

News Editors' Perceptions and Acceptance of AI Integration in Malaysian Journalism: A TAM-Based Quantitative Study

WESAM ALMAHALLAWI*
IHAB AHMAD AWAIS
Universiti Sains Islam Malaysia

ABSTRACT

This paper explores how artificial intelligence (AI) tools can be implemented in Malaysian newsrooms, with the focus on how AI can change the nature of journalistic activity, what ethical concerns surround this approach, and the impact of AI on the quality and credibility of news. The data collection was conducted by sending a survey to reporters and editors at various Malaysian news organizations, yielding 20 valid responses. The findings indicate that AI, including AI-assisted editing and content verification tools, is frequent, although not all of them substitute human journalists. Integrating AI into journalism is thought to make the process more efficient, cut down on work, and improve the quality of the content (Broussard, 2018; Carlson, 2015). But worries about how AI will affect the credibility of news stories, especially in content creation and investigative journalism, continue. Also, news organizations said that ethical issues were important to think about (Diakopoulos, 2019). The results of perceived ease of use (PEOU), human oversight (HO), and ethical concerns (EC) are strong signs that journalists want to use AI. These findings are in line with the TAM model, according to which AI is a beneficial tool whose role in journalism is still secondary, and thus, the role of human editorial judgment cannot be underrated. This paper focuses on the importance of having news companies adopt clear ethical principles, as well as integrating AI in a moderate way, which will enhance the integrity of journalism without compromising professional values.

Keywords: *Artificial intelligence, journalism, news editors, AI integration, Technological Acceptance Model.*

INTRODUCTION

The revolution in AI is bringing a significant shift in the media today. The emerging AI systems, such as Natural Language Processing (NLP), machine-based content creation, and machine learning, are transforming the news-making, distribution, and consumption processes (Chan-Olmsted, 2019). These emerging concepts aim to transform newsrooms into more productive environments, assist editors in decision-making, and deliver more relevant content to audiences.

The Malaysian government is extremely interested in developing the AI industry since it is aware that it plays a role in ensuring that the country becomes more competitive. The Malaysia National Artificial Intelligence (AI) Roadmap 2021–2025 and the National Guidelines on AI Governance and Ethics are two instances of concerted actions to apply AI responsibly and ethically to all fields, including the media (Ministry of Science, Technology and Innovation "MOSTI," 2021, 2024). These pillars are also intended to encourage innovation while addressing such ethical challenges as bias in algorithms, erosion of editorial autonomy, and the issue of data privacy. In the literature, the importance of governance structures to enhance accountability and transparency in AI applications is emphasized, especially in

*Corresponding author: wesam@usim.edu.my

E-ISSN: 2289-1528

<https://doi.org/10.17576/JKMJC-2026-4203-29>

Received: 15 August 2026 | Accepted: 1 September 2026 | Published: 30 September 2026

dealing with the risks of algorithmic bias, editorial freedom, and data protection issues (Shazwin et al., 2025).

There are some potential benefits, but adding AI to journalism also brings many problems. These challenges encompass, but are not confined to, apprehensions regarding job displacement, diminished transparency in algorithm-driven content, and the potential for bias inherent in AI-generated news or misinformation (Sonni et al., 2024; Ismail & Ahmad, 2025). Experts said that AI should be used to help human journalists do their jobs, not to replace them. Human oversight (HO) is essential for maintaining journalistic standards (Ng, 2024). This paper discusses the ways that Malaysian news editors are adopting AI and the issues that they are facing.

PROBLEM STATEMENT

It has been revealed that AI applications in Malaysian newsrooms are not widely used yet, and issues, including the absence of ethical guidelines and practice- and policy-specific frameworks, still exist (Prasetia et al., 2026). In addition, most of the literature on AI in journalism has concentrated on the technical possibilities or moral concerns of technology in the Western world. Literature regarding the impact of AI on changing the operations of newsrooms, the position of journalists, the validity of news, and regulation in Malaysia is less developed (Ng, 2024).

There is also a need to ascertain how media professionals in Malaysia perceive AI, whether they seem to believe that it is a good or a bad thing in their practice, and how they respond to the ethical dilemmas of bias, transparency, and fake news. The proposed research will fill in this gap in knowledge by providing a critical analysis of the current situation and a discussion of the role of AI applications in Malaysian news companies.

RESEARCH QUESTIONS

This study seeks to answer the following research questions:

- 1- What specific AI tools are currently in use within Malaysian newsrooms?
- 2- How widely and for what purposes are AI applications integrated into journalistic workflows?
- 3- In what ways has AI transformed the roles, responsibilities, and workflows of journalists in Malaysia?
- 4- What are the predominant ethical challenges and concerns perceived by media practitioners regarding AI-generated or assisted content?
- 5- How do journalists and editors perceive the impact of AI on the quality, credibility, and trustworthiness of news content?
- 6- What strategic frameworks or best practices can be implemented to ensure AI enhances rather than undermines journalistic standards and integrity?

SIGNIFICANCE OF THE STUDY

a. Academic Significance

The article would be most useful to digital journalism and media studies in that it would represent a gap in the literature, which is both regional and contextual. However, most researchers primarily rely on the experience of the West, which restricts the comprehension of the influence of AI on journalism in other nationalities, including Asia, Africa, and Latin America (Shazwin et al., 2025). The research is dedicated to Malaysia, which gives the study

a rather contextualized location within the scope of the utilization of AI in the newsroom and comparative reports that would contribute to the global academic discourse. (Kanakaner et al., 2022; Kasmani et al., 2017).

b. Practical Significance

The paper offers timely evidence-based suggestions to media practitioners, technology developers, and policymakers in Malaysia on ways of integrating AI into journalism effectively and ethically.

LITERATURE REVIEW

a. AI in Journalism: Global Overview

The Washington Post, Reuters, and The Guardian are all Western newsrooms that have automated reporting, data analysis, and targeting with AI systems (Marconi, 2020).

