International Journal of Innovative Technologies in Social Science

e-ISSN: 2544-9435

Scholarly Publisher
RS Global Sp. z O.O.
ISNI: 0000 0004 8495 2390

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ARTICLE TITLE	APPLICATIONS OF ARTIFICIAL INTELLIGENCE IN THE FIELD OF MEDIA IN LIGHT OF COMMUNICATION THEORIES
ARTICLE INFO	Baghdad Bendida, Mokhter Benfetta, Ailas Mohamed, Reffas Noureddine, Kadi Khalfallah. (2025) Applications of Artificial Intelligence in The Field of Media in Light of Communication Theories. *International Journal of Innovative Technologies in Social Science*. 2(46). doi: 10.31435/ijitss.2(46).2025.3352
DOI	https://doi.org/10.31435/ijitss.2(46).2025.3352
RECEIVED	07 February 2025
ACCEPTED	25 April 2025
PUBLISHED	23 May 2025
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APPLICATIONS OF ARTIFICIAL INTELLIGENCE IN THE FIELD OF MEDIA IN LIGHT OF COMMUNICATION THEORIES

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ABSTRACT

This study explores the integration of artificial intelligence (AI) applications in the media sector through the lens of contemporary communication theories. Amid rapid technological advancements, particularly in the context of the Fourth Industrial Revolution, the media landscape is undergoing profound transformations. The research addresses the epistemological gap between classical theoretical paradigms and the dynamic reality imposed by AI-driven automation, data processing, and content generation. Adopting a descriptive-analytical methodology, this study highlights the limitations of existing media institutions, the underdeveloped infrastructure in the Arab world, and the insufficient training of journalists in AI tools. It also evaluates sociological implications through functionalist, neo-Marxist, and symbolic interactionist theories. The findings highlight the urgency of theoretical innovation, technological investment, and a unified digital culture responsive to ethical and communicative challenges.

KEYWORDS

Artificial Intelligence, Communication Theories, Journalism, Media Infrastructure, Sociological Paradigms, Technological Transformation

CITATION

Baghdad Bendida, Mokhter Benfetta, Ailas Mohamed, Reffas Noureddine, Kadi Khalfallah. (2025) Applications of Artificial Intelligence in The Field of Media in Light of Communication Theories. *International Journal of Innovative Technologies in Social Science*. 2(46). doi: 10.31435/ijitss.2(46).2025.3352

Introduction.

The emergence of the information age, which relies heavily on applications of artificial intelligence (AI), has paved the way for a new era in which the world must first invest in infrastructure to ensure a successful transition. One of the main barriers to integration into the postinformation era is entry into the fourth generation of technology. Consequently, artificial intelligence has become an urgent necessity, as it is utilised across all areas of modern life, from medicine to various technologies, and even within the humanities and social sciences. AI now possesses vast amounts of data and the ability to process and interact with it, offering exact responses to all inquiries. This capability has enabled it to surpass the human mind that created it in several aspects.

In media and communication, media institutions have increasingly come to rely on AI. There is growing concern about automation, which threatens various jobs that may eventually disappear and be replaced by new roles based on computing, neural networks, and artificial intelligence applications. Media institutions are currently integrating these intelligent applications into the media sector. Robots have begun to replace journalists, delivering news and ushering in a new era of journalism.

Major media companies invest in this domain, yielding greater returns through modern technologies. In contrast, media institutions that do not integrate these technologies into their operations are likely to face bankruptcy and closure. At the very least, they will fail to keep pace with the technological revolution and fall behind in the global landscape.

1. Problem Statement

Artificial intelligence applications in media require thorough clarification and interpretation of this media phenomenon through communication theories to achieve epistemological scientific objectivity. Such an approach distinguishes between theoretical or applied padding and genuine scientific insight. Most scientific research to date has focused predominantly on the statistical aspect, using tabulated data that fail to capture the human essence inherent in living phenomena. However, analytical approaches rely on interpretation and explanation, an aspect often neglected in applied research that tends to quantify phenomena, reducing them to numbers and thereby excluding the qualitative dimension.

Pioneers who have adopted theories to explain such phenomena have sought to establish analytical approaches that offer understanding and interpretation. Nonetheless, many studies have overlooked this crucial dimension, which is vital in addressing the central research question. Digitalisation has become a communicative culture within a new environment, operating primarily through digitised, inanimate objects that humans interact with daily.

