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Ethical Dilemmas in Contemporary Media: Examining Emerging Technologies and their Impact on Credibility and Public Trust

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***Abstract*: Technological advances such as AI recommendations and automated technologies have shaped the media industry and changed production, distribution, consumption, and monetization of media products over time. While all these technological advances have contributed to increased efficiency and innovation in media, they have brought forth several ethical issues such as transparency and invasion of privacy. This research attempts to answer the ethical questions raised by technological innovations in journalism, films, advertisements, and digital communication. Methodologically, the research employs qualitative content analysis and case study research. Data collection procedures included use of desktop research techniques through literature review, policy review, industry reports, and media case studies. Analysis concentrated on the identification and interpretation of recurring ethical issues in selected case studies involving artificial intelligence content creation, algorithmic processing, deepfakes technology, and facial recognition. This paper reveals six major ethical issues: transparency and disclosure; privacy and surveillance; algorithmic bias and discrimination; misinformation and synthetic media; accountability and governance; and consent and digital personhood. Analysis suggests that emerging media technologies have disrupted the traditional concepts of truth, authorship, editorial responsibilities, and media accountability and hence exposed weaknesses in ethical and regulatory approaches for such innovations. The current research concludes that media ethics should be revised to accommodate algorithmically-mediated media communication processes. It is recommended that there be mandatory disclosure of artificial intelligence-generated content, increased human editorial control, ethical artificial intelligence audits, updated media ethics codes, deployment of deepfake detection technologies, improved digital media literacy, and development of multi-stakeholder regulatory frameworks for emerging media technologies.**

***Keywords*: Media ethics, artificial intelligence, algorithmic governance, deepfakes, surveillance, accountability, digital personhood and transparency.**

1. Introduction

The rapid development of new technologies such as artificial intelligence, deepfakes, recommendation engines, face recognition technology, and automation in journalism has transformed the media landscape and redefined how media is produced, distributed, consumed, and monetized in global communication systems. Technologies have brought unprecedented efficiencies, personalization, scalability, and innovation in journalism, filmmaking, advertising, and digital communications. However, new media technologies do not develop in isolation from each other. In fact, according to media and technology studies, new media technologies are parts of large socio-technical systems that affect power relations, knowledge production, and ethics in modern media ecologies.

When it comes to surveillance capitalism, new technologies employ data harvesting, commoditization, and monetization as prerequisites for making predictive analysis and behavioral shaping possible (Zuboff, 2019). These technologies bring about numerous ethical concerns connected to privacy invasion, autonomy loss, and secret behavioral manipulation in cyberspace. Moreover, academic studies conducted in the sphere of platform governance show that algorithms can play an immense role in regulating information streams and impacting the process of public discourse formation beyond democratic control (Gillespie, 2018; Huang & Krafft, 2024). In this context, it is necessary to view current media platforms not as neutral intermediaries but as constructors of reality.

Moreover, the exploration of ethical issues in artificial intelligence highlights the fact that the implementation of automated and data-driven media infrastructures leads to the reinforcement and exacerbation of social inequalities due to the inclusion of algorithms biased towards discrimination and exclusion in the development of these infrastructures (Floridi et al., 2018; Jobin et al., 2019). In particular, the use of facial recognition has generated ethical concerns regarding surveillance, racial bias, consent, and biometric privacy.

The emergence of Generative AI alongside the creation of artificial content using the Deepfake method poses a threat to the very philosophical underpinnings of media practices by undermining the assumption of authenticity, authorship, and truth associated with it. Through the use of such media, it is possible to produce a significant amount of highly realistic but artificial content that can pose challenges to the dissemination of misinformation, disinformation, destruction of reputations, and opinion formation. Finally, the use of recommendation

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algorithms poses its own challenge in terms of its effect on public discourse and culture by promoting engagement, thus sensationalism, and polarized ideologies.

Given the rapid technological advancements of our time, it is also worth noting that the ethical challenges associated with media practices are increasingly complex and diffuse. While traditional ethical challenges in media practices were always centered around issues of journalistic and institutional responsibility, modern technology has introduced ethical challenges in which individual as well as institutional actors, such as journalists, media institutions, technology firms, platforms, programmers, and even algorithms, are involved. Traditional media ethics, which are founded on human judgment and institutionalized processes, face unprecedented challenges due to emerging issues from modern communication systems.

Based on the above discussion, this study investigates the ethical challenges in the domain of media with respect to technological developments through the application of qualitative content analysis and case study research. Specifically, this research endeavors to analyze the role played by the emergence of new technologies in the sphere of media in shaping the ethical responsibilities and professionalism in journalism, films, advertising, and digital media. In this connection, the main focus of this study lies in analyzing the conflict between technological development and ethics in relation to transparency, privacy, biases in algorithms, misinformation, accountability, and consent issues. Finally, this study places the above trends within the context of the debate on the evolution of media ethics.

A. Statement of the Problem

A number of the already established media ethics frameworks and codes are based on the assumptions of traditional forms of media communications that existed in analog and early digital media before the emergence of new technologies such as artificial intelligence, algorithmic filtering, synthetic media, biometrics, and automated decision-making systems. The fact is that many of the existing rules and codes of ethics that relate to media activities are not sufficient for solving ethical issues that appear in new data-driven media environments. Due to the rapid development of new technologies, the classical notions of truth, transparency, authorship, consent, privacy, etc., have to be reevaluated.

The researchers have highlighted that the normative approach that relies on human editorials and accountability in institutions is not useful in scenarios where there are automations and unclear infrastructural institutions that facilitate media communications (Floridi et al., 2018; Gillespie, 2018). The gap created by the mismatch has made it hard to keep up with technological development and manage its impact. Though researchers have started showing interest in artificial intelligence ethics and digital governance, there still exists a need for a holistic review of media organizations' response to emerging ethical issues in different industries in the media sector. It is with respect to this that the purpose of this paper lies in meeting the gap in the current media sector.

2. Literature Review

A. Media Ethics

Media ethics may be described as the guidelines, codes of practice, and ethics that make the process of producing, transmitting, and consuming media ethical and moral. These include the expectations regarding honesty, fairness, responsibility, objectivity, respect for privacy, public interest, and not inflicting unnecessary harm in the media industry. In terms of academic discipline, media ethics is concerned with the ethical duties and principles in relation to the processes conducted by individuals and organizations in media communication (Christians et al., 2020). The development of media ethics has been occasioned by the growing significance of journalism, broadcasting, and mass media in relation to ensuring accountability in media organizations and democracy.

Media ethics has historically drawn heavily on different normative ethical theories like deontology, utilitarianism, virtue ethics, and the social responsibility model of press. Deontology views ethical behavior as one that conforms to moral obligations and universal principles that include truthfulness and fairness regardless of the consequences. Journalism is particularly informed by this perspective in issues of truth, objectivity, and verification. On the other hand, utilitarianism evaluates any act of ethics in terms of its outcomes and recommends that one acts whenever there is social gain and social harm minimization (Mill, 1863/2001). Virtue ethics is focused on the personal character of the individual who makes ethical decisions and emphasizes virtues like integrity and courage during the decision-making process (Ward, 2019).

Among the most popular normative theories in media ethics is the Social Responsibility Theory of the Press, which was developed by the Hutchins Commission in 1947, and which was aimed at balancing the freedom of the media with its responsibility to serve the community by providing accurate and comprehensive coverage, diverse representation, and accountability to society. Such a theory has had a major impact on modern professional codes of ethics like those introduced by the Society of Professional Journalists, emphasizing truthfulness, independence, fairness, accountability, and minimizing harm. However, it should be mentioned that such normative theories have mostly been used in relation to media oriented towards humans and institutions and could not address all new ethical problems in digital media (Ward, 2018).

