels found in social networking sites, aiming to understand how virtual interactions on these platforms maintain or lack a personal touch. These three areas, each representing a unique communication context, form the core of the study's investigation into the effectiveness of CMC. The methodology employed to evaluate CMC effectiveness includes a combination of primary and secondary data sources. Primary data collection methods involve surveys, one-on-one interviews, and observational studies. Additionally, the study relies on existing research findings and insights from prominent researchers in the field to enrich its analysis. By thoroughly examining these communication contexts and employing a robust research methodology, the study endeavours to shed light on the strengths and limitations of computer-mediated communication, offering valuable insights for both academia and industry practitioners.

Virtual Communication and Business Teams:

Global trade and technological innovations have introduced radical changes in the work environment. Digitalization and cyberspace communication has enabled the dynamic allocation of people to projects based on expertise rather than location, organizations can more easily assign the most qualified people to appropriate projects without concern for the expense and wasted productivity caused by extensive travel or frequent relocation (Goldman, 2000; Vinija, 2003). These computer-mediated communication technologies increase the range and depth of information access and allow the allocation of greater expertise irrespective of topographical limitations. However, despite the proliferation of such potentially effective multicultural virtual teams, it has often been observed that "in practice, global teams do not create the value expected" (DiStefano & Maznevski, 2000; Daly, 1996). Some of the major challenges experienced by these virtual teams are of linguistic and cross-cultural barriers, delayed asynchronous communication due to dispersed time zones, technological malfunctioning, miscommunication, or breakdown of communication due to the lack of non-verbal cues, dearth of synergy and team cohesiveness and many related issues.

Time emerges as one of the very serious factors influencing virtual communication. The success of synchronous communications as in the case of video-conferencing or web-chat rooms depends greatly on the presence of all team members which entails great difficulty for people dispersed through different time zones. The spatio-temporal heterogeneity among the virtual members obstructs the presence of all at a scheduled time. Even pre-scheduled meetings cannot compensate the free and natural flows of communication prevailing among real teams sharing the same geographical existence. Asynchronous communication on the other hand, results in delayed responses since what may be the business hours for people residing on the west of Greenwich Meridian might not be the same for those on the east of it. E-mails being an excellent example of asynchronous communication are extensively used by virtual team members as it allows greater concentration upon the content. However, these asynchronous modes cannot substitute the normal 'give-and-take' of face-to-face communication (Warkentin, Sayeed and Hightower, 1997). Technology and technical innovations, supposed to be one of the merits to virtual communication often emerge as a problem. The team members not only need to be well informed about the usage of the electronic tools but also must possess certain knowledge to troubleshoot minor technical issues. Moreover, a sudden technical hazard brings the entire communication to a collapse. Although video-conferencing provides the communicators to visually experience each other, apart from seeing what the person looks like, the medium has limited value (Grosse, 2001). The highly conscious on-screen appearance with time-bound pre-decided agenda cannot really take the place of real-life interactions. Infrastructural issues also crops up at times which may demand the installation of dedicated services and thereby increase the cost to the organization. Current research suggests that virtual team failure is directly related to the difficulties of building trust, positive relationships across the boundaries of geographical distance, time zones, and cultural differences (Kimble et.al., 2001; Vinaja, 2003). Intercultural sensitivity becomes indispensable in order to reduce cross-cultural miscommunication, especially at non-verbal

and behavioural levels. People from different cultures may tend to misunderstand each other's behaviours or stereotype people from other countries and hence come to distrust one another (Dash, 2001; Alexander, 2000; Cascio, 2000). The American 'need for speed' and content oriented nature leading to 'sparse prose' e- mails collides with the Japanese concept of work ethic that expects careful crafting of responses and feels the idea of a written message devoid of nonverbal, social and grammar to be incomplete. (Lipnack and Stamps 1997; Khaitan 1999; Vinaja, 2003). Team cohesiveness is one of the necessary factors critical for the success which is rarely observed in a transnational team.