Despite such improvements, literature is largely concentrated on highly technologically developed countries. The ways these tools are deployed in media environments in Asia and the Global South are under-researched, with particular consideration of countries where other rules, cultures, and economies dominate (Chan-Olmsted, 2019).

b. AI Adoption in Malaysian Newsrooms

AI is beginning to have an impact on the work of newsrooms, but we are unaware of how or to what extent it will be utilized. One of the first attempts to utilize AI is the training program called AI in the newsroom, created by Bernama to show journalists how to use AI tools for content creation, fact-checking, and optimization (The Sun, 2025). Other classes, which are taught by the Malaysian Communications and Multimedia Commission (MCMC), include educating individuals working in the media on how to use apps such as ChatGPT to write and research better (The Sun, 2025). However, there is still a gap in academic research, which lists the exact tools used, their effects on journalistic operations, or the positions of media practitioners. (Al-Zoubi et al., 2025)

This paper aims to bridge this gap by assessing the application of AI by different Malaysian-based media, such as state-run media agencies (such as Bernama and TV AlHijrah) and digital platforms (such as Rnggt.com and Semuanya Bola) operated by independent entities. The study offers empirical data on the situation with AI usage and the various degrees of technological readiness among Malaysian newsrooms, as surveys of journalists and media personnel help to realize.

c. Theoretical Foundation: Technology Acceptance Model (TAM)

Davis (1989) created the TAM, a strong framework for understanding how people in organizations accept and use new technologies. TAM claims that PU and PEOU are the two key factors that influence a person to adopt a new technology.

Studies on the adoption of technology have shown that other organizational factors, like organizational leadership support and adequate infrastructure provision, play a pivotal role in determining whether new technology is successfully implemented or not (Davis, 1989; Venkatesh & Davis, 2000; Venkatesh et al., 2003). These organizational considerations are highly applicable in the media, where the culture of newsrooms, training facilities, and technology is highly diverse.

Using TAM in this research, it becomes possible to approach the discovery of the reasons why Malaysian journalists embrace AI tools systematically, as well as the factors that impede or facilitate the adoption of AI tools.

d. Challenges and Ethical Considerations

Numerous ethical issues are connected to AI-generated content. Transparency, algorithmic bias, data privacy, and the veracity of automated news have been mentioned in the literature on AI and journalism ethics. This demonstrates that bias and the elimination of editorial credibility can be reproduced by AI systems in the absence of HO. Although efficient, automated journalism can reproduce stereotypes unintentionally, misinform, or hide editorial responsibility unless carefully monitored (Ismail & Ahmad, 2025; Zhaxylykbayeva et al., 2025).

The situation in Malaysia further complicates the situation. Due to the diverse political and social history of the country and the history of media control, the ethical applications of AI will have to address the ethical norms of journalism and the cultural sensitivity of the country (Kanakan, 2021). The MCMC has indicated that content related to AI must be more responsible in the online environment. They emphasized that such responsibility must accord with journalistic standards and numerous Malaysian cultural sensitivities (Shazwin et al., 2025).

This paper will explore how Malaysian media professionals perceive these issues and the currently or generally demanded ethical principles and control systems that are needed to ensure the responsible use of AI.

e. Gaps Addressed by This Study

Although the global literature can provide a lot of information about AI and journalism, it does not always have contextual specifics to refer to in Malaysian media systems. This study will fill a few major gaps:

- It investigates how news reporters imagine AI will impact the news, their ethics, and the quality of news coverage.
- It proposes effective action plans and ethics that are unique to the Malaysian media environment.

f. Chosen Media Outlets

The Malaysian media outlets used in this study were selected as follows: Bernama, Majority, Media Mulia Sdn. Bhd., Rnggt.com, Semuanya Bola, Sukanz, and TV AlHijrah. These media contain a large repertoire of Malaysian media, both government-owned and national stations, and independent digital news sources (Dzulkafly & Soo, 2024).

THEORETICAL FRAMEWORK

Designated as TAM by Davis (1989). It is a simple model determining what people desire to do when it comes to utilizing new technology. According to TAM, the intention of a person to use technology depends on two major factors: PU and PEOU. These aspects directly impact Attitude Toward Use (ATU) and, eventually, Behavioral Intention to Use (BIU) of the technology.

Recent studies have demonstrated that conventional TAM constructs, such as PU, PEOU, attitude toward use (ATU), and Behavioral Intention to Use (BIU), are inadequate for

comprehensively understanding adoption behavior regarding complex technologies like AI. Other scholars like Jantan et al. (2025) have proposed the inclusion of additional variables in TAM, i.e., governance, ethical compliance, trust, and organizational preparedness, as a way of better dealing with contextual and ethical elements in the process of adopting AI. This paper is based on this concept by introducing Ethical Concern (EC) and HO as variables influencing the intention of journalists to use AI. These ideas are supported by the ethical hazards, responsibility, and editorial liability of AI-aided news production and are justified by empirical and theoretical sources outlining the importance of AI ethics and accountability to impact adoption behavior (Liu et al., 2026; Mustofa et al., 2025; Shao et al., 2025; Hayes & Burrell, 2026). The extended TAM integrates EC and HO to demonstrate that the usefulness and ease of AI-based tools are not only important in newsrooms but also in the role of professional and ethical concerns.

a. Perceived Usefulness (PU)

PU defines the degree a person has in believing that technology use will assist him or her in carrying out a particular task more or in a better way. In the context of AI in journalism, PU is important because it determines whether journalists believe AI tools can improve news quality, speed up workflows, or make operations run more smoothly. Studies indicate that journalists are more inclined to adopt and incorporate AI tools into their workflows when they perceive these technologies as enhancing their efficiency (Davis, 1989).

b. Perceived Ease of Use (PEOU)

PEOU is the extent to which someone believes using technology will be easy. PEOU is especially useful for assessing how easily journalists can integrate AI tools into their current workflows when AI is used in newsrooms. The more convenient tools journalists have been the ones that do not need such extensive training and are easy to use. The easier the assimilation process, the higher the chances of people continuing to use it (Davis, 1989).

c. Attitude Toward Use (ATU)

ATU reveals the overall attitude of an individual in the usage of technology; it could be either positive or negative. Such a construct reflects the psychological aspects that should be considered during the process of making journalists willing to incorporate AI into their professional processes. The attitude of journalists in relation to the implementation of AI is predetermined by their perception of its usefulness and perceived ease of use, which, in turn, determines their willingness to incorporate such tools into their work (Venkatesh & Davis, 2000).

d. Behavioral Intention to Use (BIU)

BIU is an indication of individuals' future consumption propensity based on their attitudes toward technology. When discussing AI in journalism, BIU measures the intention of journalists to utilize AI tools in the production of the news. TAM claims that both PU and PEOU are key predictors of BIU, which in turn leads to actual use of technology (Davis, 1989).