The emergence of digital media and platform communications has expanded the scope of media ethics beyond the newsroom and broadcasting environment to include platform governance, algorithms, user-generated content, and data mediated communication infrastructure. The digitalization process has been noted to disrupt the long-standing practice of journalistic gatekeeping by redistributing power from the editors to the platforms and individuals, thus blurring the lines between the producer, receiver, and the gatekeeper of media content (Couldry & Hepp, 2017).

Thus, academics have increasingly recognized the necessity of rethinking the issue of media ethics in light of digital and automated media. Ward (2018) proposes a framework of radical

media ethics, which means going beyond the professional sphere of journalism and including the entire globe of digital communicators along with people who create digital platforms and algorithms. In the same way, Couldry and Mejias (2019) argue that any ethical assessment of media must now take into account the political economy of data colonialism, whereby digital platforms commodify personal data and change the power dynamics among participants of digital media communication.

Ethical considerations in relation to algorithmic media come from the fact that they play an important role in the automation of the selection of information that is delivered to the users, hence affecting the democratic process, politics, and culture. As noted by Gillespie (2018), online digital platforms serve as custodians of the internet in their editorial functions, but lack any sense of ethical considerations. The recommendation made by the algorithms to increase engagement could end up being harmful, sensational, misleading, and extreme, which is unethical and could be dangerous for the society.

Questions pertaining to authorship, agency, and accountability re-emerge in connection with the ethical considerations surrounding artificial intelligence. These include, among others, the problematics associated with automated journalism, the use of computer-generated images in journalism, and the emergence of deepfake videos. For Floridi et al. (2018), the principle of transparency, explicability, fairness, and accountability form the basis of governance for AI and ensuring its human-centric nature. However, it is not easy to apply these principles to media ethics when it comes to machine learning technologies.

Moreover, the ethical concerns relating to privacy and surveillance are critical components of media studies in the contemporary world. Surveillance capitalism, as described by Zuboff (2019), involves the extraction and commodification of information concerning peoples actions for prediction and manipulation. This kind of practice poses various dangers such as the violation of informed consent, autonomy of people, exploitation, and commodification of experience. This problem is compounded by biometric and facial recognition technologies that make it possible to monitor the activities of individuals.

Even though the number of studies focusing on digital ethics and AI governance is increasing, the issue that still lacks coherence in this regard is the relationship between normative media ethics and the developing technological infrastructure. Normative guidelines and rules related to the ethics of journalism are not sensitive to the developments taking place in technology, making it ambiguous as to what duties the human and machine participants of the process should undertake. In this regard, modern academic literature has been emphasizing the importance of adopting a flexible approach to media ethics that takes into consideration both human and machine agents.

B. Emerging Technologies in Media

In the course of the twentieth and twenty-first centuries, the combination of communication and computing has led to the development of a process of innovation, cultural development, and society restructuring in which meaning-making by people has been completely reshaped. However, this integration has not occurred suddenly. Instead, it has taken place in stages over time from simple mechanical computing machines in the early modern period to today globally interconnected, algorithm-mediated communication systems. Thus, understanding current media systems must take into consideration their history within this process as well as the unique issues that they raise.

Of all the changes mentioned, artificial intelligence (AI) stands out as the most important transformation. AI involves the creation of computer programs that can do tasks normally requiring human intelligence, such as learning, reasoning, understanding natural languages, recognizing patterns, and making decisions autonomously (Diakopoulos, 2019; Gunkel, 2020). As far as application in media is concerned, the most potent type of AI is the generative AI. This is a process in which machines learn through training on data and prompts from users to produce new content, including texts, images, coding, audio, and video. The power of advanced conversational systems based on large language models is evident in the ability to write full documents and synthesize information in ways inconceivable for humans.

The most ethically contentious application of AI in media is deepfakes, which are created through generative adversarial networks. According to Kalpokas and Kalpokiene (2022), the algorithmic setting acts as an attention machine, where attention streams flow according to the priorities of those trying to make the most profit and political gains from them, something that is even more pronounced with the capability of deepfake technology to create incredibly realistic copies of real individuals. The existence of this kind of content in the social media environment run by engagement algorithms means that misinformation will be inevitable, and the truth will have no chance against emotional lies.

Another example of emerging media technology that raises certain ethical concerns is the algorithmic recommendation engine. Algorithmic recommendation engines have become integral to most of the existing digital platforms. The analysis of the users behavior enables the platform to provide customized content with the objective of increasing user engagement. While this increases the user experience, it brings about another ethical dilemma in relation to the phenomenon known as the echo chamber effect, which is created by algorithms providing information in a similar way without giving the full picture of what is going on. According to Gunkel (2020), ethical AI recognizes human values and puts them above others related to maximizing engagement with the use of platforms.

Another field of artificial intelligence which has significant implications for the media industry is natural language processing. Advancements in natural language processing technology have made it possible to create computer programs which can analyze, understand, and generate human language with a remarkable level of effectiveness. The ability to do so has formed the foundation of writing assistance software, summary generators, chatbots, and voice activated gadgets. These technologies have been incorporated by media firms in

order to automate the process of creating analysis related to finances, politics, and sports in numbers that cannot be achieved without artificial intelligence. While some argue that the automation of the media process will free up journalists from performing mundane tasks and enable them to engage in investigative journalism, others caution about the dangers of lack of transparency and journalistic integrity.

The advent of digital media channels has enabled the spread of such technologies within the global communications network. The era of digital convergence, where smartphones and tablets with internet capabilities were common, has allowed individuals to access different forms of media anytime and anywhere, thus altering the process of receiving news and social and cultural engagement with each other in society. Streaming services and social media have emerged as popular forms of delivering messages to the public instead of the traditional mediums of television and newspapers. This has empowered a few corporations with communicational powers over public discourse with quasi-editorial control.

On balance, innovations in media in the forms of artificial intelligence, generative media, deep fakes, recommendation algorithms, language processing and digital media platforms collectively amount to a paradigm shift in terms of how media is produced, distributed and regulated. The ethical issues raised by such technologies include concerns about misinformation, consent, manipulation and defamation, areas where existing legal frameworks are inadequate. Understanding the historical and contemporary dimensions of such technologies, therefore, is an important point of departure in analyzing media ethics in the digital era.

3. Ethical Theoretical Frameworks

A. Utilitarianism

Utilitarianism is the underlying foundation for this analysis and the utilization of the analysis on evaluating the research objectives. The primary worry will be on whether the ethical theories generate the highest amount of utility or generate the highest amount of happiness for the highest number of people. It is through the critical analysis of the media ethics gap that we will come to understand the invisible power behind digital information transmission. Historically, media houses have guaranteed maximum public welfare by being responsible up to the point where if any wrong information was provided, it could always be attributed to the mistake of one individual editor. Nevertheless, the employment of the opaque AI technology along with biometrics in the digital realm resulted in diffusing responsibility.

Another notion to be taken into account when creating the conceptual framework of the issue is surveillance capitalism. As pointed out by Shoshana Zuboff (2019) in her pioneering work, the economic model presupposes human experience as something available to exploit. By means of using user information, the system pressures the person in his/her actions thus causing privacy issues. When analyzing the advantages and disadvantages of utilitarianism, one should take into consideration the positive aspects of personalized content as well as the negative ones associated with pervasive surveillance. If there is exploitation of user information in the course of commercial activities, the maximization of utility of utilitarianism cannot exist anymore.

The other equally significant area in which ethics comes up is platform governance. As stated in the research conducted by Huang and Krafft (2024) and previously studied by Gillespie (2018), platforms are opaque reality curators that do not provide any democratic control. Algorithms are designed in such a way as to make sure that content that draws attention gets distributed in order to generate profits for only a select few companies. However, such a strategy results in significant damage to society.

