OPPORTUNITIES AND CHALLENGES OF JOURNALISTIC TRANSFORMATION ARTIFICIAL INTELLIGENCE BASED

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ABSTRACT

Artificial intelligence, which accompanies the advent of Internet technology, has now penetrated all print and electronic media to use new media platforms as a tool to disseminate information to the public. This article explores the potential impact of artificial intelligence (AI) on the media industry by analyzing various aspects of the impact of AI, including news automation, content adaptation, fact-checking, and new ethical challenges that present new opportunities and challenges for journalistic activities. This research is a qualitative study with a descriptive-analytical approach. This approach will allow an in-depth understanding of the impact of artificial intelligence and media transformation on journalistic activities, as well as its opportunities and challenges for the future. AI-based journalism is a system that can independently collect, analyze, and process data through human-created applications, both textual and visual. Although AI can help in some ways to increase the efficiency of journalistic work, the intelligence of a journalist remains irreplaceable in terms of research and investigation.
Keywords: Journalism, Artificial Intelligence, Media

INTRODUCTION

The dynamics and development of digital technology in the era of Society 4.0 are quite rapid, especially in the multimedia and journalism sectors. Technology has eliminated the boundaries of geographical space, time differences have begun to be felt because communication and connections have been facilitated by the internet. Almost all activities have been replaced digitally, data is more accessible and transparent, and economic activities are slowly shifting towards a digital economy, all of which are based on the internet and computers, so the development of telephones as a means of communication has changed to smartphones which have more complete and sophisticated functions in accessing communication (Santoso, 2019).

The ever-changing phenomenon of the digital world marked by the development of artificial intelligence (hereinafter referred to as AI) has now become a transformative force that permeates all aspects of human life, from the moment we open our eyes in the morning until we fall asleep at night, AI is always present as an invisible companion that shapes our daily experiences, decisions, and interactions. Imagine a morning that starts with a smart alarm that adjusts your wake-up time based on your sleep patterns and daily schedule. Your coffee is brewed by a machine that has been set to suit your taste preferences. When going to work to the office, humans drive cars that are navigated by an AI system embedded in a computer chip that serves to guide them through the fastest and most likely to avoid traffic jams. In the workplace, virtual assistants help organize schedules in everyday life. Artificial Intelligence (hereinafter abbreviated as AI) has become a force that brings change in various lines of human life, especially in the world of journalism industry. Artificial intelligence presents various features and the ability to process large amounts of data, makes it easier for humans to automate journalistic tasks, including in terms of content creation and publication, artificial

intelligence has brought about very significant changes in terms of journalistic work because the development of artificial intelligence technology that exists today has covered various fields which have finally also entered the realm of journalism and various information available online (Utoyo & Putranto, 2022).

The purpose of this article is to examine the impact of artificial intelligence on journalism, analyze the opportunities and challenges it poses, and assess the long-term implications for the journalism profession. But AI's impact extends beyond everyday convenience. In healthcare, AI systems are helping doctors diagnose diseases more accurately and predict health problems before symptoms appear. In education, learning platforms are adapting to each student's pace and learning style. Meanwhile, in security, facial recognition and predictive analytics are helping prevent crime, even as tough ethical debates continue to arise. This AI revolution is not about efficiency or productivity. It is already changing the way we interact, think, and behave. The social media we use every day is powered by AI algorithms that select the content we see and influence our thoughts and feelings in simple yet profound ways. Chatbots and virtual assistants are becoming increasingly complex and challenging our understanding of human-machine communication and relationships.

However, as the scope of artificial intelligence that penetrates various aspects of human life becomes wider, it raises important questions that must be anticipated, namely how to balance the benefits of artificial intelligence with its potential risks to human privacy, security, and autonomy. Are we ready to face major changes in work caused by automation? How can we ensure that the development and use of AI is ethical and does not ignore human values? Therefore, journalism as an activity of reporting various events or incidents that occur in society cannot be separated from construction with a certain perspective to be used as news material (Saragih, 2018).