Therefore, this study adopts two comprehensive theoretical frameworks: one that examines society from a macro-sociological perspective, offering a holistic and elevated interpretation, and another that focuses on micro-sociological units, providing insights into the smaller components of society by addressing everyday life and individual interactions within specific geographical spaces.

Thus, artificial intelligence applications in the media sector have become tangible and lived realities, imposing themselves as transformative forces in post-information societies. The current context necessitates critically focusing on these applications through theoretical socio-communicative readings. On this basis, the researcher poses the following problem statement:

To what extent do communication theories comprehend artificial intelligence applications in media?

Research Questions

- Do communication theories still possess the capacity to interpret and analyse the data and characteristics of phenomena in the age of artificial intelligence, or have they become outdated, necessitating the development of new ideologies compatible with these advancements?
- Does the media sector continuously require artificial intelligence applications for content production?
- Should media institutions prepare the necessary infrastructure to integrate artificial intelligence applications into their journalistic practices?
- To what extent do media practitioners benefit from artificial intelligence applications in their professional activities?
- Do Arab audiences question the credibility of news content produced or delivered via artificial intelligence technologies?

2. Methodology used in the study

This study adopts the descriptive-analytical method, which enables the use of socio-communicative theories to interpret and analyse the phenomenon through the key concepts and assumptions specific to each theory and to assess the degree to which these assumptions are validated in the current context.

3. Previous studies

A. First Study

Mai Mostafa, titled *Artificial Intelligence Technologies in Media – Reality and Future Developments: An Applied Study on Media Practitioners in Egyptian and Arab Media Institutions*

This study aims to explore the attitudes of media practitioners towards adopting and using artificial intelligence (AI) technologies and the impact of such use on journalism. It also attempts to foresee the future usage of AI tools by examining a convenience sample of 451 respondents, including 265 from Egyptian media institutions and 186 from various Arab media outlets across multiple departments, especially those related to the digital environment.

- The study revealed several key findings, including the following:
- The respondents were found to follow news related to artificial intelligence technologies at a high rate. This trend reflects the growing presence of AI within ongoing debates concerning its perceived benefits, potential risks, and continuously evolving capabilities.
- The respondents indicated that artificial intelligence technologies can simulate human behaviour in numerous media-related tasks.
- According to the respondents, the most prominent fields of AI application were ranked as follows:
- **First**, the marketing field;
- **Second,** the media field;
- Finally, we address the artistic and administrative domains.
- The topics in which AI technologies were most commonly utilised, according to the overall views of the respondents, were journalistic services such as weather forecasting, currency exchange rates, and gold prices, among others (Mai, 2022, pp. 1–74).

B. Second Study

Scott Berennen (2020) addressed the issue of inflated expectations regarding the use of artificial intelligence applications and argued that the notion that AI entirely replaces humans reflects a significant degree of arrogance. The study contended that such technology should instead be seen as a catalyst or an assistant in journalistic tasks. This dissertation focused on *technoshaphonia*, which refers to the fear of AI applications replacing human roles. The concept reveals a duality in AI usage where despite its advantages, there are ethical and cultural concerns and potential drawbacks.

C. Third Study

Mohammed Al-Abbari aimed to investigate the transformations in digital media practice brought about by artificial intelligence applications. The study explored how these applications have also influenced the content of messages delivered by Arab media. It contextualised these changes within the framework of the Fourth Industrial Revolution, which has significantly benefited media work through technologies such as cloud computing, data analytics, and augmented reality. Moreover, the study examined the use of robots to perform media tasks and the transition towards a new form of media (the *metaverse*).

The study outlined three potential future scenarios for media development:

- ✓ The optimistic scenario
- ✓ The stability scenario
- ✓ The pessimistic scenario

The findings indicated that the future of digital media would likely favour institutions utilising robots and intelligent programs to improve content quality, enhance operational efficiency, and increase revenues and profits. Accordingly, current media institutions must adapt to this new reality by updating their strategies and transitioning towards an intelligent media landscape.

The study also revealed a growing trend towards the digitalisation of newspapers and a shift towards global digital publishing, whereas television remains a bright viewing medium. The study recommended a shift in addressing challenges, advocating adaptation to the new global environment and encouraging institutions to prepare their infrastructure to rely on innovative technological solutions. These should focus on formal data analysis tools and the training of human resources, given that those who possess media technology hold the power to influence global populations (Al-Abbari, 2023, pp. 619–654).

