African Journal of Social and Behavioural Sciences (AJSBS)
Volume 16, Number 3 (2026) ISSN: 2141-209X

DIGITAL TECHNOLOGY AND COMMUNICATION IN THE MODERN WORKPLACE: A CONCEPTUAL REVIEW

Zacheaus Olufunminiyi Olonade[1]*, Sarafadeen Abiodun Awotunde[2] & Adebayo Samson Odebode[3]

[1,2,3]Department of Employment Relations and Human Resource Management, Osun State University, Osogbo, Nigeria

*zaccheaus.olonade@uniosun.edu.ng

ABSTRACT: The rapid advancement of digital technology has significantly transformed communication practices in both personal and professional contexts. This article examined a conceptual review of digital technology and communication in modern workplace and analyzes how emerging technologies influence decision-making, organizational interaction, and global connectivity. It explores key digital communication tools including email, social media, instant messaging, and video conferencing and highlights their role in improving efficiency, collaboration, and accessibility within organizations. The study also discusses the growing influence of digital technologies on workplace practices such as remote work, knowledge sharing, and corporate communication strategies. Additionally, the article considers the role of artificial intelligence in enhancing human cognitive capabilities and facilitating data-driven communication processes. Despite these benefits, the paper addresses critical ethical challenges associated with technology-driven workplaces, including algorithmic bias, lack of transparency, privacy concerns, automation bias, and insufficient ethical oversight. The findings emphasize that while digital technologies have greatly enhanced communication and decision-making capabilities, organizations must implement responsible governance, ethical frameworks, and human oversight to ensure these technologies are used in ways that protect fairness, accountability, and human dignity in the digital age.

Keywords: Digital, Technology, Communication, Workplace

INTRODUCTION

In today's rapidly evolving business landscape, technology plays a pivotal role in shaping how decisions are made. From data analytics to artificial intelligence (AI), modern digital tools empower organisations to make faster, more informed, and often more objective decisions (Zhang, & Nie 2025). The integration of these technologies has significantly altered the decision-making process, impacting efficiency, accuracy, and strategy across various sectors. With the advent and subsequent massive growth of the Internet, human communication has changed fundamentally. Communication among people is now faster, cheaper, and, in many ways, easier with the support of digital technology. The Internet for communication has become a common tool in business, education, medicine, psychological counseling, and entertainment. It is a social force that has transformed how people communicate (Connolly 2024).

It might have social, psychological, and economic impacts on human life. Digital technology supporting computer-mediated and online-based communication can impact society in a few ways. Firstly, this type of technology may have effects on individuals' psychological development (Burrell, 2016). Secondly, it can provide people with a conducive environment and apply this tool to build social relationships, different types of networks, or enrich social capital. Thirdly, it can change communication models among people and alter public communication channels. Furthermore, it can impact the business model and job market. It can also be used as a tool to support learning and knowledge sharing. The important point is to understand clearly these impacts, because these matters affect quality of life both in the organisation and in a global context. This study examined a conceptual review of digital technology and communication in modern workplace and analyzes how emerging technologies influence decision-making, organisational interaction, and global connectivity.

LITERATURE REVIEW

The study adopted qualitative research approach. To aid future study, a rigorous conceptual review of the literature on digital communication its historical overview and the rise of digital communication tools, key digital tools with its impact on organizations was done. To assure data quality, the emphasis is on studies published in peer-reviewed academic journals. The majority of the review was conducted using publications from online library such as research gate, google scholar was undertaken to uncover relevant supplementary papers. Four keywords were chosen from the specified databases based on the literature. Such as digital, technology, communication and modern workplace.

Historical Overview of Communication

In a sense, modern digital technology may be seen to continue a series of "waves of the future" that, from antiquity on, have generally intersected with political as well as commercial service industries (Zuboff, 2019). The alphabet was a technological innovation performed to facilitate communications relating to property relations and transactions. Furthermore, contrary to the common assumption that nowadays an "information society" is taking place and that, accordingly, market economies have become more information-oriented, this "classical" era saw man communicate from calendar inscriptions to the Bible. Moreover, and most significantly, conjoint with this technology was a system of grammar and rhetoric that was a set of rules for producing certainties with words.