Conceptual Model: Integration of TAM and Survey Design

The conceptual model, which is developed by this study, is anchored on the TAM constructs of PU, PEOU, ATU, and BIU. It suggests that PU and PEOU play a role in shaping the attitudes

of journalists toward adopting AI, which in turn impacts the attitudes of journalists toward Behavioral Intentions (BI) to adopt AI tools (Davis, 1989; Venkatesh & Davis, 2000). EC and HO are also included as other predictors to explain ethical and supervisory factors peculiar to AI in journalism. This makes sure that the model not only takes into consideration the technological factor but also the professional factor of adoption.

METHODOLOGY

a. Research Design

The paper applied a cross-sectional survey that is quantitative in nature to test the adoption, effect, and ethics of AI tools in Malaysian newsrooms. Standardized data were collected using the survey method and involved a variety of media organizations, which made it possible to analyze the obtained data statistically and draw common conclusions about it in the target population (Tashakkori & Teddlie, 2010).

b. Population and Sample

The population of the study was professionals working in Malaysian news agencies, in particular, people occupied with editorial or content-producing positions. The selected media included Bernama, Majority, and Media Mulia Sdn. Bhd., Rnggt.com, Sukanz, and TV AlHijrah. The sample was limited to news editors and journalists, as well as those employed in media content in the organizations (Tashakkori & Teddlie, 2010).

c. Data Collection

The data were collected through an online survey created with the help of Google Forms. The questionnaire was distributed through email and business contacts so that all participants were able to access it and respond promptly. (Evans & Mathur, 2005). The survey was carried out at the start of 2025.

d. Instrument Design

The survey tool was designed in 6 sections, dependent on the goals of the study:

- 1- AI tools that are being used
- 2- AI applications in newsrooms
- 3- Impact on journalistic roles
- 4- Ethical considerations of AI use
- 5- Effects on news quality and credibility
- 6- Strategies to ensure journalistic integrity

Each item was measured with a five-point Likert scale, with 1 being “Strongly Disagree” and 5 being “Strongly Agree” (Beckett, 2019). Two journalism scholars and a media practitioner reviewed the content to make sure it was valid.

RESULTS AND DISCUSSION

1. Demographic Profile of Respondents

The respondents who were included in the survey were a mix of journalists and editors of different news agencies in Malaysia.

Table 1: Distribution of respondents by news organization

Organization Name	Frequency	Percentage (%)
Bernama	6	30%
Majoriti	2	10%
Malaysiakini	2	10%
Rnggt.com	2	10%
Semuanya BOLA	2	10%
Sukanz	2	10%
TV Al Hijrah	2	10%
Media Mulia	2	10%
Total	20	100.0%

2. Descriptive Statistics

Research Question 1: What specific AI tools are currently in use within Malaysian newsrooms?

Table 2: Distribution of respondents by news organization

AI Tool	No Frequency	Yes Frequency	Total Frequency	Percent (No)	Percent (Yes)	Total Percent
Automated Content Generation (e.g., GPT-based writing tools)	10	10	20	50%	50%	100%
Fact-checking and Misinformation Detection (e.g., ClaimBuster, Full Fact AI)	1	10	20	50%	50%	100%
Video and Audio Transcription (e.g., Otter.ai, Trint)	8	12	20	40%	60%	100%
Personalized Content Recommendations (e.g., IBM Watson, Taboola)	14	6	20	70%	30%	100%
SEO Optimization (e.g., SEMrush, Clearscope)	12	8	20	60%	40%	100%
AI-assisted Editing and Proofreading (e.g., Grammarly, Hemingway Editor)	8	12	20	40%	60%	100%
Automated News Summarization (e.g., Summari, AI-powered news briefs)	10	10	20	50%	50%	100%
AI-based Social Media Monitoring (e.g., Hootsuite Insights, Brandwatch)	10	10	20	50%	50%	100%
Other AI tools used (not mentioned above)	0	20	20	0%	100%	100%

Table 2 shows that the most frequently used tools were AI-assisted editing and proofreading and transcription software and audio transcription, which 60% of the respondents use. It means that Malaysian newsrooms are trying to concentrate their attention on artificial intelligence resources that will enhance faster and more accurate content production. Automated content generation, fact-checking, and misinformation detection were all at 50% usage, as well as automated news summaries. This implies that companies continue to experiment with such tools, but they are not embracing them at a steady rate. However, the application of search engine optimization (SEO), which refers to the use of techniques and tools to improve the visibility and discoverability of online news content in search engine results and custom content recommendation was lower (40% and 30%, respectively), and this implies that AI is not used in every possible activity, such as motivating people to follow up on content and advertise it. 100% of the respondents indicated that they used other AI tools not listed, making it possible that several various or proprietary systems are tailored to individual newsroom requirements. This demonstrates that AI can be applied in both a flexible and creative manner.

Research Question 2: How wide and for what purposes are AI applications integrated into journalistic workflows?

Table 3: Use of AI applications in newsrooms

Survey Item	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Std. Deviation
1. AI tools are widely used in news production in my organization.	4 (20%)	2 (10%)	6 (30%)	8 (40%)	0	2.9	1.165
2. Automated journalism is an essential part of modern newsrooms.	0	0	6 (30%)	14 (70%)	0	3.7	0.470
3. AI is primarily used for content generation in my newsroom.	2 (10%)	6 (30%)	4 (20%)	6 (30%)	2 (10%)	3	1.214
4. AI-driven analytics are important for audience engagement.	0	0	6 (30%)	14 (70%)	0	3.70	0.470
5. AI helps streamline the news verification process.	0	4 (20%)	4 (20%)	12 (60%)	0	3.40	0.821

Table 3 outlines the use of AI and its justification in Malaysian newsrooms. AI tools in production: The question, which stated that "AI tools are widely used in news production in my organization," had a mean score of 2.9, which means that people do not consider that AI is extensively distributed in everyday production activities. About 30% of participants did not care, and 40% of them even held the notion that AI is a mass-market instrument. Automated journalism: Respondents who agreed that automated journalism is relevant to a modern newsroom had a mean score of 3.7. Content generation: Individuals believed that AI could be used to create content, but not that strongly (mean = 3.0). 40% of participants agreed or

strongly agreed. Audience analytics: AI-based analytics is the most rated (mean = 3.7), which, in turn, indicates that the use of AI in news organizations is currently becoming more common to understand their audiences, create more personalized content, and track the levels of their interaction. The statistics show that Malaysian news houses are using AI to do some tasks, but not everything. They are analytics-focused and verification-focused, as well as selective automation-focused, rather than AI generating all their content. Such a tendency shows that AI implementation is at its early stages and that businesses test the most powerful spheres first and then apply it at the mass level.