D. Fourth Study

Dr. Basant Mohamed Atiya, titled: *The Extent of Media Professionals' Acceptance of Artificial Intelligence Applications in the Media Field: An Exploratory Study on a Sample of Communication Practitioners within the Framework of the Technology Acceptance Model (TAM)*

This study examined the degree to which communication practitioners in Egypt accept the use of artificial intelligence applications in the media field. It also sought to determine the relationships among perceived usefulness, ease of use, behavioural intentions, and familial and demographic variables such as gender, age, and income level.

The study employed a questionnaire with a purposive sample of 200 communication practitioners. In addition, the researcher conducted six focus group discussions with a deliberate sample of media professionals interested in AI applications across various media sectors. The study yielded several key findings:

- The results validated the Technology Acceptance Model (TAM), indicating a strong relationship between perceived ease of use, expected benefits and behavioural intentions to adopt AI in the media sector.
- The participants acknowledged the limitations of artificial intelligence capabilities in the media field. While AI can play a role in news reporting, it is unlikely to fulfil broader journalistic functions such as analysis, investigative journalism, and in-depth reporting. Thus, its role may be limited to tasks performed behind the camera.
- Furthermore, participants noted that integrating such technologies is not necessarily aimed at eliminating numerous jobs in the media sector, as is often assumed. Instead, AI allows media professionals to deliver more distinguished content by freeing time to address critical issues and creating new roles that previously did not exist.

2. Commentary on Previous Studies

A. Points of Similarity with the Present Study

Previous studies, such as the current research, share common ground in their efforts to explore the advantages and disadvantages of artificial intelligence in the media field.

- They emphasise the role of AI applications in supporting journalists in their professional practice, highlighting the need for media practitioners to undergo training and skills development in the technical competencies that assist them in performing their duties.
- These intelligent applications are acknowledged for their effectiveness in collecting data; however, their analysis capacity is limited, reinforcing the indispensability of human elements. Such functionality can be fully realised only through establishing appropriate infrastructure, which media institutions must adopt to keep pace with ongoing transformations.

B. Points of difference

The present study diverges from previous research that focused on paradigmatic and theoretical dimensions, specifically, whether existing communication theories can comprehend artificial intelligence. It seeks to uncover shortcomings through a sociocommunicative analytical approach to intelligent applications in the media field.

Unlike earlier works, this study evaluated the extent to which the assumptions of various theories hold in this context. The theory-driven analysis aims to compensate for identified gaps by introducing new concepts, hypotheses, and coverage models that offer a contemporary reading of the phenomenon in line with technological advancements. The study also stresses the need for new theories and paradigms aligning with current realities.

C. Benefits Drawn from Previous Studies

The current study has benefited from prior research in building upon their epistemological frameworks, thereby avoiding unscientific inclinations in analysis. The study maintains a scientific and objective approach grounded in communication theories, employing theoretical frameworks that interpret, analyse, and conceptualise the phenomenon within the context of media practice.

It contributes to understanding the extent to which media institutions employ intelligent applications in their operations, assesses the availability of technological infrastructure, and highlights the need to train journalists due to the rapid technological and digital advancements that have become indispensable in modern journalistic practice.

4. Definition of artificial intelligence applications

A. Terminological Definition

According to John McCarthy, an expert in computer science and intelligent systems engineering, artificial intelligence is defined as:

The science and engineering of making intelligent machines and brilliant computer programs. It is a method for making computers and the robots they control think intelligently, similar to human intelligence. Artificial intelligence is achieved by studying how the human brain thinks and decides, particularly during problem-solving, and using these findings to develop intelligent software and systems" (Al-Qusi, 2010).

B. Operational Definition

Operationally, artificial intelligence applications are based on preprogrammed algorithms designed to assist humans in performing strenuous tasks or to act as substitutes for human agents. These applications are characterised by exceptional capabilities, such as high-speed information retrieval and the ability to respond swiftly to queries, thereby saving human time and effort.

5. Origin of the term "artificial intelligence"

John McCarthy first proposed *artificial intelligence* during the Dartmouth College Conference in 1956. At this conference, he suggested the term to describe computers capable of performing functions typically associated with human cognition. Since its inception, AI has been recognised as a subfield of computer science concerned with executing tasks that require human-like intelligence.

Since 2015, the development of graphics processing units (GPUS), which allow faster, cheaper, and more powerful parallel processing, virtually unlimited data storage capacity and the continuous influx of data (such as images and financial transactions), has significantly accelerated the evolution of AI technologies.