Archaeologists consider that a principal contributing factor in the site selection processes leading to the development of ancient Greek. Civilisation was ease with which ancient Greeks could communicate over water with their pan-Hellenic neighbors. They found it easier to do so than to communicate with their inland neighbors in the valleys. One of the most interesting innovations of antiquity was the telegraph invented in the 4th century B.C. Ideally employed to meet the Persians' gift of a pavement siege that was treasonous, this device converted some lifting pressure into physical motion transferred over building tops by a series of beacon light lanterns. In this case, this kind of old signal was modulated by binary information of a military or commercial nature, according to some unknown position in the city determined by correlation between the received

fireball heights, which would have had to appear homologous to a line-of-sight receiver on the other side of the wall (Burrell, 2016).

The Rise of Digital Communication

Recently, the term "digital communication" has become part of our daily vocabulary. Indeed, digital communication is growing at a breathtaking speed and has left even some communication professionals far behind. There are numerous companies that claim to use digital technology in order to enhance the quantity and quality of their communication outcomes with different publics. However, are we really ready for this digital revolution? What are the most noticeable differences between digital and traditional communication? And, more importantly, when dealing with business communication-related matters, can digital really replace traditional communication techniques and media? Although traditional communication techniques have always been supplemented with digital media, no comprehensive theory effectively encompasses the rise of digital communication in today's society. As far as we know, there is no negative aspect in digital communication, and we don't anticipate the emergence of such a thing in the near future.

It is quite the opposite: digital communication is on its way to fully substitute traditional communication in our daily lives. In general terms, it has been shown to be easier; there are no space or time limitations, it is painless, and sometimes more creative. However, we should be astonished by the number of books under the title "Digital Communication" that still don't take a global approach to their whole scope. Our aim in this paper is to present what we think are the most noticeable differences between communication and digital communication, and to propose a more encompassing view of digital communication. We think that a global approach and an insightful understanding of the aforementioned differences are important to avoid misunderstandings about the power and potential of information and communication technologies.

Key Digital Communication Tools

As mentioned, a vast range of digital communication tools is available. These tools have the potential to make communication between and within project teams more effective, efficient, transparent, and accurate, provided that they are used appropriately for the nature of the task and the preferences of the communicator. Several key digital communication tools are likely to be relevant to project managers and their teams. Social networks are platforms that allow users to create a profile and share information, ideas, and messages with other registered users, who can be linked to each other by the type of connections. Many social networks offer groups of interest that can be joined. Social collaboration tools are applications that allow for the sharing of knowledge, information, and feedback among team members who are committed to sharing best practices, communication, and expertise. Team collaboration software is software that enables and manages a collective enterprise project or task involving multiple participants. It allows for multiple users to access shared content on the Internet and databases that can later be exchanged between a company and its users or systems that are used for the storage and retrieval of knowledge. The combination of user-friendly interfaces and ease of use greatly lowers the technical expertise needed to query a system, using the platform as a regular communication tool among employees.

Email

The Nature of Email has its roots in the late 1970s and early 1980s, making it one of the original internet communication tools. For many people, it has remained an essential element of online existence, and it has only recently faced serious competition from the web and wireless communication technology. Until the late 1990s, email was the dominant form of communication advanced countries like the United States, receiving the lion's share of press coverage, growth in usage, money, and advertising revenue. The primary commercial use of the internet was email communications, not the web, e-commerce, or databases. In the corporate world, email was the glue that held the organisation together, and it was one of the earliest forms of groupware, or software to improve group communications and work. The growth of web-based email, however, has revolutionized the popular conception of the nature of electronic communications. There are now over 100 million users worldwide, and it is growing about four times as quickly as computer-based email. By easy subscription to a free service, users can have their own personal email address and access it from any computer connected to the Internet. They can also have multiple accounts, have email threads, create distribution lists, interact with their other online friends and networks, send attachments, use address books and calendars, and keep their mail and contact lists, all without any potential adverse impact on the computer they are using. They are also not plagued by the complexities of backing up email messages, creating mail rules, and administering user accounts.