Research Question 5: How do journalists and editors perceive the impact of AI on news quality, credibility, and trustworthiness?

Table 4: AI's impact on news quality and credibility

Survey Item	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Std. Deviation
1. AI-generated news content is as credible as human-written content.	6 (30%)	6 (30%)	2 (10%)	6 (30%)	0	4.10	.852
2. AI improves the accuracy of news reporting.	4 (20%)	6 (30%)	4 (20%)	6 (30%)	0	4.00	.459
3. AI contributes to the reduction of fake news.	2 (10%)	4 (20%)	6 (30%)	4 (20%)	4 (20%)	3.90	.852
4. AI can generate high-quality investigative journalism.	6 (30%)	8 (40%)	2 (10%)	4 (20%)	0	4.4	.681
5. AI-generated content requires human verification before publishing.	0	2 (10%)	4 (20%)	8 (40%)	6 (30%)	4.5	.513

Table 4 presents the opinions of respondents on monitoring the quality, credibility, and trustworthiness of news in Malaysian newsrooms based on the effects of AI. Only 30% of the respondents who answered this question believed that news generated by AI was as legitimate as any other news generated by human beings, with the majority of the respondents taking the opposite view. On accuracy, the responses were lower: 30% considered AI news reporting to be more accurate, 20% were neutral, and 50% disagreed. To reduce fake news, the answers were more balanced: 20% strongly believed that AI helps reduce misinformation, 20% agreed, 30% were indifferent, and 30% disagreed. The views of most respondents (70%) were evident, with respondents saying that AI could not produce high-quality investigative reporting. There was an overall perception that if any content created by AI is to be released, then it must be verified by a human being before it is published. The number of those in agreement or strong agreement was 70%. To summarize, the findings indicate that Malaysian media workers are not convinced that AI can deliver trustworthy and accurate news so far. This implies that there should be HO and moral security.

3. Correlation and Role-Based Perceptions

Research Question 3: In what ways has AI transformed journalistic roles, responsibilities, and workflows?

Table 5: Impact on journalistic roles and responsibilities

Survey Item	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Std. Deviation
1. AI has significantly altered the roles of journalists.	0	6 (30%)	2 (10%)	6 (30%)	6 (30%)	3.6	1.231
2. Journalists rely on AI for research and information gathering.	0	6 (30%)	10 (50%)	4 (20%)	0	2.9	0.718
3. AI tools assist journalists in reducing their workload.	0	4 (20%)	4 (20%)	8 (40%)	4 (20%)	3.60	1.046
4. AI has increased efficiency in newsroom operations.	0	4 (20%)	6 (30%)	6 (30%)	4 (20%)	3.50	1.051
5. AI reduces the need for human journalists in some areas of reporting.	2 (10%)	10 (50%)	4 (20%)	4 (20%)	0	2.50	0.946

Table 5 provides the views of respondents regarding the roles, duties, and processes of journalists in Malaysian newsrooms transformed due to the adoption of AI. Respondents have given different answers to the question regarding the role of AI in journalism: 60% of the respondents responded in the affirmative or strongly affirmative that AI has transformed the role of journalists, and 30% responded in the negative. Half of the people who answered the question about the use of AI by journalists in research and obtaining information were neutral (30% said no, 20% said yes). Reduction in workload was viewed more favorably: 60% of respondents agreed or strongly agreed that AI contributes to workload reduction (mean = 3.6), which shows the importance of AI in simplifying routine or repetitive tasks. However, respondents who responded to the question indicated that AI has made newsrooms more efficient, with half agreeing (50%) or strongly agreeing (mean = 3.5) that AI had led to increased productivity. Most people (mean = 2.5) did not agree that AI renders it unnecessary to report news by people, and this indicates that most people believe that AI is a helpful tool, though not a replacement. This outcome indicates that Malaysian journalists perceive AI as a possibility to be more productive and have less mundane work, yet it has not penetrated human perception and a creative approach toward reporting on a more fundamental level. The implementation of AI in the newsroom is regarded as complementary rather than a change.

Research Question 4: What ECs do media practitioners have about AI-generated or assisted content?

Table 6: Ethical considerations and AI governance in journalism

Survey Item	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Std. Deviation
1. AI-generated news content raises ethical concerns.	0	2 (10%)	0	12 (60%)	6 (30%)	4.10	0.852
2. Transparency is crucial when using AI in journalism.	0	0	2 (10%)	16 (80%)	2 (10%)	4.00	0.459
3. AI systems can introduce bias into news reporting.	0	2 (10%)	2 (10%)	12 (60%)	4 (20%)	3.90	0.852
4. AI should be monitored to prevent misinformation.	0	0	2 (10%)	8 (40%)	10 (50%)	4.40	0.681
5. News organizations should implement ethical guidelines for AI use.	0	0	0	10 (50%)	10 (50%)	4.50	0.513

Table 6 showed that Malaysian newsrooms were very sensitive to ethical risks, and they wanted to be better regulated in structural ways. Regarding ethical concern, the statement that the news material produced by AI has been deemed to be ethically questionable had an average mean of 4.10, and 90% of the respondents agreed or strongly agreed. Similarly, certain issues were regarded as highly crucial (mean = 4.00), where 90% of respondents who responded affirmed or strongly affirmed that transparency is a challenge in the use of AI in journalism. In addition, bias in AI systems was another area of concern among the respondents (mean = 3.90). The majority (80% of respondents) of participants were in agreement or strongly believed that AI systems were able to influence news reporting. Furthermore, being aware of fake information: 90% of respondents noted that AI systems needed to be monitored to avoid fake information (mean = 4.40). Most notably, the implementation of ethical guidelines received the highest mean score (mean = 4.50), with all respondents agreeing or strongly agreeing. On the whole, one can mention that the results suggest Malaysian media practitioners are very aware of the ethical issues that AI raises in journalism. The need to implement intricate ethical standards that can be used to make newsrooms responsible for the use of AI is quite high, and the emphasis on accountability, low levels of bias, and constant surveillance is also quite self-evident.