With the emergence of cyberspace communication there has been a sharing of greater expertise, wider accessibility and swifter responses leading to enhanced effectiveness and productivity which certainly render a competitive advantage to the virtual teams. However, multicultural issues that crop in as hindrances to virtual communication must be addressed in order to increase the efficacy of the purpose. Intercultural sensitivity, frequent informal communication exchange, using more than one communicational channel and building trust through greater exchange of professional as well as personal communication may redress the issues.

Virtual Communication and Pedagogy:

Pedagogy and pedagogical styles have been evolving since the Aristotelian age and theories on how should 'learners learn and teachers teach' have undergone several ramifications but none have been as revolutionary as what is called e-learning. "Every learner can, at his or her own choice of time and place, access a world of multimedia material…immediately the learner is unlocked from the shackles of fixed and rigid schedules, from physical limitations…and is released into an information world which react to his or her own pace of learning" (Benjamin, 1994; Salmon, 2000). All-time accessibility of information and learner-centric information sharing are the two unique qualities that

have led to the growing acceptance of e-learning courses among many foreign nations and India is also following the lead.

Nevertheless, when compared to traditional classroom interactions, online courses reveal certain serious challenges to learning. Firstly, it is the extreme heterogeneity of the learners in an online course which poses a challenge for the process of learning. Content development and presentation is done mainly in an asynchronous mode where the scope of addressing the problems faced is rare and often the cross-cultural semantic noise is hardly taken into consideration. The e-learning modules try to compensate these lacunae by developing on the content aspect but the digitalized display of information on screen robs off the interactive nature. The absence of peer groups hinders mutual learning processes and the dearth of an interactive space often give rise to a sense of isolation where the student emerges as the sole learner with no or very little social interface. "The sense of community that the student shares with his or her peers who, too, are engaging in the same lesson is lost, due to the absence of synchronous time and space – the definitive nature of virtual learning (Toles, 2009)." The lack of a teacher (or facilitator) to guide through the lesson and monitor the progress renders absolute 'academic autonomy' upon the learner which might at times pose as a threat to learning. Even if in some odd cases where there is a teacher-like figure to monitor students' progress, the very meagreness of their short-lived presence reduces them to a tertiary level. E-learners need to be more academically motivated to consistently maintain the impetus to learn even when not under any academic pressure; which is rare phenomenon among younger and less mature groups. Again, in certain doctrines (like scientific, radio- active and biological experiments) direct observation at initial level seems a necessity where implementation virtual modes might lead to serious consequences. Wahlestedt aptly delineates the dichotomy between face-to-face contexts and cyber stations by describing e-learning forums as 'learning places' rather than 'places for learning'. The final question which happens to emerge as a very fundamental issue is how much are we ready for a shift from the

traditional classrooms to a complete virtual learning pattern? With the present computer literacy rate of India and the condition of the public schools in most of the Indian suburbs, virtual learning tends to be a luxury dream to materialise.

However, choosing one of the learning modes over the other is not the aim of this study but rather the effort is to analyse the pros and cons of both the learning techniques and thereby attempt to draw in a happy rapprochement between the two so as to provide the learners with personal connection at personal convenience. A paradigm shift is observed with the incorporation of e-classrooms, webinar sessions and other virtual learning sessions into the traditional lecture giving pattern of classroom teaching which has not only added variety to the techniques of knowledge distribution but also have rendered the leaners with greater accessibility of information. Nevertheless, the need to provide information as per the learners' convenience of space and time remains an unanswered question.

Virtual Communication and Social Networking Sites:

The most predominating outcome of the advancement in the cyberspace domain is perhaps, the so-called social networking sites. These digital domains allow the development of informal social relationships among unacquainted (and even formerly acquainted) people of different socio-cultural set-ups on a virtual plane. The varied brands of social-networking sites and the immense population count in each one of them proves the all-pervasive nature of these sites which have attracted the young and the old alike. While some defend the networking sites as the antidote to alienation in today's individualistic world, others feel it to be the only resort to communicate with like-minded individuals. It is often opined that the anonymous nature of the virtual communities render the members the liberty to speak out their mind. Whatever is the case, how these networking sites affect out social identities needs a close analysis.