Data journalism helps journalists work to lighten the burden of professional journalism, data journalism looks shallow, and the quality of AI journalism news is almost the same as professional journalism news. AI-based technology becomes an important strategy to help companies gain competitive advantage, increase market competition, or drive more intense business competition (Apriliyanti, Sari, & Noor, 2024). This paper explores the increasingly complex landscape of journalism shaped by artificial intelligence and how AI has transformed the industrial world, changed the social order, and further challenged human understanding of living in the digital age. As food for thought to prepare and present extraordinary opportunities and to meet unprecedented challenges.

Journalistic transformation can be defined as a major change in journalistic practice influenced by technological, economic, and social developments. In the digital era, this change includes a shift from print media to online media, the integration of electronic media and the internet in the dissemination of information, and the rapid leap in digital technology that has brought significant changes to human life, and the latest is the adoption of AI to support the process of production and distribution of information.

In line with the development of internet technology that is increasingly penetrating human life, the media for disseminating information has also experienced rapid development, which is marked by the transformation and convergence of mainstream media into various media platforms. The convergence or combination of various media platforms, telecommunications, and computers in digital form is what is understood as digital media transformation.

The presence of digital-based online media in Indonesia has made the media industry

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experience very significant changes from time to time. Even now, almost all print media to electronic media inevitably present news in the form of online, e-paper, and live streaming (Sumardi & Suryawati, 2022). The integration of various media platforms is one of the strategies of media companies to continue to exist in the increasingly tight media competition. In addition, media integration also makes the published news content reach more audiences according to the number of platforms used at a lower cost.

Artificial intelligence (AI) is a branch of computer science that focuses on the development of systems and algorithms capable of performing tasks that normally require human intelligence. Historically, Artificial Intelligence (AI) encompasses the development processes, evolution, concepts, and technologies that aim to empower machines to mimic or demonstrate human intelligence. The historical trajectory of AI begins with early innovations that provided the foundation for the development of modern AI (Triartanto, 2024). This includes the ability to learn from data (machine learning), understand natural language (natural language processing), and recognize patterns in data (pattern recognition).

Artificial intelligence is one of the products of technological advancement created to imitate human cognitive functions, therefore the basis of the AI system is analyzing data, understanding patterns, recognizing the surrounding environment to making decisions. AI has been adopted in various fields, such as health, transportation, finance, and of course, media. AI technology is expected to be able to complete human work more easily and provide maximum results compared to if it is done manually by humans (Pramono & Prakoso, 2022). In healthcare, AI is used to analyze medical data and help diagnose diseases with higher accuracy. In the transportation sector, autonomous vehicle technology utilizes AI for navigation needs and real-time decision-making. While in the financial world, AI algorithms help policy makers analyze risks and make investment decisions. Through fast data processing capabilities and in-depth analysis, AI contributes to efficiency and innovation in various sectors, including cost savings and service improvements.

METHODS

This research is a qualitative research with a descriptive-analytical approach. This approach will allow for an in-depth understanding of the impact of artificial intelligence and media transformation in journalistic activities and their opportunities and challenges in the future. This research is a literature study as stated by Nazir, namely a study with data collection techniques through studies and examinations of books, literature, notes, and reports that are related to the problem being solved (Pramono & Prakoso, 2022), Namely by conducting searches, collecting, and analyzing literature related to artificial intelligence, media transformation in journalistic activities, and its opportunities and challenges in the future.

RESULT AND DISCUSSION
Artificial Intelligence and Modern Journalism

The development of technology has dramatically changed the face of journalism, especially in Indonesia, to become increasingly diverse, from print journalism profiles to the internet, technological transformation has not only changed the work system of journalists, but it is also undeniable that it has influenced the principles, values and ethics held by some journalists. The

presence of mobile phones and social media, which increasingly dominate the way information is delivered, presents new challenges and opportunities. Now, news no longer only comes from mainstream media, but also from citizen journalism and digital platforms, making the speed of information dissemination the main basis of mass media.