4. Multiple Regression Analysis

The multiple regression analysis was conducted to address:

Research Question 6: What factors predict 'journalists' behavioral intention to use AI in the newsroom?

a. Descriptive Statistics

Table 7: Descriptive statistics of the study variables

	Mean	Std. Deviation	N
BI	4.4500	.69585	20
PU	3.3333	.74927	20
PEOU	2.9500	1.13439	20
EC	4.1333	.67017	20
HO	4.1500	.79637	20

The average scores indicated that journalists had a high desire to use AI (BI = 4.45), a great concern with ethics (EC = 4.13), and a great concern with HO (HO = 4.15). The technology was perceived to be helpful (PU = 3.33) and user-friendly (PEOU = 2.95), which means that people were not ready to utilize such technology.

b. Correlations

Table 8: Pearson Correlations Among the Study Variables

		BI	PU	PEOU	EC	HO
Pearson Correlation	BI	1.000	.471	-.020	.862	.703
	PU	.471	1.000	.702	.070	.323
	PEOU	-.020	.702	1.000	-.406	.125
	EC	.862	.070	-.406	1.000	.487
	HO	.703	.323	.125	.487	1.000
Sig. (1-tailed)	BI	.	.018	.467	.000	.000
	PU	.018	.	.000	.385	.082
	PEOU	.467	.000	.	.038	.299
	EC	.000	.385	.038	.	.015
	HO	.000	.082	.299	.015	.
N	BI	20	20	20	20	20
	PU	20	20	20	20	20
	PEOU	20	20	20	20	20
	EC	20	20	20	20	20
	HO	20	20	20	20	20

BI exhibited a strong positive correlation with EC ($r = .862$, $p < .01$) and HO ($r = .703$, $p < .01$), a moderate correlation with PU ($r = .471$, $p < .05$), and no significant correlation with PEOU ($r = -.02$, $p > .05$). It means that such aspects as ethics and oversight are most likely to be linked to the intention of journalists to embrace AI.

c. Model Summary

Table 9: Model summary of the multiple regression analysis

Model	R	R Square	Adjusted R-Square	Std. Error of the Estimate	R Square Change	Change Statistics			
						F Change	df1	df2	Sig. F Change
1	.975a	.952	.939	.17236	.952	73.666	4	15	.000

The summary of the model indicated an R-squared value of 0.952. This implies that a combination of four predictors (PU, PEOU, EC, and HO) is sufficient to explain approximately 95.2% of the variation in journalists' BIU of AI. The instance of the adjusted R² being 0.939 shows that the model fits very well despite the number of predictors.

The fact that the sample size was very small (N = 20) must be viewed with caution; hence, the extremely high R² (0.952). This may result in overfitting. Nevertheless, the model demonstrates the significance of ethical and oversight factors in determining how people will use AI.

d. ANOVA

Table 10: ANOVA results for the multiple regression model

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8.754	4	2.189	73.666	.000b
	Residual	.446	15	.030		
	Total	9.200	19			

The ANOVA table revealed that the regression model was significant, with F (4, 15) = 73.666 and p < .001. It translates to the fact that the predictors (PU, PEOU, EC, and HO) are predictive of differences in intention to use AI by journalists.

e. Regression Coefficients

Table 11: Regression coefficients for behavioral intention to use AI

Model		Unstandardized Coefficients		Standardized Coefficients		Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance VIF
1	(Constant)	-.585	.333		-1.759	.099	
	PU	.314	.088	.338	3.556	.003	.357 2.804
	PEOU	.004	.066	.006	.057	.956	.281 3.555
	EC	.751	.090	.723	8.327	.000	.428 2.336
	HO	.210	.062	.241	3.385	.004	.638 1.567

The regression coefficients were used to indicate the extent to which each predictor influences the intention of journalists to use AI. Among the predictors, **EC** had the greatest significance ($\beta = 0.723$, $p < .001$), demonstrating that ethical issues are highly significant to AI adoption. Similarly, another significant predictor was **PU** ($\beta = 0.338$, $p = 0.003$), which implies that journalists are more inclined to use AI tools when they believe that they will be useful. In addition, the role of **HO** ($\beta = 0.241$, $p = 0.004$) demonstrated the importance of editorial control in AI-assisted journalism. In contrast, **PEOU** was not significant ($\beta = 0.006$, $p = 0.956$), which implies that usability does not significantly influence BI. Finally, the VIF values were all less than 5, which means that there was no multicollinearity and the regression estimates were stable.

f. Collinearity Diagnostics

Table 12: Collinearity diagnostics for the regression model

Model	Dimension	Eigenvalue	Condition Index	(Constant)	Variance Proportions			
					PU	PEOU	EC	HO
1	1	4.844	1.000	.00	.00	.00	.00	.00
	2	.117	6.422	.00	.00	.18	.02	.01
	3	.018	16.470	.13	.08	.02	.03	.83
	4	.015	17.723	.30	.60	.17	.00	.00
	5	.006	29.306	.57	.31	.62	.95	.15

The collinearity statistics showed that the predictors were sufficiently independent, with all VIF values being less than 5.

DISCUSSION

The results of the given paper mean that AI is becoming increasingly prevalent in newsrooms in Malaysia, but it is, as of now, specifically used to tackle certain tasks. AI-assisted editing and proofreading were the most liked features, with 60% of users utilizing the features. This implies that AI is being used to optimize efficiency and the content of the workflow. This is in line with the experiences of global newsrooms, where the primary use of AI is in simple, routine operations instead of having the technology fully automate fundamental journalism functions (Beckett & Yaseen, 2023).

Even though Malaysian newsrooms had already adhered to this technology, they were not ready to fully automate the process of content production and optimization of SEO. It means that they are apprehensive about replacing human inventiveness with the work of AI. Such a biased integration is in line with findings in Indonesia and other environments, where AI uptake is also based on professional values and ethics instead of PU or PEOU (Prasetia et al., 2026).