Social Media

An increasingly popular segment of the digital communication spectrum is social media, which is essentially virtual interaction between people. Contents and contacts of seemingly unlimited numbers and combinations are engaged in messages, personal and multimedia sharing and perusing, and more, at times promoting terms such as "new, fun, service, power, participatory, and social," with ramifications for social, economic, and political areas. Social media, which is dynamic, with new features, channels, and users as well as departing ones emerging constantly, can be accessed from either fixed or mobile devices, 24/7, for those with access. Therefore, their usage and revenues are enormous and constantly growing, and users are correspondingly diverse, their habits and exchange quantities irreversibly becoming increasingly impulsive. In social media, the strength of personal messages continues even as public postings increase due to the relatively well-controlled environment that accounts provide for sharing news and information with small groups and with various specialized communication sites that offer, through a linked economy among users with diverse interests from every corner of the world, the electronic public commons that people need for a modern version of the Greek agora. The technology supporting social media and collaboration has changed, from hardware-focused and centralized applications to software developments focusing on user-friendly browser-based applications that are accessible from both stationary and mobile devices, as well as system outsourcing from traditional corporate servers.

Instant Messaging

Instant messaging (IM) is a direct form of communication that can take place in real time over the Internet through the exchange of text messages. Though IM has been used for a relatively short period of time in comparison to other communication technologies, its prevalence among computer

users is truly astonishing. There is evidence that real-time communication systems (such as IM) profoundly affect the nature of communicative practices. Similar to text messaging, the proliferation of IM among teens is driven by a number of factors, including the relatively low cost, instant connectivity, control over the communication channel, and added privacy. To many users, the benefits of IM outweigh the negative aspects: ignoring unwanted requests and dealing directly with the messages received. About 600 million people use IM worldwide, with an overwhelming increase predicted in the use of IM by corporate employees by 2030. Indeed, the dramatic rise in IM use has led to the perception of IM as evolving into a separate online world that functions largely independent of email. With the advent of IM, we witness the creation of an allied text-based communication format that has been integrated into an array of social settings that is unprecedented in the history of contemporary computer-mediated communication.

Video Conferencing

In the digital communication age, video conferencing is quickly becoming part of the daily business routine. With new inexpensive technology, there are few reasons for businesses not to have the capability. Video conferencing serves several purposes, including reducing travel time, stress, and costs. Even more important, video conferencing can be used as a substitute for in-person meetings and other modes of communication. These meetings are now more efficient and effective as well. In the past, when attempting to discuss possibly complicated or controversial issues, there may have been misunderstandings about the other party's stance or a misunderstanding about the comments and intent of your business. Today's new age video conferencing is real-time and can provide an almost in-person interaction. In this way, video conferencing can develop relationships faster, resulting in quicker conflict resolutions if they arise. All in all, relationships can also develop intimacy, humor, and sarcasm, which can be lost with just traditional email communication.

Impact of Digital Technology on Personal Communication

Another more profound effect of the digital technology revolution on personal communication is the shift from email to instant messaging for certain types of communication. Instant messaging interfaces are perceived as more immediate and conversional, and they can foster communication, remove barriers, and help develop corporate culture quickly. As a result, employees can reach their colleagues more quickly through instant messaging than through email. But the immediacy of instant messaging comes at a price, which is that employees find that they are getting "interrupted" by instant messaging messages and displays about a third of the time, or as frequently as every three minutes. The computerized community at work – instant messaging and chat sessions – and in the home – chat sessions facilitated by various platforms, is replacing or at least rivaling the telephone in significance. With computerized communities, you can remain invisible, avoid a drop-in visit, participate in the conversations of a small target, and avoid an inconvenient phone call that could turn into a long pause heaving with trapped sighs, busy tones, and high-pressure close. Moreover, each of these new forms of communication, by being computer recordable, becomes another lion in the already populous jungle of genuine and possible legal discovery in personal injury and employee litigation. In response to these problems, managers urged caution and the imparting of dos and don'ts for many of these digital technologies, warning that their unrestricted use is subject to abuse and that the new real-time communications channels become "destructive communication