Many parties believe that digital computerization technology and the Internet of Things have increased the confidence of media managers and that skills in mastering both are the main capital in facing the Industrial Revolution 4.0. so it is not surprising that more and more media institutions are growing like mushrooms in the rainy season, the convergence between physical, digital, and technological aspects which are the main characteristics of Era 4.0 provides a wide opportunity for the industrial world to carry out activities based on technological resources effectively and efficiently to create a more productive, regenerative and restorative business model (Sunarto, Nurul, & Amida, 2022).

This is also what is happening and being felt in various fields of modern industry, including the world of journalism. They believe that everything related to artificial intelligence will bring innovation and progress in this field. The development of artificial intelligence (AI) technology has given birth to various creations and innovations that have significantly changed the face of the journalism industry. Technological advances have a very broad impact on various aspects of journalism, not only facilitating the process of collecting data reporting but also presenting new ways of conveying information to the public. The existence of artificial intelligence directly creates new dynamics that enrich and facilitate journalistic activities and improve and increase operational efficiency.

New media has changed the world order of journalism in four ways. First, the nature of news content is inevitably changing as a result of the emergence of new media technologies. Second, the way journalists do their jobs is changing in the digital age. Third, the structure of the newsroom and the news industry is undergoing a fundamental transformation. And fourth, new media is bringing about a reordering of the relationship between news, journalists, and the public, including audiences, sources, competitors, advertisers, and governments (Pangaribuan & Irwansyah, 2019).

One of the most striking advances is the emergence of automated journalism. By utilizing algorithms, media can now produce news reports from data instantly. For example, financial news based on numbers or sports results can be produced in seconds. AI technology allows journalists to focus more on in-depth analysis and complex narrative development, while machines handle routine reporting. This not only speeds up the news production process but also increases the amount of content that can be produced. AI also enables big data analysis, where journalists can mine information from multiple sources quickly and efficiently. This technology helps identify patterns and trends that were previously difficult to find. Using AI-powered analytics tools, journalists can enrich their reporting with accurate data, providing deeper context to the issues being discussed. For example, in an investigative report, AI can manage and analyze hundreds of thousands of documents to find relevant relationships. Thanks to the increase in microprocessor speed to support the sophistication of AI algorithms, robots are now starting to replace the role of journalists as message makers. Artificial Intelligence (AI) is slowly able to create robots or systems that write articles like human journalists (Utoyo & Putranto, 2022). There are at least several opportunities and challenges as a result of AI technology in human life:

AI and the Opportunities of Modern Journalism

Artificial intelligence has now become a very important technology in various sectors of life, so it is natural to make AI a mainstay in replacing some functions that can be done by humans, because of its ability to increase time efficiency and speed in performing many types of tasks, minimize the potential for errors, and provide recommendations or predictions that can increase productivity. The speed and time efficiency offered by AI are not only revolutionizing the business world but also various other sectors, such as education, finance, health, and transportation.

Meanwhile, in the world of journalism, the efficiency of time and energy is also an advantage of AI in improving the process of compiling, reporting, and writing news. When offering AI to several mass media publishers to help in the process of creating the news, a Google spokesperson said that the tool was not intended and would not be able to replace the important role of journalists in reporting, creating, and quickly checking their articles.

The use of digital technology through social media as a buzzer media has touched various fields including those that are often considered unpopular, the use of Buzzers is now a new trend to form framing or public opinion so that it can improve the positive image for buzzer users. Buzzer can be simply interpreted as a person or collective who acts as the brain or creator of discourse/issues to be discussed by netizens in cyberspace. He is called a buzzer because it is related to his task of buzzing an issue or discourse to be accepted and captured by the public as a construction of thinking (Faulina & Chatra, 2021).