According to the IDC Spending Guide Report, global spending on AI is projected to reach nearly one trillion dollars by 2030 (Mohamed, 2019, p. 19).

5.1 The Information Society and the Post-Information Society

The Fourth Industrial Revolution, which is currently reshaping the world, imposes an urgent need, particularly for developed nations, to reconsider their industrial strategies. These countries are compelled to reformulate their objectives to ensure the preservation of their global leadership in the coming years. The driving forces of comprehensive development are evolving owing to rapid technological advancements led by intelligent technologies such as the Internet of Things (Iot), artificial intelligence (AI), robotics, 3D printing, quantum computing, and bioengineering.

As a result, major industrial nations have begun adopting new strategies to maintain their competitive edge. Since the mid-1990s, the concept of the information society has become increasingly linked with technological developments within society, stemming from what is referred to as the "third wave," or the technological revolution.

Although the term was initially used to refer specifically to the liberalisation of all forms of communication, both hardware and software, its scope has gradually expanded. It now encompasses all dimensions of information-related technologies, including the tools for collecting, storing, circulating, retrieving, and analysing information.

Professor Klaus Schwab outlines several reasons why the Fourth Industrial Revolution differs fundamentally from previous ones and why its impacts are expected to exceed those of the first three industrial revolutions. These reasons include the following:

- **Speed**: Unlike previous industrial revolutions, which progressed at a linear and arithmetic pace, this revolution is advancing exponentially. An illustrative example is the iPhone, which Apple launched in 2007. By the end of 2015, over two billion smart devices had been distributed globally.
- **Scope and Depth**: This new revolution's influence is extensive and profound across all aspects of life. It affects societies, individuals, businesses, and governments. It is not merely a revolution that alters how things function; it fundamentally reshapes how we perceive ourselves and our relationship with the world.
- **Systemic Impact**: This revolution can potentially transform existing systems, both within and among nations, corporations, and society at large. As such, the world stands at the threshold of a new phase in human history, transitioning from the Information Society to what is increasingly being referred to as the Post-Information Society, or alternatively:
  - The Superintelligence Society**,**
  - The Machine-dominated Society**,**

- The artificial intelligence society**,**
- or the Cyber Society**.**

These terms attempt to briefly describe the nature of human life, despite the inherent difficulty in precisely predicting what that future will entail. At the very least, they point to the driving forces shaping this new era, the general characteristics that define it, and the diverse consequences that will arise.

6. Types of artificial intelligence

A. Narrow or weak artificial intelligence (narrow AI)

This form of artificial intelligence represents a limited and specific type of intelligence. Its task is to design machines that mimic human actions to perform well-defined functions within a specific environment. These machines can complete only one particular task and are not equipped to operate outside their programmed scope.

A prominent example is Deep Blue, the chess-playing robot developed by IBM, which famously defeated the world chess champion Garry Kasparov.

B. General artificial intelligence (AI)

This type of AI is designed to function at a level comparable to human intelligence. It enables machines to think, plan, and reason independently, similar to human beings. However, there is currently no practical example of this type in existence. Research in the field continues to focus on developing general AI, although achieving it is expected to require significant time, effort, and scientific advancement.

C. Super artificial intelligence (super AI)

Super AI is a hypothetical and furturistic form of artificial intelligence that surpasses human intelligence. It possesses the ability to think, make judgments, plan, make decisions, and solve complex problems with unmatched precision.

Scientists aim to replicate such capabilities through machine learning by developing systems with infinite artificial neural connections. However, this form of AI does not yet exist in the real world (Al-Bambawi, 2002, p. 1445).

7. Fields of artificial intelligence

Artificial intelligence encompasses a broad range of subfields. Below is an overview of some of the main areas within AI:

7.1 Machine Learning (ML)

Machine learning (ML) is a subfield of artificial intelligence in which software can learn or adapt similarly to human learning. ML generally analyses vast amounts of data to identify prevailing patterns, classify information, make predictions, and generate forecasts. This process often involves incorporating feedback mechanisms to improve accuracy over time (Al Saud, 2022, p. 147).

7.2 Deep Learning

Deep learning is based on developing algorithms that enable computers to learn how to perform complex tasks autonomously, tasks that require a deep understanding of data and how it functions. This area relies primarily on artificial neural networks, which evolve through multiple levels of nonlinear data processing. This multilayered structure explains the powerful performance and accuracy of deep learning systems.