In line with TAM predictions, PU greatly predicted BI in the regression analysis; journalists were more likely to use AI if they thought it could help them in terms of productivity and efficiency. However, PEOU had no significant impact on BI, which, on the one hand, is consistent with empirical evidence on the use of AI, where PEOU can also have a lower role in the system based on user experience or the degree of its instrumentation (Jiang et al., 2024).

This study found that EC and HO were stronger than PU or PEOU in their prediction of BI. EC turned out to be the most critical predictor in the regression model, which indicated a high degree of connection between the propensity of journalists to use AI and their moral attitude toward the technology. The observation is consistent with current studies of AI acceptance, as they have found that although traditional TAM constructs, such as PU, tend to be connected with acceptance, the PEOU-acceptance relationship is not necessarily the same in AI settings; further contextual variables are needed to understand technology adoption fully (Jiang et al., 2024).

The correlation and descriptive results also put much emphasis on ethics. The questions of responsibility, equity, and editorial autonomy were concerns of Malaysian journalists, since it was believed that AI was threatening the core components of journalism. This was demonstrated in high means in transparency, awareness of bias, and the need to possess ethical guidelines. The importance of this issue is justified by the fact that research

shows that algorithmic bias and unintelligibility can cause biased or discriminatory effects, which hurt the transparency and credibility of news generated with the assistance of AI (Arakhamia & Gersamia, 2025; Fernández-Barrero & Serrano-Martín, 2025; Zhaxylykbayeva et al., 2025).

Another reason is also supported by the fact that HO is overwhelmingly highlighted, which contributes to assuming that journalists perceive AI as something helping them make decisions but not to replace judgment. Instead of substituting human jobs, AI seems as though it is transforming them. Journalists continue to have control of the final product, to make decisions on context, framework, and ethical considerations. This finding corresponds to research that has revealed that AI enhances journalism processes but still needs human intervention to ensure ethical practices and accountability. For example, Lewis et al. (2019) found that journalists rely on automated tools but retain editorial control. Additionally, Carlson (2018) emphasized the need for HO to prevent algorithmic errors. Similarly, Cools and Koliska (2024) argue that transparency and human accountability are necessary for trust in algorithmic news production.

The cautious integration pattern that is witnessed in this research is manifested in the emergence of concerns about newsrooms across the world. According to newsroom professionals, AI would be detrimental to popular trust and journalistic credibility if there were no effective ethical frameworks and governance. Ethical considerations, such as disclosing the use of AI, ways to minimize bias, and editing, are gaining relevance in national and international discussions on the responsible use of AI (Cools & Koliska, 2024; Fernández-Barrero & Serrano-Martín, 2025).

These results contribute to the use of the TAM in journalism by demonstrating that ethical implications and HO are critical variables that affect the behavior of the adoption of AI, which go beyond the traditional TAM dimensions of PU and PEOU. Traditional TAM perspectives emphasize utility and usability as some of the key determinants of technology acceptance (Davis, 1989; Venkatesh & Davis, 2000). Among the recent developments in the AI context, it was shown that additional considerations, such as ethical considerations, transparency, and accountability, have a significant impact on attitudes and BIs (Jiang et al., 2024). Such results suggest that the use of technology is not merely facilitated by the perceived benefits in performance in Malaysian newsrooms; instead, it is greatly influenced by professional ethics and cultural values, which refer to journalism integrity, and the concern about the responsibility in algorithmic decision-making. This is consistent with the results of other researchers who have established that algorithmic non-transparency may hurt trust if there are no solid ethical standards and HO systems in place to safeguard editorial integrity (Ismail & Ahmad, 2025).

IMPLICATIONS

The findings of this paper have considerable implications for the future use and regulation of AI in Malaysian journalism. First, there are AI applications such as AI-assisted editing, transcription, and fact-checking that are becoming more popular, but mostly they are intended to aid in other activities. This suggests that news entities can extend the use of AI beyond common operations to areas like audience interactions, personalized content delivery, and storytelling that are guided by data and carefully evaluate the possible impact on journalism quality (Beckett & Yaseen, 2023).

Second, the paper focuses on the critical role of ethical considerations and HO in the intention of journalists to use AI. The overall results of the mean scores of transparencies, knowledge of bias, and necessity to have ethical principles demonstrate that journalists in Malaysia are quite aware of how AI might impact their working integrity and public confidence. Therefore, news outlets should develop comprehensive editorial guidelines that will govern AI use to ensure that AI technology is used as an addition to journalistic activities, and human judgment will continue to play a significant role in the decision-making process (Ismail & Ahmad, 2025).

Third, the findings indicate that to work effectively with AI systems, journalists require training and capacity-building initiatives to acquire the skills required. These kinds of programs should not only teach people how to use AI but also how to think about the ethical issues, possible biases, and ways to check AI-generated content (Sarrionandia et al., 2025). This will ensure that the integration of AI will improve productivity and credibility in the production of news.

Finally, rules and policies are the impacts of the study. The possibility of false information, biased algorithms, and the production of immoral material can also increase as the number of people using AI increases. Policymakers and regulators of media should develop norms and supervisory frameworks to defend journalistic integrity and maintain trust among the citizenry to ensure that AI tools are applied responsibly and transparently in newsrooms (Cools & Koliska, 2024; Ismail & Ahmad, 2025).

CONCLUSION

This paper elaborates on how AI tools have been adopted and perceived by Malaysian newsrooms, with a complex correlation between the potential of technology and professional prudence. The results indicate that despite the growing use of AI tools, in particular the ones related to efficiency and facilitating the routine reporting process, the implementation of AI tools is still a supplementary rather than a revolutionary practice. Journalists mostly view AI as a tool that can simplify their work and make it more accurate, yet they are afraid of its capacity to maintain credibility, ethical standards, and the level of investigative reporting on its own. This is in line with what other studies on newsroom automation and human-machine collaboration have found (Lewis et al., 2019; Beckett & Yaseen, 2023).

True to the extensions of the TAM, PU turned out to be an influential predictor of journalists' BI in adopting AI, and PEOU had a trivial effect, which fits into wider literature that PEOU may play a minor role in contexts of adopting AI that are more complex (Jiang et al., 2024). Notably, EC and HO were found to be the most important predictors of the intention to adopt AI, which demonstrates that ethical governance, transparency, and accountability are priorities set by Malaysian journalists in their relationships with algorithmic systems. This finding complements the traditional TAM models with the importance of ethical and supervisory factors in professional technology acceptance (Ismail & Ahmad, 2025).