tools" when personnel take advantage of their friendly, non-hierarchical aura and distribute information the company deems confidential.

Impact of Digital Technology on Professional Communication

The effect of digital technology on professional communication has been dramatic and pervasive. The digital tools that help personalize many aspects of individual and multiple send-and-receive computer-mediated communication have also become features of many types of professional communication. Memos, proposals, reports, letters, email, web pages, and multimedia slide shows can be personalized and improved by using digital technology. In all types of professional communication, digital technology has simplified, enhanced, sped up, reduced costs, made communication more direct, and increased the number of choices in communication tasks. Email and other digital methods of communication are considered by many businesses not as communication alternatives but as value-added features that enhance the other strengths of technological delivery (Floridi, et al., 2018).

Professional communication continues to change as rapidly as the technology that supports it. Emerging forms of digital communication and new types of work in the virtual job have altered the rules of communication and the expectations for professional communicators. The strategic use of digital technology in professional communication requires that senders and receivers be aware of the possibilities, limitations, challenges, and emerging opportunities presented by new developments. Using technology for technology's sake improves neither the selection of business message content nor the communication product. Senders should focus on meeting the business's communication needs, not on using the latest digital communication device just because they can. By mastering the strategies encouraged by the level of technology now available, they can help their messages and their careers stand above the masses at the entry level.

Remote Work and Collaboration

One of the biggest changes in work habits that has emerged from the increasing use of digital technology is an increase in remote work. The development of digital technology has not only made remote work possible, but the affordability of digital devices has made remote work easier. Employees can connect to their office using not only their personal computers but also smartphones and tablet computers, making remote work possible anytime and anywhere. In addition, the development of public infrastructure has made it easier to connect to the internet, and hence easier to engage in remote work. In addition to remote work, collaboration across individuals in different organizations has also become possible. A world in which people from different organizations can communicate online has become a reality. There is no doubt that this capability facilitates ways of working and collaborating that were not possible in an age when communications were limited to those within a physically specific place (Floridi et al., 2018).

Corporate Communication Strategies

The transformation of society into a knowledge-based society has affected for-profit organizations. In recent years, different social and academic studies have investigated particular aspects of

corporate knowledge management. In parallel to this, the increased utilization of digital technology in corporations has led to perceived changes in the communication expertise of their members. This increased digital communication has affected the structure, processes, and corporate activities, and, in many ways, has raised corporations' communication requirements to new levels. The achievement of communication goals requires a convergence of technology, organizational culture, and human behavior, which leads to a new way of integrating knowledge to construct effective strategies. E-business is the use of internet technology to facilitate doing business between suppliers, between a company and customers, and to aid many business functions. Traditionally, a company's website provided information about the company and its products and services, career opportunities, customer service feedback, investor relations information, and additional comprehensive company details to the world. Nowadays, the website can serve as a channel of communication to people and systems residing in different simultaneous time zones and provide access to a company for its customers, partners, and suppliers so they can take direct advantage of the company's offerings through the delivery of digital products and the facilitation of rapid financial transactions.