7.3 Computer Vision

Computer vision is one of the scientific subfields concerned with enabling computers to achieve a high level of understanding from digital images or videos. The goal is to allow computers to comprehend the content of images and video materials similarly to how humans do to generate symbolic or digital information in the form of decision-making outputs.

7.4 Natural Language Processing (NLP)

NLP is a critical and indispensable component of artificial intelligence. It focuses on the interactions between computers and human languages, particularly how computers are programmed to process and analyse natural language data. NLP is essential for machine translation, sentiment analysis, and automated summarisation tasks.

7.5 Interaction with handwriting

This field involves applications that recognise handwritten text written on paper or on a digital screen. These technologies aim to enable machines to identify and interpret handwritten characters accurately, facilitating smoother human–computer interaction in tasks such as document scanning and signature verification.

7.6 Smart Robots

Intelligent robots are capable of performing a variety of tasks typically carried out by humans. They can sense environmental factors such as light, temperature, sound, and motion through specialised sensors. These robots can also learn from past experiences and adapt by drawing lessons from previous errors. This enables them to improve their performance over time, making them highly effective in dynamic environments.

7.7 Interaction with Spoken Audio

Some artificial intelligence systems are designed to listen to spoken language and interpret its meaning even in background noise, regional accents, or colloquial speech. These capabilities allow AI to process natural spoken interactions in real time, enhancing applications such as virtual assistants, automated transcription, and speech-controlled devices (Salem, 2021, pp. 17–18).

8. Applications of artificial intelligence in the media sector

Artificial intelligence has had a significant effect on users through various applications. For example:

- Facebook employs AI techniques to create personalised user experiences by analysing prior user behaviour and suggesting relevant content and advertisements.
- Instagram uses AI to identify and analyse visual content, allowing it to refine user interactions with multimedia.
- LinkedIn applies AI on a large scale to help users find suitable job opportunities on the basis of their profile information and activity feed.

These examples illustrate the extent to which organisations, marketers, and individuals interact daily with social media platforms that heavily rely on AI technologies for various social and commercial objectives. In addition, AI is widely used for brand promotion, contributing unlimited financial gains for institutions and social media companies (Al-Ghamidi, 2021, pp. 15–22).

Artificial intelligence is a relatively broad concept encompassing the various possibilities enabled by recent technological advancements from machine learning to natural language processing**.** News organisations can leverage AI to carry out various tasks in the journalistic production chain, including data detection, extraction, and verification; story and graphic generation; publishing; sorting, testing, and filtering priorities; and automated article tagging**.**

These systems offer numerous advantages, such as the ability to execute complex processes rapidly**,** rely on large volumes of data, and support journalistic routines through event alerts and draft text generation enhanced with contextual information. AI can also extend media coverage to previously uncovered or poorly covered areas (e.g., match results from minor sports clubs) and **improve real-time news coverage.**

Moreover, artificial intelligence can strengthen the relationship between media outlets and their audiences by providing them with personalised content on the basis of their location or preferences, among other criteria (Ahmed, 2022, p. 242).

9. Artificial Intelligence in Light of Communication Theories

The AI news anchor on Al Jazeera Mubasher once addressed the channel's female journalists, saying, *"If any of you would like to take emergency leave, I will gladly take your place."* This was one of the earliest public announcements signalling the beginning of the end for traditional media jobs. However, communication will remain indispensable, as it is a purely human trait.

While it is true that humans have developed artificial intelligence technologies that now execute their programmed functions across various fields, including industry, medicine, media, and architecture, with remarkable speed and precision, there is growing concern about how this intelligence should be directed to prevent it from evolving into a threat to human life. Just as AI can perform medical diagnostics and imaging more accurately than can humans to save lives, it could equally be used to deploy robots for targeted assassinations with high precision.

Even more alarming is the possibility that AI may eventually surpass the human intellect that created it not only in execution but also in independent reasoning. While automation and programming have indeed produced robots capable of replacing humans in many roles, which is theoretically promising, in practice, this could eliminate millions of jobs as AI systems become more widespread.

For example, in journalism, editors-in-chief may increasingly rely on AI-powered robots capable of drafting reports, articles, and investigative pieces with meticulous accuracy, complete with figures, data, and comprehensive analysis. These AI systems can imitate the style of any renowned journalist and write fluently in multiple languages. They can even perform the role of news anchors.

This trajectory seriously risks the future of journalism. However, halting this progression is unlikely, as multinational corporations actively invest in developing intelligent robots to reduce labour costs.