The virtual communities raise questions regarding our sense of identity. In order to be a member of the cyber domain, an individual needs to create an 'identifier'. While some individuals use their names or nicknames (viz. niki_1989@abc.com, nick4u@xyz.com etc.); others often attempt to define themselves with certain characteristic traits that he/she assumes to possess or aspires to possess (viz. charming_elina@abc.com, handsome.hunk@xyz.com). This leads to a sub-conscious fantasizing of self, resulting in a serious internal conflict and identity crisis. In the constant effort to obtain the desired characteristics, individuals tend to manifest artificially inculcated behavioural patterns. The individuals addicted to the virtual communities constantly use their conscious faculty for communication exchange via a print medium and as a consequence gradually begin to lose on their spontaneous verbal interface. The inability to participate in real-time face-to-face communication breeds a sense of isolation and desperation among the individuals. The much-celebrated anonymity of the digital world has its own drawbacks. It is the anonymous nature of the virtual communities that contributes towards the increase in cybercrimes and even those who would normally not indulge in the illegal activities; partake in piracy of intellectual property, recourse to pornography, illegal hacking, and other unlawful acts (Juston, 2001). Although some sites provide with the scope to upload pictographic information in the form of photographs and videos; the life and vibrancy of real-life communication is lost. A mere set of emoticons displaying a single emotion fails to replace the plethora of intricate and variegated non-verbal cues like paralinguistic features of tone and gestural insinuations of body language. These cues help regulate the flow of conversation, facilitate turn-taking, provide feedback, and convey subtle meanings (Warkentin, Sayeed, and Hightower, 1997). Due to the presence of large members, content cluttering is a common feature that aggravates delay in response so much so as that the trail of content and discussion theme is lost.

For better or worse, virtual communities play a predominant role in our lives. The mass popularity of virtual communication has led us to question the traditional theories of communication. The

communities enable estranged relationships to be revived and new social circles to be created. However, there is a necessity to keep one self-alarmed about the distinction between the virtual and the real. When creating virtual communities, computer scientists must contemplate and ponder over the manner and how members of the community will be able to interact. “The designers of the community have to first establish how individuals will exist and communicate, and then they have to devise a way to implement those decisions” (Western, 2001).

AI-based Communication and Face-to-Face Communication:

Face-to-face communication has been the cornerstone of human interaction for centuries, enabling nuanced exchanges of ideas, emotions, and intentions through verbal and non-verbal cues. However, recent developments in AI-based communication technologies are reshaping how people interact and collaborate. In recent years, AI-based communication tools have witnessed significant advancements, leveraging machine learning algorithms and natural language processing to facilitate human-like interactions. Chatbots, virtual assistants, and automated messaging systems are examples of AI tools that are transforming how individuals and businesses communicate. One of the key positives of AI-based communication is its scalability and efficiency. Unlike face-to-face interactions that are limited by physical proximity and time constraints, AI tools can engage with multiple users simultaneously, providing instant responses and support. This scalability is particularly advantageous in customer service settings, where AI-powered chat-bots can handle a large volume of inquiries efficiently without human intervention. Moreover, AI-based communication offers round-the-clock availability, allowing users to access information and services at their convenience. This 24/7 accessibility enhances customer satisfaction and reduces response times, leading to improved user experiences. Another positive aspect of AI-based communication is its ability to analyse vast amounts of data in

real-time. AI algorithms can process and interpret user inputs, preferences, and behaviour patterns to deliver personalized recommendations and responses. This level of personalization enhances engagement and fosters stronger connections between users and AI systems. Furthermore, AI-based communication tools can automate repetitive tasks, freeing up human resources to focus on more complex and strategic activities. This automation leads to increased productivity and cost savings for businesses, as AI systems can handle routine operations with speed and accuracy.