The Role of Digital Technology in Global Communication

While global communication has become far more accessible than it was only a few years ago, even the latest mobile communication device can at best facilitate interaction in just a few languages. Digital technology itself, therefore, is fundamentally limited. Nevertheless, the fact that digital technology has now reached the point of providing real-time interaction, in spoken forms, across the airwaves, between any two people in any two locations in the world regardless of the distance between them, has thrown into sharp focus aspects of global communication that are felt to be solutions to the majority of the world's perceived communication problems. On the other hand, it has also highlighted highly contrasting opinions concerning the usefulness of this resource and the issues that still need to be addressed by its users if it is to become an equitable means of global communication.

Global communication was once regarded largely as the exchange of postal information in writing; then as the exchange of information over the world's airwaves and lastly as the possibility of viewing each other across the airwaves at the same time as speaking. It is no longer any of these things, but all of them together, and a great deal more besides. In this constant evolution, global communication can still be largely characterized as 'digital technology meets something else: mail, telephone and more recently a combination of telephone and a primitive written format for electronic mail. However, the combination of a great many statistics to represent the maiden forms of global communication provides very little indication of the novelty value of the newer forms of interaction. Despite these very real advances, it is time to question whether the use of technology to overcome the barriers to equitable global communication has indeed helped to redress the balance, or simply emphasized the need for more fundamental change.

Artificial Intelligence in Communication

When we think about artificial intelligence, we might think about robots that are as intelligent as humans or even more so. While it is true that some research in AI focuses on building clever

mechanisms that can learn, reason, and solve problems, this view of AI is but a subset of a much larger picture. In fact, much of the time, we humans are quite happy with our own intelligence and are mainly interested in using artificial intelligence as an aid. This is the most promising and useful part of AI. Rather than replacing people's intelligence or making things smart, this broader AI technology seeks to enhance people's cognitive abilities (Zhang & Nie, 2025).

The idea of using AI to enhance people's cognitive abilities is much more recent and less familiar. Even so, it is already a core part of modern society. For example, search engines use AI to help people find the information they are seeking, and machine learning is used to create filters that sort our email from spam and elevate the most gossip-worthy stories to the top of our news feeds. AI is also widely used in data analysis, filling out forms, and managing our smartphones. Such technology is now relatively cheap due to a combination of favorable economics and advances in methods and infrastructure. Yet it is often underappreciated because it has become so routine. Thanks to digital communications technology, the outputs of AI can easily be disseminated, shared, and further collaborated upon.

Ethical Concerns in Technological Driven Workplace

The integration of digital technologies particularly artificial intelligence (AI), machine learning, and big data into decision-making processes has introduced both efficiencies and complexities (Mehrabi et al., 2021). While these technologies offer improved speed, precision, and data-driven insights, they also raise significant ethical concerns. The key point about the human/machine relationship is that the digital machine is only as good as the information fed to it, and humans are the source of that wisdom. The important question in digital communications then devolves into asking ourselves whether we are capable of acting in a compassionate way in our digital dealings. However, below are the major ethical issues associated with technology-driven workplace:

Bias and Discrimination

Algorithms often inherit biases from the data they are trained on. If historical data reflects societal prejudices (e.g., racial, gender, or socioeconomic bias), these biases can be perpetuated or even amplified by automated systems. For example, facial recognition systems and hiring algorithms have been shown to discriminate against minority groups.

Lack of Transparency and Accountability

Many AI systems operate as "black boxes," making it difficult to understand how decisions are made. This raises questions about accountability when decisions lead to negative outcomes. Example**:** In healthcare, if an AI denies a patient treatment and the reasoning is not explainable, it becomes difficult to challenge the decision or hold anyone accountable (Burrell, 2016).

Erosion of Human Agency

Excessive reliance on automated systems can lead to "automation bias," where humans defer judgment to machines even when errors are apparent. Example**:** In aviation, overreliance on

autopilot systems has contributed to crashes where pilots failed to override faulty automated instructions (Cummings, 2004).

Privacy and Surveillance

Digital decision-making often depends on massive data collection, which can infringe on individual privacy and result in surveillance overreach. For example**,** predictive policing tools use historical crime data to forecast future crimes, often disproportionately targeting marginalized communities. (Zuboff, 2019).