From the use of the existing frameworks for AI ethics, it becomes evident that new technologies are a continuation of existing social biases embedded in digital structures. From Floridi's perspective (2018), artificial intelligence applications are morally indifferent as they analyze historical data and replicate historical inequalities. Consequently, if the objective is to offer the best experience to as many individuals as possible, discriminatory algorithms breach the utilitarianism principle and pose a threat to vulnerable populations in the name of science.

The paper discusses the areas of conflict between innovation in technology and ethical governance. Some of the main areas of conflict mentioned include lack of transparency, mass surveillance, algorithmic discrimination, spreading of misinformation, accountability problems, and infringement of consent for digital personhood. All these points illustrate the shift of responsibility from human beings to code, where specific technologies and their consequences are discussed. These technologies cannot be viewed as neutral. For instance, those who advocate for facial recognition say that it improves security; however, according to AI ethics research, among the main dangers of this technology are racial discrimination, violation of biometric privacy, and lack of informed consent resulting in great damage done. Another example of a technology under discussion is generative AI, which can be used efficiently in content creation. However, the threat of reputation damage and ability to manipulate public opinion is much higher than any benefits of using this technology by a narrow circle of content creators. When people are not sure if they hear authentic reports or fake news, democratic communication becomes impossible.

Truthfulness and sincerity are vital because they ensure that a community makes sound decisions based on knowledge. Besides being a threat to individuals, deepfakes jeopardize the credibility of all media channels through undermining the common understanding of reality. This study proposes a comprehensive approach towards addressing the problem, including not only immediate technological solutions like mandatory disclosure of the use of artificial intelligence, but also major reforms in global regulatory frameworks. From a utilitarian perspective, the above strategies are recommended because they promote social welfare. Mandatory disclosure and ethical AI audits promote transparency. Human oversight of editing brings back moral accountability in a machine-

unfriendly manner.

B. Deontological Ethics

In the face of emerging technologies, Immanuel Kant proposes a duty-based ethical framework grounded in reason. His categorical imperative requires individuals to act only according to principles that can be universalized (Kant, 1993). Dubbed Kantian deontology and duty-based ethics, his principle of humanity insists that individuals must always be treated as ends in themselves.

His supreme version states one can act only on a maxim that you can at the same time will to become a universal law (Christians, Fackler, & Kreshel, 2020). It is fair enough to make it clear that a maxim is a principle upon which everyone can agree. Do not plagiarize, for instance, could be considered a maxim to keep in the media professions; it should be universal (Kant, 1993). Kant's second formula, the formula of humanity, states, act so as to treat humanity in oneself and others only as an end in itself, and never merely as a means (Kant, 1993). You would certainly avoid treating others with whom you deal in your job in a way that you would not want to be treated yourself (Kant, 1993).

The universality in this paper means that applies to emerging technologies. This then begs the question; how will artificial intelligence and robotics implement Kant's main formulation of the categorical imperative only on that maxim through which you can at the same time will that it should become a universal law? It is easy to say at this stage that these technologies do not have a mind and will like human beings, but it is human beings who design these technologies and therefore, the rules set by man can be made to make these technologies conform.

A more comprehensive answer to the question above is given by Ulgen (2017), who argues that artificial intelligence and robotics do not possess human rational thinking capacity or a free will to be able to understand what constitutes a rule that is inherently desirable, doable, and valuable for it to be capable of universalisation. But there is human agency in the design, development, testing, and deployment of such technology so that responsibility for implementing the categorical imperative resides with humans. Humans determine which rules are programmed into the technology to ensure ethical use and moral conduct. For these rules to be capable of universalisation they must be public and shareable.

However, Kant's focus on the rational thinking capacity of humans relates to potential rather than actual possession of rationality, taking account of deficient rationality, immoral conduct, and situations where humans may deliberately act irrationally in order to gain some advantage over an opponent. That is to say that, where humans become irrational, machines may appear smarter. Technology may be deemed to have rational thinking capacity if it engages in a pattern of logical thinking from which it rationalises and takes action. Although Kants concept is specifically reserved for humans who can set up a system of rules governing moral conduct, a purely human endeavour and not one that can be mechanically produced, the capacity aspect may be fulfilled by artificial intelligence and robotics potential rather than actual rational thinking (Ulgen, 2017.

C. Virtue Ethics

In the modern world of artificial intelligence (AI), deepfakes, recommendation algorithms, facial recognition, and robots-journalists, virtue ethics appears to be a highly valuable approach, which allows understanding how technologies may be used to enhance or destroy the credibility of media companies and increase or decrease public trust towards them. Virtue ethics are based on Aristotles philosophical thoughts, and in this approach, the primary emphasis is made on the moral virtues of the people who are responsible for implementing innovations in our society rather than on the ethical nature of actions and their consequences. It is especially important when talking about media and communications because public trust should depend not only on the technological efficiency of tools used but also on the virtues of those who utilize them (Wyatt, 2008).

As far as credibility in media is concerned, virtue ethics places the responsibility on humans who interact with the technology. Even though advanced technologies are replacing human interactions and communication processes by automating the process, algorithms do not have any sense of morality and ethics. The reason why virtue ethics matters in such contexts is that it evaluates whether the humans managing the technologies possess the necessary virtues to be honest and transparent. As stated by Hagendorff (2020), there are a lot of discussions regarding AI ethics, but most of these discussions revolve around regulation, efficiency, and compliance while neglecting the ethical responsibilities of those who control technologies.

The link between the two gets clearer when we look at the case of journalism done by AI and news automation. As news automation technologies get better, it gives us the ability to develop news articles, develop headlines, summarize articles, and even provide recommendations without much input from people. Although such technologies make processes faster and give efficiency in news distribution, they also come with ethical concerns that could tarnish the image of media organizations through compromising the trust they enjoy from their consumers. Should the AI-powered technology provide any information that is false, misleading, and unverifiable, then the consumers would begin to doubt the veracity of the information given out by the news agencies and news organizations that use them. When it comes to virtue ethics, the problem here does not lie in the technology that newsrooms employ, but in the possession of prudence, truthfulness, responsibility, and editorial integrity by journalists and newsroom managers, and technology developers (Ward, 2018).

In addition, virtue ethics is another important aspect to consider when addressing ethical problems arising from the use of deepfake technology. This is because deepfake technology raises media-related ethical problems because it is possible for deepfake videos/images to appear very similar to the real ones. With the use of artificial intelligence (AI) technology, any person can be made to look like anyone else with a great deal of perfection. In essence, this technology can be used in

manipulation, spreading misinformation, and even political propaganda in many areas. While legislation may address many malicious uses of deepfake technology, virtue ethics maintains that media ethics requires the qualities of those developing the media. In this case, as indicated by Onebunne (2025), one of the main ethical problems with media developed through deepfake technology is that the developers/digital platforms lack some virtues like honesty and social responsibility. When these virtues are neglected, media loses its credibility among people in the society.

Similarly, recommendation algorithms used by digital platforms demonstrate how virtue ethics is linked to media credibility and reliability. Currently, recommendation algorithms have an increasingly important impact on the kind of information that people get online, what news and narratives become popular through digital communication platforms, and what does not. Nevertheless, in most cases, algorithms developed by digital platforms do not take into account public interest or democracy of the latter but try to increase user engagement and advertisement sales to be more profitable for the platforms. As a result, sensationalism, provocations, disinformation, and controversial content appear quite often since algorithms provide users with information that attracts their attention. In the context of virtue ethics, it should be noted that executives, technologists, and platform managers lack moral characters as virtues are not taken into account due to profit.

This problem stems from the consequences on the dynamics of the relationship between the audience and the media. In this case, there is an increasing perception by the public that technology such as digital media should not be viewed as informative and socially conscious but rather manipulative and profit-oriented. When emotional misinformation and divisive information is constantly being promoted through algorithms, the audience may begin to lose trust in the truthfulness of the media institution and its technology altogether. Therefore, according to virtue ethics, it is incumbent upon technology managers to foster cultures within their institutions ethically.