The great concern about algorithmic bias, transparency, and the need to establish clear editorial principles shows that newsrooms should establish strict ethical frameworks and managerial controls that would allow them to maintain trust among the population and ethical standards in the journalism profession (Ismail & Ahmad, 2025). Also, HO is highly valued, which proves that AI is likely to complement human editorial judgment but not substitute it. Other studies on algorithmic transparency and newsroom trust have shared this theme (Lewis et al., 2019).

Based on these results, Malaysian news agency organizations, media practitioners, and policymakers should collaborate to formulate strategies that will facilitate the responsible and context-driven application of AI. These strategies must encompass tailored training on enhancing technical ability and ethical awareness, explicit editorial principles on how AI may be used, and government regulations over the risks of false information, bias, and ambiguous algorithm-based choices. In this way, AI implementation will be able to assist in enhancing the quality of journalism without contradicting professional core values.

To sum it up, this paper demonstrates that AI application in journalism can be perceived not only through the prism of utility and effectiveness but also through the prism of morality, professional values, and HO. The gradual, cautious manner in which Malaysian newsrooms are adopting new technologies suggests they seek to embrace new ideas while safeguarding the fundamental principles of journalistic integrity.

BIODATA

Wesam Almahallawi is a senior lecturer in the Communication Program, Faculty of Leadership and Management, Universiti Sains Islam Malaysia. Wesam, as a professional journalist with an academic and professional track record, has built a career of 15 years with expertise in media work as a professional editor, reporter, TV presenter, lecturer, trainer, and good researcher. Email: wesam@usim.edu.my

Ihab Ahmad Awais is a senior lecturer at the Communication Program, Faculty of Leadership and Management, Universiti Sains Islam Malaysia. His research interest revolves around the media effects and political communication, focusing mainly on the effects of media on social movements, citizenship, and the shaping of public opinion. He has published many academic and media publications, as well as participated in many international conferences. Email: ihab@usim.edu.my

REFERENCES

- Al-Zoubi, O. A., Ahmad, N., & Hamid, N. A. (2025). Artificial intelligence in newsrooms: Case study on Al-Mamlaka TV. *Jurnal Komunikasi: Malaysian Journal of Communication*, 41(1), 35–51. <https://doi.org/10.17576/JKMJC-2025-4101-03>
- Arakhamia, M., & Gersamia, M. (2025). Invisible editors: Impact of AI on media content quality and trust. *Georgian Scientists*, 7(4), 409–421. <https://doi.org/rrg4>
- Beckett, C. (2019). *New powers, new responsibilities: A global survey of journalism and artificial intelligence*. London School of Economics and Political Science. <https://www.lse.ac.uk/media-and-communications/polis/JournalismAI/The-report>
- Beckett, C., & Yaseen, M. (2023). *Generating change: A global survey of what news organisations are doing with AI*. JournalismAI, London School of Economics and Political Science. <https://www.journalismai.info/research/2023-generating-change>
- Bernama. (2025, February 24). Fahmi Fadzil launches “AI in the newsroom” course. *Bernama*. <https://www.bernama.com/en/news.php?id=2395651>
- Bernama. (2025, June 17). NTW 2025: Melaka media practitioners benefit from ChatGPT course organised by MCMC, HRD Corp. *The Sun*. <https://thesun.my/malaysia-news/ntw-2025-melaka-media-practitioners-benefit-from-chatgpt-course-organised-by-mcmc-hrd-corp-AO14290145>
- Broussard, M. (2018). *Artificial unintelligence: How computers misunderstand the world*. MIT Press. <https://doi.org/10.7551/mitpress/11022.001.0001>
- Carlson, M. (2015). The robotic reporter: Automated journalism and the redefinition of labor, compositional forms, and journalistic authority. *Digital Journalism*, 3(3), 416–431. <https://doi.org/10.1080/21670811.2014.976412>
- Chan-Olmsted, S. M. (2019). A review of artificial intelligence adoptions in the media industry. *International Journal on Media Management*, 21(3–4), 193–215. <https://doi.org/10.1080/14241277.2019.1695619>
- Cools, H., & Koliska, M. (2024). News automation and algorithmic transparency in the newsroom: The case of the Washington Post. *Journalism Studies*, 25(6), 662–680. <https://doi.org/10.1080/1461670X.2024.2326636>
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319–340. <https://doi.org/cc6>
- Diakopoulos, N. (2019). *Automating the news: How algorithms are rewriting the media*. Harvard University Press. <https://doi.org/10.4159/9780674239302>
- Dzulkaflly, M. H., & Soo, W. (2024). Sinar Harian’s digital evolution: Strategies for navigating Malaysia’s new media landscape. *International Journal of Creative Multimedia*, 5(2), 17–36. <https://doi.org/10.33093/ijcm.2024.5.2.2>
- Evans, J. R., & Mathur, A. (2005). The value of online surveys. *Internet Research*, 15(2), 195–219. <https://doi.org/10.1108/10662240510590360>
- Fernández-Barrero, M. Á., & Serrano-Martín, C. (2025). Are the media transparent in their use of AI? Self-regulation and ethical challenges in newsrooms in Spain. *Journalism and Media*, 6(3), Article 152. <https://doi.org/10.3390/journalmedia6030152>
- Hayes, R. D., & Burrell, D. N. (2026). Reasonable oversight of the practical, legal, and ethical boundaries impacting human factors trust in automated decision-making. *Public Governance, Regulation and Law*, 2(1), 33–50. [https://doi.org/10.61093/pgrl.2\(1\).33-50.2026](https://doi.org/10.61093/pgrl.2(1).33-50.2026)