Lack of Ethical Oversight

Many organizations deploy AI systems without sufficient ethical review or oversight, leading to unintended social harms. For example**,** tech companies may launch algorithms that prioritise engagement or profit without considering societal implications like mental health or misinformation. (Floridi, et al., 2018).

Conclusion

The field of communication, like other areas of our increasingly technological world, is being dramatically altered. As humans struggle to keep pace with incredible changes in the digital revolution, two things seem evident. First, a new type of technologically dominant digital society will emerge. Technology was once our creation, but we are quickly becoming products of technology. Second, we must learn how to harness our technology, both as individuals and within institutions, to reach societal and institutional objectives. Social critics have already proposed theoretical models for the effects of these technological alterations in human communication. Meanwhile, ethical concerns in technology-driven workplace are not merely technical challenges they are organisational issues that require multidisciplinary approaches. Transparent design, fair data practices, human oversight, and regulatory frameworks are essential to ensure that technological decisions uphold ethical standards and protect human dignity.

REFERENCES

Burrell, J. (2016). "How the machine 'thinks': Understanding opacity in machine learning algorithms." *Big Data & Society, 3*(1), 1–12.

Cummings, M. L. (2004). "Automation bias in intelligent time-critical decision support systems." *AIAA 1st Intelligent Systems Technical Conference*. DOI: 10.2514/6.2004-6313

Connolly, M. (2024). The impact of digital media on communication: Unveiling positive effects on student interaction. *Learning Mole*. Retrieved from https://learningmole.com/the-impact-of-digital-media-on-communication/

Csaszar, F. A., Ketkar, H., & Kim, H. (2024). Artificial intelligence and strategic decision-making: Evidence from entrepreneurs and investors. *arXiv*. Retrieved from https://arxiv.org/abs/2408.08811

Dietvorst, B. J., Simmons, J. P., & Massey, C. (2015). Algorithm aversion: People erroneously avoid algorithms after seeing them err. *Journal of Experimental Psychology: General*. Retrieved from https://en.wikipedia.org/wiki/Algorithm_aversion

Faustyna. (2024). The impact of digital communication technology on education in the post-crisis period of the Covid-19 pandemic. *Journal of Communication in Scientific Inquiry,5*(1), 15–23. Retrieved from https://ejournal.unimap.edu.my/index.php/jcsi/article/view/1087

Floridi, L., Cowls, J., et al. (2018). "AI4People—An Ethical Framework for a Good AI Society." *Minds and Machines, 28*, 689–707. DOI: 10.1007/s11023-018-9482-5

Iddrisu, I., & Fuseini, I. (2025). The impact of digital technologies on public service delivery: the role of organizational structures and decision-making. *International Journal of Organizational Analysis*. Retrieved from https://www.emerald.com/insight/content/doi/10.1108/IJOA-10-2024-4918/full/html

Taylor, J. (2023). Digital twins: The solution to better decision-making. *Forbes*. Retrieved from https://www.forbes.com/councils/forbesbusinesscouncil/2023/02/16/digital-twins-the-solution-to-better-decision-making/

Shahriar, H., & Habibul, B. M. (2024). Exploring the impact of digital tools on business communication. *International Journal of Applied Research in Business and Management, 5*(2). Retrieved from https://www.wr-publishing.org/ijarbm/ijarbm-volume-5-issue-2/exploring-the-impact-of-digital-tools-on-business-communication/

Mehrabi et al. (2021). "A Survey on Bias and Fairness in Machine Learning." *ACM Computing Surveys, 54*(6), 1-35. DOI: 10.1145/3457607

Zhang, R., & Nie, L. (2025). Enhancing citizen-government communication with AI: Evaluating the impact of AI-assisted interactions on communication quality and satisfaction. *arXiv*. Retrieved from https://arxiv.org/abs/2501.10715

Zuboff, S. (2019). *The Age of Surveillance Capitalism*. Public Affairs.