Virtue ethics can also be applied to facial recognition technologies and surveillance communication technologies. There has been widespread criticism regarding the discriminatory nature of facial recognition technologies as they perpetuate social, racial, and gender discrimination. Discrimination lowers confidence in the technological systems because the systems become discriminatory, exclusive, and socially irresponsible. The framework addresses such problems not only in terms of failures of the technologies but also as moral inadequacies of the people who developed the technologies. According to Craig and Yetter (2023), new technologies embody the moral values and beliefs of those who develop them. Thus, the credibility of media depends on the virtues of the technology developers.

4. Methodology

The research design chosen for this investigation was qualitative research. The selection of qualitative research design was considered necessary due to the need for an in-depth analysis of ethical dilemmas in media caused by technological advancements. It was assumed that the research questions posed needed interpretative examination rather than quantitative measurement. Ethical dilemmas linked to the use of artificial intelligence, deepfakes, algorithmic recommendation systems, facial recognition technology, and automated journalism are socially constructed and often require interpretation. As stated by Creswell and Poth (2018), qualitative research is appropriate for the examination of phenomena characterized by meaning-making and social construction.

In order to accomplish the stated research aims and objectives, qualitative content analysis coupled with case study methodology was used as the overall research design employed in conducting the study. Qualitative content analysis allowed for the systematic analysis and interpretation of text-based and document-based data related to the problem of ethical dilemmas involving emerging technologies of media. This research strategy was appropriate because the study was based on secondary data sources, specifically peer-reviewed journals, books, policy documents, media reports, regulation reports, and case studies of industries involved. Using this methodology, the researcher was able to classify and interpret thematic issues present in the selected data sets such as transparency, misinformation, privacy, algorithmic biases, surveillance, accountability, and consent. The identified themes were analyzed using theoretical concepts in media ethics and digital ethics literature.

To complement the content analysis, the research study employed the use of a case study approach to analyze actual cases that involve issues of ethical problems in the application of media technology. The case study approach was the most suitable to use in the research design since it enables one to examine phenomena in depth in the context of their real-world circumstances, thus giving one an insight into how ethical problems are played out in the real world of media (Yin, 2018). In conducting this research, cases were deliberately chosen from different areas of media practice that involved ethical problems brought about by technological development such as journalism, digital platforms, surveillance technology, advertising, and film production.

Data gathering was done utilizing a desktop-based documentary approach wherein secondary data sources were used, which included academic articles, books, industry reports, policy/regulatory documents, reports from investigative journalism, and case materials that have been publicly documented. Using secondary data sources was justifiable since the study is intended to examine real-life cases and discourse on media ethics and not primary data generated via interviews or surveying people.

The gathered data were subjected to qualitative thematic content analysis methodology. This method entailed the repetitive reading and examination of the chosen documentary sources as well as their coding into certain themes and categorizing related ones. Afterward, these themes were examined in comparative perspective among the case studies. This cross-case examination allowed for an evaluation of how the same ethical problems differ in context while looking at

commonalities between different types of emerging media technologies in relation to ethical concerns.

In general, the combination of qualitative content analysis and case study methods offered a strong empirical desktop research design that helped analyze not only the frequency of occurrence but also the contextually complex nature of ethical problems that arise from new media technologies. Given that the research was entirely based on the use of readily available secondary sources, there were no human subjects recruited for the research process, and thus no ethics approval was necessary. However, the research still followed academic integrity guidelines by maintaining proper referencing, accurate representation of the cases, and objective interpretations of results.

5. Case Studies and Analysis

Case Study 1: Caterpillar or Calculator, Autonomous Vehicles, Automation in Media, Public Debates, and Emerging Ethical Dilemmas

The rise of autonomous vehicles is one of the major developments in technology in the twenty-first century due to the fact that it proves how more and more technology and artificial intelligence are integrating themselves into people's lives. Autonomous vehicles use artificial intelligence, predictive technologies, machine learning algorithms, cameras, and sensors to drive themselves without any interference or minimal human interference. In addition to questions about safety in transportation and technological advancement, questions about ethics, accountability, media credibility, and even public trust have arisen. Debates around the issue of autonomous vehicles are directly linked to issues involving automation of media technologies because they both deal with the process of transferring decision-making to intelligent machines (Floridi, 2014; Gunkel, 2020).

On an international level, road accidents remain a significant moral and social problem. Studies have shown that the leading cause of road accidents worldwide is not technical but human: fatigue, distraction, speed, emotional instability, drunk driving, and flawed decision-making. In light of this, engineers and developers of artificial intelligence have suggested that the introduction of self-driving cars might drastically minimize road accidents due to the absence of human error (Goodall, 2014). Nevertheless, even though autonomous systems offer enhanced safety and productivity, they also introduce moral and ethical challenges, as the question of responsibility no longer lies solely within the driver's domain.

The situation can be explained by what is called the Calculator or Caterpillar dilemma. Autonomous cars can be seen as calculators in terms of being extremely rational and technologically sophisticated machines that are able to handle large volumes of information faster and more efficiently than humans. In this case, AI seems to be more dependable, neutral, and secure than people since it is immune to tiredness, drunkenness, emotional fluctuations, and distraction. Hence, proponents of self-driving technology tend to present it as scientifically superior to humans (Bonnefon, Shariff, & Rahwan, 2016).

On the other hand, autonomous systems can also be seen as caterpillars, innovations that are incomplete, experimental, and morally immature. Similarly to a caterpillar that has just undergone metamorphosis, an autonomous AI system might lack the capacity for decision making on ethical grounds, perception of context, and adaptability. Hence, according to those opposed to autonomous systems, in addition to providing certain benefits, they might also cause some unexpected problems which would not be foreseen by the present-day society (Coeckelbergh, 2020).

It should be noted that the conflict between the two camps does not occur solely within the realm of transport technology and is also strongly influenced by the overall anxiety about the increase in automation in the spheres of media and communications. Technologies such as automated gathering of news through algorithms, artificial intelligence-supported automated journalism, predictive analysis, automated recommendations, and automated content regulation are now increasingly employed in the sphere of media. Just as with the case of autonomous vehicles, in media the process of communication that used to be controlled by journalists and editors is automated (Diakopoulos, 2019). This raise concerns over the effects of removal of human supervision from the social aspects of communication.

The role of the media in shaping the perception of autonomous technologies by the public is even more important since the majority of the population lacks knowledge about the AI technologies. The way the technology is interpreted through the media is particularly important since it helps to determine how the general public views the autonomous vehicle as either an innovative technology that will improve people's lives or an experimental one that is likely to be dangerous for citizens (Entman, 1993). Exaggerated headlines such as Killer Robot or Dangerous AI machine can escalate fear among the general population and reinforce anti-technology sentiments. On the other hand, exaggerated claims that portray AI technologies as flawless and almost perfect may result in setting unrealistic expectations.

As such, the coverage of autonomous vehicles raises significant issues about media credibility. Credibility in media means the degree to which audiences believe that the information presented in media is factual, neutral, credible, and trustworthy (Kovach & Rosenstiel, 2021). If journalists tend to exaggerate either the threats or advantages of autonomous vehicles, then people will likely lose trust because they might think that they have been duped, misguided, or even exploited emotionally. In addition, if the media lacks the expertise on how to discuss AI technology objectively, then the discussion about the issue may be more heated than rational.

In terms of ethics, this problem is quite reminiscent of the debate about automation of the media industry. Artificial intelligence used for journalism poses similar issues regarding accountability, transparency, and human monitoring. For instance, it becomes extremely difficult to identify the one accountable for producing false or malicious information using AI technologies (Diakopoulos, 2019). In turn, society confronts the dilemma about how ethical decision-making can be mostly

controlled by humans or left to intelligent machines.