- Ismail, O., & Ahmad, N. (2025). Ethical and governance frameworks for artificial intelligence: A systematic literature review. *International Journal of Interactive Mobile Technologies*, 19(14), 121–136. <https://doi.org/10.3991/ijim.v19i14.56981>
- Jantan, A. S. M., Jalil, S. A., & Wan Mohamed, W. M. (2025). Extending the technology acceptance model (TAM) for artificial intelligence (AI) adoption: A conceptual framework. *Journal of Advanced Research in Computing and Applications*, 40(1), 168–179. <https://karyailham.com.my/index.php/arca/article/view/289/887>
- Jiang, P., Niu, W., Wang, Q., Yuan, R., & Chen, K. (2024). Understanding users' acceptance of artificial intelligence applications: A literature review. *Behavioral Sciences*, 14(8), Article 671. <https://doi.org/10.3390/bs14080671>
- Kanaker, O. (2021). Prioritized content of Islamic television channels: An analytical study of Alhijrah TV. *Jurnal Komunikasi: Malaysian Journal of Communication*, 37(1), 244–257. <https://doi.org/10.17576/JKMJC-2021-3701-14>
- Kanaker, O., Abusalah, I. L. Y., Al Qudah, E. M. A. A., Abd Ghani, Z., & Abuhaq, B. (2022). The role of watching historical drama on the values of affiliation and justice: A study on the revival of Ertuğrul. *Jurnal Komunikasi: Malaysian Journal of Communication*, 38(3), 228–243. <https://doi.org/10.17576/JKMJC-2022-3803-14>
- Kasmani, M. F., Yusoff, S. H., Kanaker, O., & Abdullah, R. (2017). The Islamic communication paradigm: Challenges and future directions. *Advanced Science Letters*, 23(5), 4787–4791. <https://doi.org/10.1166/asl.2017.8904>
- Lewis, S. C., Guzman, A. L., & Schmidt, T. R. (2019). Automation, journalism, and human-machine communication: Rethinking roles and relationships of humans and machines in news. *Digital Journalism*, 7(4), 409–427. <https://doi.org/gfz9vd>
- Liu, F., Nah, S., LaPlaca, L., & DeFelice, C. (2026). Socially constructed ethics in AI acceptance: A longitudinal study on AI ethics as the mechanism bridging social persuasion and technology acceptance. *International Journal of Human-Computer Interaction*, 42(14), 11277–11294. <https://doi.org/10.1080/10447318.2025.2590580>
- Marconi, F. (2020). *Newsmakers: Artificial intelligence and the future of journalism*. Columbia University Press. <https://doi.org/10.7312/marc19136>
- Ministry of Science, Technology and Innovation. (2021). *Malaysia national artificial intelligence roadmap 2021–2025 (AI-RMAP)*. <https://www.mosti.gov.my/wp-content/uploads/2022/08/AIR-Map-Playbook-Overall-19102021-RTG.pdf>
- Ministry of Science, Technology and Innovation. (2024). *The national guidelines on AI governance & ethics*. <https://mastic.mosti.gov.my/storage/2024/09/THE-NATIONAL-GUIDELINES-ON-AI-GOVERNANCE-ETHICS.pdf>
- Mustofa, R. H., Kuncoro, T. G., Atmono, D., Hermawan, H. D., & Sukirman. (2025). Extending the technology acceptance model: The role of subjective norms, ethics, and trust in AI tool adoption among students. *Computers and Education: Artificial Intelligence*, 8, Article 100379. <https://doi.org/10.1016/j.caeai.2025.100379>
- Ng, J. (2024). Journalism transformation and challenges in the era of artificial intelligence: Exploring Malaysian journalists' and journalism students' perspectives. *Al-i'lam: Journal of Contemporary Islamic Communication and Media*, 4(2), 1–21. <https://doi.org/10.33102/jicom.vol4no2.111>
- Prasetya, D., Riyadi, B. T., & Irwansyah. (2026). Acceptance of AI in journalism: A TAM model study on digital newsrooms in Indonesia. *Journal of Social Science (JoSS)*, 5(2), 136–144. <https://doi.org/10.57185/315v3w84>

- Prawira, I., Mahamed, M., & Neilson, T. (2026). AI adoption in Indonesian and Malaysian journalism: A comparative mixed-methods study. *Media and Communication*, 14, Article 12395. <https://doi.org/10.17645/mac.12395>
- Sarrionandia, B., Peña-Fernández, S., Pérez-Dasilva, J. Á., & Larrondo-Ureta, A. (2025). Artificial intelligence training in media: Addressing technical and ethical challenges for journalists and media professionals. *Frontiers in Communication*, 10, Article 1537918. <https://doi.org/10.3389/fcomm.2025.1537918>
- Shao, C., Nah, S., Makady, H., & McNealy, J. (2025). Understanding user attitudes towards AI-enabled technologies: An integrated model of self-efficacy, TAM, and AI ethics. *International Journal of Human-Computer Interaction*, 41(5), 3053–3065. <https://doi.org/10.1080/10447318.2024.2331858>
- Shazwin Mat Taib, NNurul Nazleatul Najiha Mohd Nazif, Aini Suzana Ariffin, & Norasikin Saman. (2025). Towards a responsible AI governance framework: Lessons from policy implementation in Malaysia. *Zorig Melong: A Technical Journal of Science, Engineering and Technology*, 8(2), 223–230. <https://doi.org/10.17102/zmv8.i2.025>
- Sonni, A. F., Hafied, H., Irwanto, & Latuheru, R. (2024). Digital newsroom transformation: A systematic review of the impact of artificial intelligence on journalistic practices, news narratives, and ethical challenges. *Journalism and Media*, 5(4), 1554–1570. <https://doi.org/10.3390/journalmedia5040097>
- Sualman, I. (2025). Artificial intelligence (AI) technology and its relevance to the profession and ethics journalism in Malaysia. *Jurnal Kewartawanan Malaysian Press Institute*, 1(1), 130–154. <https://jurnalmpi.com/index.php/jurnal/article/view/7>
- Tashakkori, A., & Teddlie, C. (Eds.). (2010). *The SAGE handbook of mixed methods in social & behavioral research* (2nd ed.). SAGE Publications. <https://doi.org/10.4135/9781506335193>
- Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. *Management Science*, 46(2), 186–204. <https://doi.org/10.1287/mnsc.46.2.186.11926>
- Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, 27(3), 425–478. <https://doi.org/10.2307/30036540>
- Zhaxylykbayeva, R., Burkitbayeva, A., Zhakhyp, B., Kabylgazina, K., & Ashirbekova, G. (2025). Artificial intelligence and journalistic ethics: A comparative analysis of AI-generated content and traditional journalism. *Journalism and Media*, 6(3), Article 105. <https://doi.org/10.3390/journalmedia6030105>