The latest developments are that many social users are starting to see Buzzer as an opportunity and making it a very promising "profession" in collecting rupiah, according to researchers, Buzzer was initially only known in the digital business world as an effort to market products or goods, but Buzzer eventually developed into the political realm. The use of Buzzer, especially on social media, has the power to provide tremendous influence for every citizen to determine their rights and is still the strongest weapon in influencing everyone's decisions in the very dynamic political democracy space (Astuti, 2023). To form public opinion towards a particular figure in campaign events and regional or presidential elections, the Buzzers also use AI to produce news or information to be conveyed to the public.

AI and the Challenges of Modern Journalism

One of the challenges for modern journalism is the ability to present information through beautiful visuals because the onslaught of digital technology has succeeded in satisfying the curiosity and enthusiasm of readers. Visual technology with color, design, and images is much more interesting than boring textbooks. The development of technology is often considered a stumbling block to the love of reading (Kurniawan, 2020). The integration of audio and visuals in the publication of increasingly diverse information requires journalists to be able to adapt and become familiar with technology and graphic design so that the news they create can be presented more creatively and innovatively.

The massive use of the Internet at low cost, which is now one of the triggers, has also made media entrepreneurs take immediate action and improve themselves because the increasing strength of digitalization is not only the reason for the birth of several online media but also triggers existing media corporations to be more serious about handling their digital platforms (Pangaribuan

& Irwansyah, 2019). In addition to the two problems stated above, there is another very fundamental problem that is often encountered in online journalism, namely the problem of the decreasing efforts to enforce journalistic principles such as objectivity, verification (check, recheck, cross-check), and cover both sides. This is often ignored so journalistic ethics are not enforced in reporting (Sumardi & Suryawati, 2022).

In many recent literature, it is stated that the challenge of media in the digital era like today is that news must be fast and concise, so it often ignores journalistic principles. As a small and medium online media, with independent funding and no more than 20 journalists, the newsroom is required to generate income from site monetization. Thus, the biggest challenge of technological transformation and artificial intelligence is to confirm that the information in circulation has truly been checked for accuracy and validity.

The Future of Journalism with Artificial Intelligence

The existence of AI that has unique capabilities is a hot topic of discussion in the world of journalism. Seeing this dynamic, a journalist is required to be able to develop and adapt, understand and learn to improve new competencies in using AI. A journalist must have all-round skills, be able to write, be able to take photos and easily apply currently developing technology, one of which is Artificial Intelligence. There are at least three new competencies that must be applied, including data analysis competencies, social media management, content creators (Johansah, 2024).

Although in compiling news and information AI is able to present interesting sentences, this is not the case with journalistic culture and techniques that must use natural human intelligence such as investigations and investigations to find facts in the field, this is a real illustration that the journalism profession will not be replaced by the existence of AI. For media entrepreneurs, the advancement of Internet technology, especially AI technology, now provides wider opportunities to innovate, develop, and reconstruct editorial policies, media organizations, media management, human resources, and target audiences based on digital media, in facing the 4.0 era which demands speed and accuracy. In line with the transformation and innovation in press institutions, journalists are also required to follow developments. The concept of journalism in the fast-paced Industrial Revolution 4.0 era requires the sensitivity of journalistic instincts in formulating all events or incidents to be reported. In addition, journalists are also required to adhere to the principles of journalistic ethics, including presenting original news that is packaged professionally, not only one-way but also comprehensive or multi-directional.

CONCLUSION

The development of internet technology and the convergence of journalistic communication media have brought changes in journalism activities, especially with the presence of artificial intelligence (AI) technology. AI-based journalism is now one of the pillars of modern journalism, AI technology has a positive impact on the efficiency of journalistic work, enabling automation of tasks and faster data analysis. However, this technology also provides opportunities and challenges in managing journalistic media, therefore journalists are required to adapt, master new skills, and maintain the integrity of the profession, maintaining a code of ethics to remain relevant in the ever-evolving digital era.

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