The case study provides another example of the applicability of utilitarian and deontological ethical theories to new technological controversies. According to utilitarianism, the goal is to maximize the utility of society by reducing pain, injuries, and deaths. Utilitarianism would support the ethical use of self-driving cars if they statistically produce fewer deaths on the roads than regular cars driven by humans (Bonnefon et al., 2016). Deontology emphasizes duty and morality and recognizes human dignity and the inherent dignity of individuals regardless of statistics. For this reason, the deontological perspective puts emphasis on the dignity of human beings, responsibility, freedom, and individual rights more than the numbers regarding efficacy and safety (Kant, trans. 1993).

The debate between these two approaches is ongoing in the context of self-driving cars and automated media platforms. Technology companies have a tendency towards advocating for utilitarian narratives, emphasizing aspects of innovation, efficiency, optimization, and scalability; critics emphasize the aspects of human dignity and moral responsibility. Hence, contemporary societies face an increasing dilemma of deciding how much ethical power can be vested in automated systems and whether there should be any place left for humans to oversee the intelligent machines (Floridi & Cowls, 2019).

The conclusion arrived at after conducting the case study analysis indicates the need for striking a balance between technological innovation and ethics in society. Rejecting automation and completely believing in AI are not viable solutions for the issue. The development of autonomous technology should thus take place in an ethical framework that stresses human involvement, accountability, fairness, and social responsibility (Ward, 2018). In the context of automated journalism and the use of media tools, this balance is crucial since even if automation increases efficiency and the power to analyze, ethical communication remains inherently human.

Case Study 2: Generative AI in Journalism

Generative AI has proven to be one of the biggest disruptors in journalism today. Its use of large language models and automated content creation technologies in the newsroom signals not just a change in the tools used to make journalism happen; it calls into question the basic premises under which we have understood journalism and who or what can be considered its maker. In this study, the application of generative AI in the field of journalism will be examined using actual examples from the field as well as the developing body of research literature.

The emergence of AI in journalism has been influenced by the evolution of digital media production, where AI technology is facilitating the process of content creation, providing a better user experience, and increasing accessibility through automation, real-time translations, and improvements in audio and visual aspects. In journalism, AI-enabled content production has evolved from being an experimental application to becoming a systemic process in mainstream news outlets. The Associated Press, for example, has used automated content production for financial earning reports since 2014, then expanding its AI-based content creation process to sports and elections reporting. The Washington Post utilized its own platform to produce hundreds of news articles in the 2016 U.S. presidential election, and Forbes implemented its AI platforms to help write articles in various beats.

In an interesting development that occurred in 2023, a major technology website called CNET was discovered to be covertly using artificial intelligence to produce financial content without properly acknowledging the use of automation in their content production process to the readers. As it later turned out, some of the articles were based on wrong information, posing significant concerns regarding the human element in overseeing the work of artificial intelligence. The increasing application of artificial intelligence by major media platforms highlights the need for effective governance and human value-based frameworks in media.

Three major areas where ethics become issues due to the use of generative AI in journalism include transparency and disclosure, AI algorithms bias and misinformation, and destruction of journalistic integrity. Regarding the transparency aspect, Gunkel (2020) contends that any ethical use of AI technology in the field of communications should be based on such ethical values as disclosure, accountability, and human supervision. The issue of disclosing the AI's involvement in creating journalism is far from being technical in nature and is more of an ethical necessity. It is because readers should know the sources and procedures used when generating information. As Gunkel (2020) notes, people involved in communications can use AI technology in order to achieve better communication quality. This usage, however, requires making some decisions, which presupposes a high degree of transparency.

However, misinformation dangers are increased by the extent and rapidity of content creation using generative AI technology. The ability to create content using generative AI does not have limitations to visual media but also includes texts that might be misleading or inaccurate, but stylistically authoritative. As pointed out by Kalpokas and Kalpokiene (2022), in an algorithm-mediated media environment, emotionally charged content circulates significantly faster than any form of correction or clarification, indicating that misinformation created using AI and then inserted into news systems will circulate widely.

Case Study 3: Algorithmic Bias and Content Moderation on TikTok

The application of artificial intelligence and recommendation algorithms in social media sites can be taken as a pertinent example of how ethical concerns arise from emerging technologies of digital communication. The TikTok app, for instance, operates on an algorithmic system that is currently one of the most debated across the world. The use of machine-learning algorithms by TikTok analyzes users actions on their accounts such as likes, watching duration, number of comments and shares. While it is obvious that the algorithm has made TikTok popular all over the world, it has also raised several ethical concerns about misinformation, algorithmic discrimination, online manipulation, and prejudiced visibility practices.

According to some studies, the TikTok engagement system has been accused of increasing visibility and exposure to harmful and extremist messages to the extent that users engaging with political or masculine content ended up consuming misogynistic, radical, and politically polarized videos after a few days only (Ribeiro et al., 2020). It is argued that algorithms are not neutral tools because they carry the values of the corporation, humans preconceived notions, and historical data biases. Therefore, the TikTok algorithm prioritizes engagement and profit-making regardless of ethical communication practices.

Concerns about TikTok ethics grew more relevant in election periods and times of political turmoil, when algorithms were said to promote misinformation and sensationalized material with a potential to sway public opinion and civic engagement (Sunstein, 2018). Another criticism was that TikTok lacks transparency and therefore makes it hard to understand decision-making processes for recommendations and moderation. According to Pasquale (2015), systems that function in such a manner can be referred to as black boxes, meaning that their operation goes unnoticed.

Moreover, problems with algorithmic bias gained traction following findings that AI systems usually display discrepancies in accuracy depending on race and gender. In fact, Joy Buolamwini and Timnit Gebru found that AI systems tend to be biased towards dark skin and women as they show higher margins of error when identifying them (Buolamwini & Gebru, 2018). Similar biases may take place in TikTok.

Conclusively, the TikTok case study sheds light on the ethical issues that are faced by emerging technologies within the context of modern-day media ecosystems. The case brings to light the issues between technology development, profitability through algorithms, freedom of speech, and ethical responsibility. More importantly, the case points out the immediate requirement of AI governance and ethical approaches.

Case Study 4: Facial Recognition in Media Surveillance

The application of facial recognition in Kenya is a worthy example in Africa to look into the ethical issues that arise from the adoption of new technology in terms of media surveillance and online communication. Over the past years, digital surveillance technologies have been introduced in various urban centers in Kenya. The introduction of a CCTV system, connected with facial recognition software, within the Safe City project in partnership with the Kenyan government and the Chinese company, Huawei, became an interesting incident. Within this project, it was planned to introduce a network of AI-powered surveillance technologies in strategic urban areas for the purposes of improving national security, traffic management, and crime prevention.

The Safe City Project received much attention in the media. Some people supported it as it provided an opportunity to ensure public safety and proper urban management while other people criticized the project for violating peoples rights to privacy, consent, and data protection. Counter-arguments were raised by civil society organizations and digital rights campaigners against the deployment of facial recognition technology, claiming that the implementation process had been lacking in terms of community involvement and transparency regarding the gathering, storing, sharing, and monitoring of biometric data (Makulilo, 2019). Further concerns arose following the unveiling of the Huduma Namba digital identity initiative, which implied that fingerprinting and facial recognition of Kenyan citizens would be conducted.

Ethical implications of using facial recognition in Kenya gained traction amid political tension and protests. Human rights activists expressed fears that facial recognition technology may become the tool used for monitoring journalists, activists, opposition groups, and protesters, which poses a threat to freedom of expression and democracy. This issue became especially relevant in view of the fact that facial recognition is used not only for security purposes but also in surveillance digital media that modify public communication.

One of the reasons why the case of Kenya should be examined from a media ethics perspective is that it is the conflict between national security interests on one side and personal autonomy and right to privacy on the other side. When it comes to the application of the virtues principles concerning the introduction of surveillance, values like accountability, prudence, fairness, and responsibility should be named. Nevertheless, the problem is that there were no ethical checks during the process, while the transparency level was rather low. Moreover, the absence of informed consent, algorithmic biases, and discrimination against marginalized groups are the issues that need to be paid attention to.