At this juncture, it is essential to revisit communication and sociological theories that intersect with the evolution of artificial intelligence and its growing influence on human communication. These theories provide critical frameworks for understanding how technology interacts with social structures, and they are necessary for interpreting and possibly redirecting AI paths within communicative practices.

9.1 Structural Functionalism Theory

Structural functionalism approaches the communicative system not as a mere substructure as perceived by the critical school but rather as a means of constructing life itself. This perspective gave rise to a new sociological specialisation at the time: the sociology of everyday life, which focuses on the quality and details of an individual's daily existence.

From this standpoint, mass media is considered one of the systems or structures that accompany and assist the individual in navigating everyday life. They do so through awareness-raising, entertainment, education, and the alleviation of stress, directives, and external impositions, ultimately aiming to create proactive and engaged members of society.

To fully comprehend this structure, it is necessary to understand the other subsystems that interact with the communicative subsystem, thus enabling a more straightforward interpretation of the communicative structure within the broader societal framework. Unlike some paradigms, the structural functionalist paradigm is primarily cognitive and epistemological, driven by positivist logic. It does not call for criticism as much as it demands scientific inquiry. Although abstract, it is deeply rooted in empirical investigation to uncover scientific truths and explain reality with objective analytical rigour.

The first generation of functionalist theorists, such as Émile Durkheim and Bronisław Malinowski, focused on understanding how societies maintain internal stability, explaining social cohesion and order. A notable example is Durkheim's concept of social solidarity, which seeks to clarify how social structures maintain harmony and balance. Structural functionalism views societies as tending toward disintegration unless cohesion is actively maintained. Societies are understood to consist of interconnected parts and equal components unified through shared values. These components perform their respective functions in solidarity, contributing to the preservation of order and social cohesion. This understanding gained prominence with the emergence of industrial societies.

According to Talcott Parsons, one of the key figures in the structural–functional approach and pioneering the synthesis of functionalism and structuralism, social structure is composed of multiple systems or subsystems, such as political, cultural, and media systems. Each system consists of various elements or roles, all of which work toward maintaining stability and equilibrium within society.

In this context, the media and communication systems significantly promote social structure by symbolically manipulating the public. This symbolic influence aligns public perception and behaviour with the dominant societal direction, thus preserving the system's continuity.

However, with the emergence of intelligent applications and digital technologies, media no longer serves solely the interests of the social structure. Instead, it has created a functional imbalance that favours multinational corporations. These corporations increasingly impose their agendas on the social structure, turning it into a subordinate system under their influence.

Television programmes and content on social media platforms are now shaped and directed by these corporations through strategic advertising, with the primary objective of exerting control over social structures. This shift hasundermined the functional integrity of media as a stabilising institution.

In response to this transformation, conflict theory emerged as a critical framework. It highlights the contradictions within the structural–functional paradigm and offers a new lens for analysing power dynamics and structural inequality in contemporary media systems.

9.2 Conflict Theory—The Neo-Marxist Perspective

As Karl Marx once stated, neo-Marxist conflict theory posits that capitalism inherently carries the seeds of its destruction. This assertion gained renewed credibility following the 2008 global economic crisis, when even the bourgeois elite began to recognise the unsustainability of unchecked capitalist expansion.

Since then, multinational corporations have intensified their global investments, relocating capital and reducing labour costs by shifting operations from one country to another, all in pursuit of maximum profit. This practice has increased unemployment, economic inequality, and financial instability.

These corporations have also strategically harnessed media and communication technologies in their expansive investments to achieve global dominance. They partially accomplished this by modifying the audience's role and transforming the public from active participants in the communication process into passive consumers of content designed to serve commercial and ideological interests.

The Frankfurt School theorists, although diverging from Marx's strict economic determinism and his call for a communist alternative, maintained a strong commitment to critical analysis of capitalism. One of their key contributions was the concept of reification (*Verdinglichung*), which describes how human relations and identities are objectified and dominated by capitalist structures.

Under this logic, the machine replaces the human, and the individual becomes an object acted upon rather than an agent of action within society. Multinational corporations have increasingly seized initiative from human agency, reducing individuals to mere consumers while enabling machines and automated systems to take over human tasks and responsibilities.