Despite these advantages, AI-based communication also presents several challenges and drawbacks compared to face-to-face interactions. One of the main concerns is the lack of emotional intelligence and empathy in AI systems. While AI tools can mimic human language and behaviour to some extent, they often struggle to interpret nuanced emotions, tone, and context accurately. This limitation can lead to misunderstandings and miscommunications, especially in sensitive or complex conversations where emotional cues play a significant role. In contrast, face-to-face communication allows individuals to convey emotions through facial expressions, body language, and vocal intonations, facilitating clearer and more empathetic interactions. Additionally, AI-based communication raises ethical considerations regarding privacy, data security, and algorithm biases. Users may be hesitant to share sensitive information or engage with AI systems that they perceive as intrusive or lacking transparency in how they handle data. Moreover, AI algorithms are susceptible to biases based on the data they are trained on, leading to potential discrimination or unfair treatment in decision-making processes. Addressing these ethical concerns is crucial to building trust and acceptance of AI-based communication technologies. Another challenge of AI-based communication is the risk of over-reliance on technology and reduced human interaction. Excessive use of AI tools for communication purposes may diminish interpersonal skills and hinder genuine human connections, especially in social or professional settings where face-to-face interactions are valuable for building rapport and trust. Furthermore, technical limitations and errors in AI systems can result

in unintended consequences or disruptions in communication flow. Users may encounter issues such as misinterpretation of inputs, system failures, or inability to handle complex queries, leading to frustration and dissatisfaction.

In conclusion, AI-based communication technologies offer numerous benefits in terms of scalability, efficiency, personalization, and automation. However, they also pose challenges related to emotional intelligence, ethical considerations, over-reliance on technology, and technical limitations compared to face-to-face communication. Finding a balance between AI-based communication and traditional face-to-face interactions is essential to harnessing the strengths of both approaches while mitigating their respective weaknesses. Integrating AI tools responsibly, emphasizing human oversight and intervention where necessary, and prioritizing ethical and user-centric design principles can enhance the effectiveness and acceptance of AI-based communication in diverse contexts.

Conclusion:

In today's global landscape, virtual communication has become a vital tool for transnational interactions and seamless information exchange. It provides the convenience, speed, and immediacy needed to connect individuals and organizations worldwide. Despite its efficiency, the personal touch and depth of face-to-face interactions remain desirable. It's crucial to recognize that every communication method has pros and cons, and efforts should focus on optimizing these tools for maximum effectiveness. Virtual communication, including platforms like video conferencing and instant messaging, has revolutionized collaboration by overcoming geographical barriers. This fosters collaboration, knowledge sharing, and innovation on a global scale. Its ability to convey information swiftly in real-time aids quick decision-making, especially in fast-paced industries. Additionally, virtual communication offers flexibility and accessibility, promoting work-life balance and accommodating diverse working styles. It reduces the need for extensive travel, leading to cost savings and environmental benefits. However, it also presents challenges, such as the lack of personal

connection and non-verbal cues inherent in face-to-face interactions. This can lead to misunderstandings and communication barriers. Moreover, virtual communication can sometimes feel impersonal and transactional, lacking the warmth of human interactions. Building rapport and trust may require additional effort in virtual environments. Despite these challenges, there's optimism about the future of virtual communication. Howard Rheingold believes that real-world communities will benefit from virtual communities' proliferation, complementing traditional channels and enhancing collaboration. Looking ahead, advancements in artificial intelligence, virtual reality, and augmented reality hold promise for immersive virtual experiences. These technologies can bridge the gap between virtual and physical interactions, creating more meaningful connections. In conclusion, virtual communication is indispensable in the globalized world, offering convenience and accessibility. Efforts should focus on leveraging its strengths while mitigating limitations to drive collaboration and innovation effectively.

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