Additionally, there were fears that the algorithms would discriminate against certain groups, as the results of international studies have demonstrated that many face recognition systems make more mistakes in identifying African Americans than in identifying members of other racial groups (Buolamwini & Gebru, 2018). In the case of Africa, the issue is particularly topical, as there are very few regulatory frameworks governing the use of AI.

To conclude, the example of Kenya demonstrates the complex ethical dilemmas created by such advanced technologies as facial recognition, which are related to issues of privacy, surveillance, accountability, consent, and democratic rights. The example also suggests the importance of enhancing ethical regulation, developing more open mechanisms of regulation of such surveillance technologies in media and communication systems in Africa, and engaging citizens in the application of these technologies.

Case Study 5: AI in Film Production Roadrunner: A Film About Anthony Bourdain (2021)

One of the most discussed ethical issues in relation to AI use in documentary films is the case of Roadrunner: A Film About Anthony Bourdain, created by director Morgan Neville. In this documentary, the filmmakers used voice synthesis powered by AI technology to recreate the voice of deceased celebrity chef and media personality Anthony Bourdain reading things that he himself wrote in his emails and texts. While the filmmakers maintained that the voice generated by AI was true to what Anthony Bourdain wrote, there was no clear indication in the film that voice was produced using AI.

The critics claimed that the use of synthetic AI in the documentary broke the rules of documentary ethics related to transparency, authenticity, informed consent, and trust between the audience and the documentary makers. Traditionally, documentary film-making has been based on the idea that documentaries are supposed to be truthful and authentic records of reality. The use of AI in the production of this documentary created confusion because the viewers cannot distinguish whether they are watching an authentic archive or a computer-created video clip. According to the scholars, the use of AI technology is unethical because it undermines the epistemology of documentary filmmaking as an act of searching for the truth.

Another problem that arose from this incident was the question of posthumous consent and the issue of digital personhood. Given that Anthony Bourdain is no longer alive, there was no opportunity for the approval from his side concerning the creation of the AI-version of him, and questions regarding whether this permission can be granted by the estates, relatives, or producers emerged.

If we analyze the above example from the perspective of the ethics of media, this case demonstrates an ethical dilemma that is posed when the creative aspect confronts ethical considerations within the scope of artificial intelligence implementation in narration development. While the use of modern technologies significantly increases the efficiency of film production and expands its potential, its implementation in documentary filmmaking violates some crucial principles, including authenticity, consciousness, and transparency.

6. Findings

As indicated in the results of qualitative content analysis done in the chosen case studies, there are several complex and systematic moral dilemmas resulting from new technologies, and hence there is no existing ethics framework which can be used to deal with these issues. As per the identified themes, there were six major thematic areas: transparency and disclosure, privacy and surveillance, algorithmic bias and discrimination, misinformation and synthetic media, accountability and governance, and finally consent and digital personhood. From these findings, it is clear that although emerging technologies bring efficiency and innovations in media production, they also pose ethical dilemmas.

A. Transparency and Disclosure

Transparency and disclosure emerged as some of the major ethical issues related to the adoption of new media technology. In all the selected case studies, communication systems supported by new technologies have been characterized by opacity, which hindered the audiences from understanding the creation, editing, distribution, or promotion of any media message. It emerged from the findings that the systems of artificial intelligence, algorithmic recommendations, and synthetic media often erode the differences between human communications and computer-generated communications, thus creating problems with the principles of truthfulness and transparency (Gunkel, 2020).

The primary ethical concern that arose from the case studies was the lack of sufficient disclosure on the presence of artificial intelligence in the process of media creation. In the case of Roadrunner: A Film About Anthony Bourdain, the creators of the film used AI technologies to create a synthesized version of the voice of Anthony Bourdain, who had passed away; however, no such disclosure was made to the audience at the time. Therefore, an ethical dilemma arose concerning whether the film violated the expected ethics of authenticity and transparency. Due to the lack of disclosure, it was not clear whether certain aspects of the film were authentic or reconstructed using technology. According to Floridi and Cowls (2019), transparency is an ethical necessity in artificial intelligence because viewers need adequate information for evaluation.

Similarly, the results showed that algorithmic recommendation systems of digital platforms function using opaque algorithmic mechanisms that are hardly penetrable for public inspection. Digital platforms like TikTok, YouTube, and Facebook use proprietary algorithms to regulate content visibility, recommendations, and priorities for engagement. Nevertheless, most users do not have information about how algorithms influence their consumption habits and informational landscapes. Algorithmic recommendation systems are defined by Pasquale (2015) as black boxes, whose inner workings and logic are unknown to people. Thus, it can be concluded that algorithmic systems opacity diminishes media credibility due to the impossibility of analyzing the processes of content selection and dissemination.

B. Privacy and Surveillance

The results also showed that advancements in technology exacerbate ethical issues related to privacy violation, surveillance, and commoditization of personal data. The technological systems in the selected case studies have become dependent on the collection of vast amounts of data, behavior tracking, biometric analysis, and prediction models to enhance their commercial, political, and communication capabilities. Thus, media ethics theories that have long centered on content portrayal and journalistic practices seem inadequate when applied to surveillance mechanisms in modern digital networks (Zuboff, 2019)

The use of facial recognition technology in Kenya provided a concrete example of the extent to which technologies using artificial intelligence increase organizational capabilities of surveillance and tracking of people in public spaces. The use of AI surveillance systems under the Safe City project elicited various ethical issues pertaining to the invasion of privacy, informed consent, democracy, and accountability of the state. Even as such technologies were presented publicly as tools for promoting safety from terrorism and criminal activity, the research findings revealed significant fears among members of the population concerning privacy violations and abuse of biometric information collected through them.

The study further demonstrated that several digital services work on economic models based on surveillance where data from users is sold for commercial purposes like advertising and personalization. In most cases, users end up giving away

information about themselves and also their behaviors unknowingly because the collection of such information is beyond their knowledge and control. This shows that technology has created a situation of loss of digital autonomy due to the rise of surveillance economies, where users end up as exploitable entities whose data is harvested.

C. Algorithmic Bias and Discrimination

The analysis found that algorithmic bias and discriminatory technology use were common ethical issues arising in different case studies examining automated content moderation systems, recommendation engines, facial recognition technology, and artificial intelligence-powered communication platforms. The results indicated that algorithms were not ethically neutral as they reproduced social inequality by reinforcing existing power dynamics within training data, design assumptions, and technological innovation (Noble, 2018).

In the case study on the use of facial recognition technology, there was a clear indication that AI-based systems often showed high levels of error in processing images of women, dark-skinned people, and minorities. As Buolamwini and Gebru (2018) show, facial recognition technology has higher error rates in identifying darker-skinned women relative to light-skinned males. This finding indicates that technological innovation may perpetuate discrimination and exclusion under the guise of scientific and technological objectivity.

Likewise, the evaluation of recommendation algorithms revealed that digital platforms tend to prioritize profitable, emotionally compelling, or culturally prevalent content over alternative viewpoints and marginalized communities. The recommendation algorithms of TikTok, for instance, have been shown to promote highly engaging content irrespective of its moral and social implications. This, therefore, means that sensationalism, polarizing, and extremist ideologies gain more prominence from algorithmic processing than moderate or complex information. According to Noble (2018), algorithmic systems mirror social power structures since technology systems are influenced by the underlying political, economic, and cultural assumptions of their development contexts.

D. Misinformation and Synthetic Media

However, these findings demonstrated that there was an evident intensification of the issues of misinformation, epistemic instability, and loss of media integrity because of synthetic media technologies, especially when it came to deepfakes and artificial intelligence technologies used to create various media artifacts. Indeed, all of the cases mentioned above involved AI-generated media that was able to produce highly realistic images, sounds, texts that could mislead consumers and deconstruct their perception of various facts.