This shift, driven by artificial intelligence and advanced technologies, highlights the central tenet of conflict theory: power is unequally distributed, and the systems of communication and production are leveraged to sustain dominance by powerful capitalist institutions at the expense of the working majority. Under this paradigm, human beings are relegated outside history and increasingly stripped of agency. Artificial intelligence, as a rational instrument of optimisation, eliminates space for revolutionary actors in an age dominated by consumerism. The instrumental reason, which led humanity to invent computers and subsequently intelligent applications capable of processing vast datasets, now serves the interests of multinational corporations, unconcerned with the millions of unemployed individuals displaced by automation.

In the Kantian framework of rationalisation and instrumental reason, as critiqued by Jürgen Habermas, the working individual is no longer the central revolutionary force, as it was in the era of industrial societies. In this era, workers played a pivotal role in challenging capitalism and shaping history through the conflict between the bourgeoisie and the proletariat. This dynamic fuelled the rise of socialist models in many states.

However, in post-industrial consumer societies, the revolutionary actor has become passive, acted upon, rather than acting. The machine now serves bourgeois interests, transitioning from national capitalism to global capitalism, where multinational corporations wield control over global politics through a powerful triad of media, capital, and political influence.

With the advent of intelligent applications, the media concept has transformed into automated media, a space where humans are no longer central. Investments in AI applications have exceeded 43 billion USD, signalling a profound and deliberate shift towards a new digital paradigm grounded in artificial intelligence. This shift promises to save time and effort and offer exceptionally high efficiency, but it also risks further dehumanisation.

Even in television programming, entertainment has taken precedence over awareness, aiming to flatten the viewer's cognitive depth. On social media platforms, intelligent applications exploit user data for e-commerce. They further embed humans into a programmed, algorithmic ecosystem, rendering them increasingly passive, programmable, and ultimately ineffective as social actors.

9.3 Symbolic interactionism theory

Symbolic interactionism initially emerged as a response to Marxist critical theory, which was perceived in the United States as an ideological threat capable of replacing capitalism with socialism or communism. In such systems, control over the means of production, including the media, would fall under state authority and be directed to serve the communist regime. As a counterpoint, symbolic interactionism shifted attention away from large-scale structures and systems of power and instead focused on microlevel units such as family and peer groups.

This theory was developed in the 1930s by the American social psychologist George Herbert Mead, particularly in his seminal work *Mind, Self, and Society*. It is built upon the principle that the individual

constructs meaning through interaction with others and that each social encounter shapes a mental image of the self in the eyes of others.

The core concepts of symbolic interactionism include the following:

- ✓ Symbol
- ✓ Meaning
- ✓ Expectations
- ✓ Behaviour
- ✓ Roles
- ✓ Interaction

According to theory, words and language are symbolic representations, and their meanings are not fixed but are shaped by cultural and social context. For example, a single word may carry different meanings in different dialects across the Arab world. The word "barād" refers to the *refrigerator* in Syria, which refers to a *teapot* in Algeria. Although the term is the same, the referent changes on the basis of the local context, illustrating the theory's emphasis on symbols and signifiers (*dāl* and *madlūl*).

When a person greets another person, they operate on the basis of shared social expectations, expecting the other person to reciprocate. Through ongoing interaction, meanings become socially constructed and standardised within a specific cultural environment. Symbolic interactionism is therefore profoundly concerned with how individuals create, interpret, and negotiate meaning in everyday life. It is a theory that foregrounds individual agency, subjective meaning, and the social construction of reality. These are theories of social life that focus primarily on the individual and the meanings they convey to those around them through symbols, expressions, and actions. Symbolic interactionism lies in the relationship between the signifier and the signified. If we see a car, we all agree that it is a means of transportation. While specific sociological theories assert that society shapes the individual, symbolic interactionism holds the opposite view: individuals shape society. According to this perspective, society is essentially a set of symbolic meanings developed through the interaction of individuals, and these interactions construct the foundation for social life.

A significant obstacle emerges when this theory is applied to artificial intelligence applications. When communicating with AI via purely journalistic language, the system often fails to comprehend unless the input is adjusted, prompting it to respond differently. This indicates that we are still far from developing AI systems that can genuinely simulate the human mind, which is inherently complex and equipped with senses, emotions, and moodsthat vary moment by moment.

Thus, communication between humans and machines still faces considerable limitations. While neural networks may be able to imitate journalistic styles, they cannot replicate human subjectivity. Consequently, it is anticipated that traditional media may disappear within the next two decades and be replaced by automated systems, driven mainly by the need to reduce costs in media institutions.