It is possible to note that the Roadrunner documentary case provides an opportunity to see how the problem of artificial manipulation of the past becomes relevant again because of modern technologies. Indeed, by using artificial intelligence systems to recreate Anthony Bourdain's voice in his documentary, the producers challenged traditional notions of authenticity and truth. In other words, it became extremely difficult to identify whether certain fragments of the documentary presented real archival footage or something else created with artificial means.

Moreover, the results illustrated that algorithm-enhanced disinformation is highly contagious within digital media because engagement-optimized algorithms drive social media platforms. Algorithmic recommendation systems favor emotional content since such content tends to be highly engaging, resulting in increased click-through rates and profits for advertisers. According to Sunstein (2018), online media communication channels contribute to ideological polarization and disinformation dissemination because algorithmic systems reward emotionally charged content over factual information and democratic discussions.

E. Accountability and Governance

The issue of diffusion of responsibility and the lack of accountability mechanisms in technology-mediated communication was another common theme identified in the case studies selected. This was shown to be due to the multiplicity of actors behind AI-driven technology and infrastructures and, thus, made assigning ethical and legal responsibilities challenging (Couldry & Mejias, 2019).

For instance, the autonomous vehicles case study clearly reflected this issue since the responsibility for accidents committed by AI-driven systems had been divided among designers, manufacturers, regulators, users, and AI software infrastructure itself. In this regard, public discussions on the issue of autonomous technologies have indicated a significant ambiguity about who bears responsibility for the harm committed by such technologies. Likewise, the same ethical problem arises with the use of artificial intelligence in journalism.

In addition, it was discovered that technology companies tend to portray algorithms as purely technical infrastructure instead of seeing them as socially constructed systems that are influenced by institutional values, business interests, and political assumptions. Therefore, businesses could possibly evade responsibility for any social implications of their technologies by treating negative effects as an accident brought about by technical failure rather than a governance problem. According to Gillespie (2018), modern digital platforms now operate like strong social institutions that make critical governance decisions that impact public discussion, political engagement, and communication in a democracy.

F. Consent and Digital Personhood

This was evidenced by the fact that advances in technology pose major ethical questions in regard to consent, identity ownership, and personhood. Synthetic media technology, voice synthesis technology, facial cloning technology, and deepfake technology have been enabling peoples identity to be synthesized, altered, or exploited without appropriate consent or authorization (Floridi, 2014).

This ethical conflict is seen in the case of Roadrunner, where Anthony Bourdains voice was recreated after his death without informing audiences, and also there were no signs of

posthumous consent. As such, ethical questions arose whether deceased people can have ongoing rights to their digital identities, and whether synthesizing their appearance can be viewed as a form of autonomy and dignity infringement.

In addition, the results indicated that existing theories of media ethics offer limited insight into posthumous depiction, digital reincarnation, and the concept of ownership of synthetic personas. Conventionally, media ethics had always centered on human creation, depiction, and journalism through analog medium conditions. However, technology has increasingly led to the creation of confusion over the realness of identity versus its simulation. This problem was therefore created by the fact that artificial intelligence can mimic the voice, face, personality, and actions of humans, making their autonomy and distinctiveness problematic.

7. Discussion

It has become evident from the conclusions of this study that the introduction of new technologies is causing great changes in media systems, communication process, and credibility issues. The findings indicated that even though technologies such as artificial intelligence, algorithms, synthetic media, facial recognition technologies, and automated communication technologies improve the efficiency of the communication process, they simultaneously create ethical issues which cannot be addressed through current media ethics. This implies that there is a conflict between technology and ethics in todays media systems.

Among the major findings is one regarding transparency and disclosure in technologically mediated communication environments. The research confirmed that artificial intelligence and algorithms often work in an opaque way such that the population is unable to comprehend how media content is produced, changed, ranked, and disseminated. Such a finding is consistent with what Pasquale (2015) referred to as black box societies, according to which algorithms have become part of daily social interactions in an opaque manner. The opacity noted above implies that people often come into contact with computationally mediated communication without really knowing much about the process involved.

This is further emphasized by the documentary case of the Roadrunner that clearly highlights the negative impact of a lack of disclosure on media credibility and audience trust. The use of AI technology in recreating the voice of Anthony Bourdain in the documentary film was not disclosed at first, which resulted in making the distinction between genuine archival footage and the use of technology for creating simulations blurry. In line with the findings of Floridi and Cowls (2019), this supports the statement that transparency is considered one of the crucial elements in AI ethics as people have to receive necessary information for assessing the reliability of the media material.

Secondly, the study findings prove that the opacity of digital recommendation systems negatively impacts the level of trust of the population towards media channels. Indeed, in todays reality, the algorithm is making decisions concerning which pieces of information are supposed to be viewed by people. However, most users cannot understand how this process happens due to the fact that it involves computational logic that cannot be understood by everybody. Thus, there is a significant power imbalance between technocratic companies and consumers. Moreover, according to Gillespie (2018), digital media have become powerful social institutions nowadays.

The Kenyan case study involving facial recognition system implementation clearly shows this phenomenon. Although surveillance has been implemented into public places with the goal to ensure national security and safety, the survey results indicate high concern among the citizens with respect to excessive surveillance and potential misuse of biometric data. In this case, the assertion made by Lyon (2018) about the changes occurring within the power structure under the influence of permanent observation and categorization of the behaviors becomes relevant. Moreover, the matter of surveillance capitalism suggested by Zuboff (2019) comes up as digital communication technologies make human behavior a commodity.

The research on the existence of algorithmic bias and discrimination shows that new technologies cannot be regarded as an impartial technical means. Instead, algorithms used in the infrastructure perpetuate the same social inequality already present in data sources, design premises, and communication environment. This result perfectly confirms the thesis put forward by Noble (2018).

As demonstrated in the case of facial recognition technologies, there are concerns about the disparate inaccuracy in identifying women and racial minorities, hence confirming the issue of discriminating technologies. As identified by Buolamwini and Gebru (2018), several commercial facial recognition technologies tend to underperform in identifying people with darker skins due to biases in their data sets. Therefore, the study illustrates that technology continues to reproduce history through reproducing discrimination while presenting itself as scientific and objective.

On the other hand, the study on recommendation algorithms suggests that digital platforms favor monetizable and emotionally stimulating media while ignoring diversity, equity, and balanced debates in the process. According to the study, the algorithmic structures of the social platform Tiktok tend to favor sensationalized, provocative, and emotionally stimulating information since they attract more users and hence more profit from advertisements. As stated by Sunstein (2018), digitally mediated communication platforms tend to contribute to polarization and ideological segmentation by emphasizing emotionally charged information over rational discussions.

These findings are especially important because they have an impact on public trust and the credibility of the media. Whereas users perceive technology to be biased and manipulative, technology-mediated communication loses its integrity. As such, fairness and inclusiveness emerge as major ethical principles to be observed in automated media systems.

The second ethical concern related to emerging technologies is the problems related to misinformation and synthetic media. It turned out that the rise of deep fakes, false journalism made by computers, voice creation, and other types of generative AI

creates confusion between what is real and what is not real. This phenomenon is demonstrated in the Roadrunner documentary case study when it was hard for people to separate fiction from reality. In modern times, these difficulties may be witnessed in generative AI, producing authentic-looking text, images, and sound that imitate human interaction. According to Chesney and Citron (2019), the appearance of deepfake videos undermines the integrity of democratic communication by creating doubts regarding the process of verification.

Moreover, the study findings suggest that there is a built-in amplification mechanism of misinformation in digital ecosystems due to the reward algorithm that favors emotionally loaded messages. Thus, although misinformation is not based on facts, it is distributed rapidly in digital ecosystems. From these findings, one can see that contemporary technologies do not only facilitate misinformation generation but create a framework for the amplification of misinformation.

Lessons about accountability and governance show that emerging technology poses challenges to the conceptualization of responsibility in media and communication systems. Within the traditional media context, responsibility would be assigned to particular people or institutions, such as journalists or newspapers. However, the advent of technology complicates the assignment of responsibility by expanding it from journalists to software developers, platform owners, engineers, automation, and companies.

The final findings on consent and digital personhood demonstrate that emerging technologies can further complicate established ideas about individualism, autonomy, and representation. Using synthetic media technologies, individuals voices, faces, and personalities can be cloned and replicated without their consent. This has been demonstrated in the case of the digital personality created for Anthony Bourdain without his consent since he had already died at the time.

8. Conclusion

The research centered on the potential ethical challenges associated with emerging technologies and the implications of such developments for the credibility of media. Through qualitative content analysis of specific case studies in light of the growth of artificial intelligence, algorithms and recommendations, autonomous technology, facial recognition systems, surveillance, and synthetic media, it became evident that emerging technologies had both positive and negative effects on the degree of trust in media by the public. The positive effects include the ease, automation, personalization, and accessibility that these technologies bring about. However, the ethical challenges concerning emerging technologies and media include transparency, disinformation, surveillance, bias, accountability, and digital identity concerns.

This study has shown that the lack of clarity regarding artificial intelligence and algorithmic communication infrastructure contributes to decreased trust because people cannot comprehend how information is generated, prioritized, moderated, or distributed. Regarding the theoretical basis of the study, the findings are consistent with previous studies by Diakopoulos (2015) about the research he conducted on algorithmic accountability and journalism. Opaque computer systems affect transparency and democratic accountability negatively according to Diakopoulos's investigation. A different example where the research produced consistent results can be seen through the work of Ananny and Crawford (2018) where they studied networked transparency and found that despite the growing role of algorithmic systems in public communication, their visibility was very low.

Further, the results highlighted that surveillance-based communication infrastructures have raised ethical issues about intrusion into the privacy of individuals and data mining practices. According to the analysis, digital platforms continue to monetize personal data by implementing behaviors tracking tools, predictive analysis technologies, and biometric surveillance systems without seeking informed consent from the users. The result is in accordance with the study conducted by Tandoc and Maitra (2018) on digital surveillance and journalism. The research showed that digital infrastructures are increasingly creating blurred lines between communication technologies and surveillance tools. Moreover, the results are supported by the research conducted by West (2019) on data governance and ethics in AI technology. The study suggested that data extraction and mining practices without any regulations undermine trust among the people in digital technologies.

In addition, the results confirmed the tendency that algorithmic systems tend to reproduce existing societal inequalities that are already contained within the datasets and technological development process. These results suggest that recommendation algorithms and facial recognition software can contribute to discriminatory patterns of visibility and biased technological outputs despite being marketed as purely computational tools. Such an observation is in line with the peer-reviewed results of Buolamwini and Gebru (2018), who studied the problem of gender and racial inequality in relation to the application of facial recognition technologies and found out that the AI algorithms produce a disproportionately higher number of errors for women and dark-skinned people due to the biased dataset. This evidence is consistent with the results of Binns (2018), who studied how algorithmic system tend to institutionalize social structures and biases through technologically neutral methods.

Additionally, it was found that the application of synthetic media technology and generative AI technology greatly affects media credibility in terms of eroding existing presumptions regarding authenticity and truthfulness of communication. The research showed that deepfakes, fake AI journalism, and synthetic voice technologies confuse the lines between actual and fictional media content and consequently make it difficult for the audience to determine their true meaning. This finding is consistent with the findings of Chesney and Citron (2019) about the threat of deepfakes and synthetic media to democratic communication. Specifically, they showed that deepfake-generated material undermines democracy through undermining public trust and creating epistemic uncertainty. Similarly, the results coincide with the findings of Vaccari and Chadwick (2020), who found that the development of deepfake

and synthetic media leads to erosion of trust in digital communications, as audiences struggle to differentiate actual media content from the faked one.

In addition, the current study showed that engagement-oriented algorithms reinforce the spread of misinformation, sensationalism, and content that incites emotions since such types of content increase engagement and generate profits for platforms. This result is consistent with the findings of Vosoughi, Roy, and Aral (2018) in their well-known peer-reviewed scientific paper published in Science, which proved that misleading information propagates faster in digital networks than correct information because of the novelty and emotional elements of the information. Likewise, the results of this study correspond to Cinelli et al., (2021) study of misinformation ecosystems, which revealed that algorithms for recommending content have a significant impact on the rapid distribution of false and polarized information online.

The results revealed that technology-enabled communication systems make it difficult to understand accountability in terms of technological harm since the blame is shared between various parties involved in the development, implementation, management, use, and automation of such systems. These results coincide with those of Martin (2019), whose research examined the ethical implications of algorithmic decision-making. Specifically, Martin found that in cases of distributed computational systems, institutional accountability tends to be unclear, and it is also hard to establish legal liability for technological harm. Likewise, the findings corroborate the study conducted by Mittelstadt et al. (2016), who argued that the current governance regime was not well-equipped to control AI-based systems.

Lastly, it was found out that the current ethical paradigm cannot be relied upon in resolving ethical dilemmas posed by new forms of media because most ethical codes were formulated in relation to human-centered communication processes and thus may not be effective in dealing with questions related to the use of algorithms, synthetic media, personhood of machines, and other issues. This conclusion can be linked with the findings of Couldry and Powell (2014) that ethical considerations in relation to big data need to shift towards more technologically-mediated concepts of power and governance due to the rapid development of digital infrastructure. Also, the research results confirm Fjeld et al., (2020) analysis of AI ethical guidelines because new media requires a transdisciplinary approach that focuses on such aspects as transparency, accountability, and fairness.

In general, this research study affirms the vital contribution made by emerging technologies in changing media systems, journalism, and communication through opening up many different possibilities as well as ethical issues. While the use of technology and automation results in making processes more efficient and democratic in terms of providing information, they can raise some concerns that might impact media integrity and credibility. For that reason, the research concludes that, in order to be considered legitimate in the future, technologically enabled communication systems need not only incorporate technology but also establish ethical systems based on such values as transparency, accountability, inclusion, equality, respect for privacy, and human control over the process.

9. Recommendations

The research suggests that media outlets, technology firms, and regulators adopt mandatory transparency and disclosure policies with respect to the implementation of AI and automation technology in the process of media production, moderation, and dissemination. Audiences must be notified whenever content that utilizes AI or AI-assisted technologies is involved in the production of journalism, documentaries, recommendation algorithms, or synthetic media. The necessity for such a disclosure policy is crucial for the purpose of building media credibility, fostering accountability, and preserving the trust of the public in technologically mediated communication platforms.

In addition, the study suggests that the government and media regulatory bodies should create a set of rules that deal with algorithmic accountability, data privacy, surveillance technologies, and synthetic media. The present guidelines on media ethics and communication policy frameworks do not have the ability to cope with emerging issues that arise because of artificial intelligence, facial recognition technologies, deepfakes, and automated systems. For this reason, policy frameworks that are based on human rights, transparency, fair treatment, and democratic principles need to be created collectively by the government, scholars, civil society groups, journalists, and technology companies.

Finally, the research suggests that journalism and communication schools must improve digital ethics and AI-related training for journalists and audiences. With the development of new technologies that increasingly impact todays media environment, media workers need specific competencies in such areas as algorithmic accountability, AI ethics, verification of artificial content, data management, and appropriate integration of technologies in journalism. In addition, media audiences must be provided with knowledge and skills that would allow them to detect disinformation, recognize algorithms at work, and analyze technology-based communication. This will lead to responsible media consumption and trust-building.

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