Just as symbolic interaction among humans creates a shared culture, interaction via AI applications may also lead to a unified digital culture among people worldwide. We have already witnessed this on social media platforms, where content creation and intercultural influence generate new symbolic codes collectively agreed upon in our digital interactions.

In this environment, citizen journalism plays a role in shaping this emerging culture through user engagement. However, all of this occurs within commercial exploitation dominated by major corporations that harness digital interactions for their interests.

As members of social media platforms, commercial motives increasingly drive the creation and standardisation of our culture. Influencers, who profit substantially from their online presence, are often exploited to numb audiences and commodify their roles. Today, corporations favour influencers over traditional opinion leaders in mass media, turning digital culture into a mechanism for controlling and managing public opinion.

Thus, we are witnessing the transformation of audiences into followers of shallow personalities mislabelled "influencers," making it easier for global companies to govern collective behaviouranddirect mass audiences with unprecedented efficiency.

10. Outcomes

Based on the findings of this study, the following conclusions can be drawn:

1. Communication theories are insufficient to fully comprehend intelligent applications, highlighting the need for communication theorists to develop new concepts and assumptions that align with contemporary technological realities.

2. There is a gap among media institutions in adopting these technologies, reinforcing their competitive intensity.

3. Owing to the

4. Fourth Industrial Revolution, the infrastructure of the Arab world remains underdeveloped. Governments must prioritise the development of fifth-generation internet networks and acquire modern technologies in the media sector.

5. There is a shortage of technical personnel capable of operating and managing artificial intelligence applications in the media field.

6. Journalists suffer from a lack of adequate training in the use of available intelligent applications.

7. There is a shortage of research centers in the Arab world that specialise in AI-related technological fields, further widening the gap between the Global North and South.

8. Investment in media AI applications is very weak in the Arab world, which opens the door for foreign media to attract and influence Arab audiences.

Conclusions

The transition to the postinformation era has become an urgent necessity to safeguard societies against various threats, such as hacking, fake news dissemination through AI applications, and disinformation on social media platforms via the spread of malicious rumours. Modern technologies operate through rapid algorithmic languages, generating confusion and chaos at unprecedented speeds. Therefore, raising awareness about the responsible use of these technologies is more critical than ever, especially to confront extremist ideologies and information terrorism. Keeping pace with technological advancement requires strategic action, including the establishment of an Arab research centre dedicated to conducting technical studies in the field of artificial intelligence and media. Such an initiative would help unify regional efforts to prevent growing dangers that threaten societal stability. In an age of rapid technological progress, including the emergence of advanced surveillance servers that are difficult to detect, the urgency of proactive and coordinated action becomes increasingly apparent.

REFERENCES

1. Abdelrazek, M. M. (2022). Artificial intelligence technologies in media: Reality and future developments – An applied study on media practitioners in Egyptian media institutions.
2. Al Saud, S. (2022). Educational applications of artificial intelligence in social studies. *Journal of Scientific Research in Arts*, 3, 147.
3. Al-Bambawi, H. (2022). The role of artificial intelligence technologies and big data in enhancing the efficiency of digital marketing methods from the perspective of marketing experts. In *Proceedings of the 6th CIC International Media Conference: Challenges and Issues of Digital Age Media* (pp. 1445–1446).
4. Al-Ghabari, M. (2023). The role of artificial intelligence technologies in developing technical media. *Arab Journal of Media Research*, 43, 619–654.
5. Al-Qusi, A. J. (2010). Using artificial intelligence applications for the development of learning and education processes. *Al-Mansour Journal*, 14, 39.
6. Berennen, J. S., Howard, P. N., & Nielsen, R. K. (2020). What to expect when expecting robots: Futures, expectations, and pseudoartificial general intelligence in UK journalism. *Journalism*, 1–17.
7. Hussein, A. H. I. M. (2022). Employing artificial intelligence technologies in media work. *Journal of Media Studies*, 6(1), 241–242.
8. Khalifa, I. (2019). *The postinformation society: The impact of the Fourth Industrial Revolution on national security* (1st ed.). Cairo, Egypt: Al-Mustaqbal for Research and Advanced Studies.
9. Luger, G. (2009). *Artificial intelligence: Structures and strategies for complex problem solving* (6th ed.). Addison-Wesley Pearson Education.
10. Salem, D. F. (2021). The effectiveness of using artificial intelligence in social media from the perspective of media education students: Facebook as a model. *The Egyptian Journal of Public Opinion Research*, 20(3), 1–61.