# Journalists' perceptions of the use of Artificial Intelligence (AI) platforms in news production: A case study of Harian Disway Online Media

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## ABSTRACT

This study examines journalists' perceptions of the use of artificial intelligence (AI) in the news production process at Harian Disway, a digital-native media outlet based in Surabaya. Employing a descriptive qualitative approach through in-depth interviews, participant observation, and document analysis, the study explores how journalists interpret, utilize, and evaluate AI within newsroom practices. The findings indicate that AI is primarily used as a technical assistant, particularly for translation, editing, and content optimization, rather than as a substitute for journalistic creative work. Journalists emphasize the necessity of human control because of AI's limitations in factual accuracy and contextual understanding. Ethical concerns also emerge, particularly regarding excessive dependency on AI and the potential erosion of writing skills, particularly in feature writing. Drawing on Diffusion of Innovations Theory and Social Perception Theory, this study demonstrates that AI adoption at Harian Disway is selective, pragmatic, and firmly embedded within the framework of editorial ethics.

**Keywords:** artificial intelligence; digital journalism; journalists' perceptions; diffusion of innovation; online media.

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RESEARCH & PUBLISHING

## 1. INTRODUCTION

The rapid diffusion of generative artificial intelligence (AI), particularly following the public release of large language models since late 2022, has fundamentally reshaped journalistic practices worldwide. News organizations are increasingly integrating AI tools into newsroom routines to assist with writing, translation, summarization, and content optimization. In digital journalism environments characterized by continuous news cycles and intense competition for audience attention, technological efficiency has become a structural necessity rather than a strategic option (Carlson, 2014; Graefe, 2016). AI systems are now embedded within news production processes, performing tasks that were previously carried out exclusively by human journalists (Clerwall, 2014; Kim & Kim, 2021). This development reflects a reconfiguration of journalistic labor in which algorithmic infrastructures are expanding, while editorial responsibility remains formally human-centered. Recent studies further document how generative AI has accelerated newsroom experimentation and reshaped editorial workflows across diverse media systems (Hermida & Simon, 2025; Andersen et al., 2025).

This transformation is particularly visible in digital-native media organizations operating under economic pressure and limited newsroom resources. Automation has shifted from experimental innovation to operational infrastructure, which supports drafting, translation, and content optimization practices. Such integration signals broader structural adjustments within the news industry, where productivity and responsiveness are prioritized in competitive digital markets (Graefe, 2016).

In Indonesia, AI adoption is increasingly evident across national and regional digital media. The accessibility of generative AI platforms has accelerated individual-level experimentation among journalists, who employ these tools to summarize information, translate sources, and structure preliminary drafts. This expansion of use has unfolded alongside professional debates concerning transparency, accountability, and ethical boundaries in AI-assisted journalism.

However, the advancement of AI is not without challenges. Public concerns about its risks and threats persist (Frank et al., 2024). Regulatory initiatives, including national AI strategies and emerging legal frameworks such as the EU AI Act (European Parliament, 2023), reflect attempts to address these concerns and promote responsible AI governance. In journalism, these broader societal concerns intersect with newsroom-specific issues of verification, transparency, and editorial accountability. Limited contextual awareness and the potential generation of fabricated outputs reinforce the need for human supervision (Clerwall, 2014; Kim & Kim, 2021). These vulnerabilities intensify tensions in fast-paced digital newsrooms, where the verification time is often compressed.

Normally, artificial intelligence in journalism is expected to enhance efficiency while preserving editorial accountability, transparency, and professional standards. However, in practice, AI integration occurs within newsroom environments shaped by economic pressure, accelerated production cycles, and uneven institutional regulation. This gap between normative expectations (*das sollen*) and empirical realities (das sein) generates urgent questions regarding how journalists negotiate technological adoption without compromising professional integrity. Understanding this tension is particularly critical in digital-native newsrooms, where speed and productivity often intensify reliance on automation.

Recent scholarship has examined AI adoption across various domains; however, not always within newsroom practice. In higher education, Supriyadi (2024) found that the use of ChatGPT enhances efficiency in drafting and summarizing academic texts but may also contribute to overreliance on automated systems and declining critical engagement. While illuminating the dual impact of AI, such studies situate the technology primarily within educational contexts rather than professional media environments. Within media research, Trattner et al. (2022) highlighted AI-supported content production, personalization, and moderation, emphasizing both technical advantages and ethical risks, particularly regarding bias and accountability. However, their analysis largely operates at the system and institutional levels. Similarly, Kim and Kim (2021) developed a theoretical model explaining user acceptance of robot journalism through psychological and professional determinants. Although valuable in explaining adoption dynamics, such quantitative models do not fully capture how journalists negotiate AI integration within specific organizational cultures and daily newsroom routines.

Therefore, professional responses to AI adoption reflect ambivalence. While automation enhances efficiency, excessive reliance may challenge professional autonomy and reshape journalistic expertise (Carlson, 2014). The coexistence of technological enthusiasm and ethical caution highlights unresolved tensions within contemporary newsroom culture.

Within Indonesia's regional digital media landscape, these tensions are observable at Harian Disway, a digital-native newsroom in Surabaya operating under high-output production demands. Although AI tools accelerate writing processes and support optimization strategies, journalists simultaneously express concerns regarding factual reliability and narrative integrity. Harian Disway represents a relevant analytical case because it is a regional digital-native newsroom operating under high production demands and limited institutional automation infrastructure. Unlike large metropolitan media organizations with dedicated AI development teams, Harian Disway relies primarily on commercially available generative AI platforms adopted by individual journalists. This characteristic makes it a critical site for examining how AI integration unfolds in resource-constrained environments, typical of many developing media systems.

Despite the growing scholarship on artificial intelligence in journalism, important gaps persist. Existing studies largely focus on technologically advanced Western media systems, institutional automation strategies, audience responses, or theoretical acceptance models. Journalists' lived experiences in developing media environments, particularly in regional digital-native newsrooms operating outside major metropolitan centers, remain underexplored. Moreover, limited empirical research investigates how frontline journalists negotiate productivity, ethical responsibility, and professional identity within specific newsroom cultures.

To address these gaps, this study contributes in three ways: (1) it provides empirical evidence from a regional Indonesian digital newsroom that remains underrepresented in existing literature; (2) it integrates diffusion of innovation theory and social perception theory to explain how technological adoption is mediated by professional meaning-making; and (3) it demonstrates that AI integration operates through negotiated boundaries rather than linear technological substitution.

Based on this framework, this study aims to analyze the forms of AI involvement in news production at Harian Disway and to explore journalists' perceptions of the benefits, challenges, and ethical implications of AI usage in journalistic practice.

## 2. METHOD

This study employs a qualitative approach using a case study design to examine how journalists at Harian Disway utilize and interpret artificial intelligence (AI) in the news production process. Rather than positioning AI merely as a technological innovation, this research conceptualizes it as a socio-professional practice embedded within newsroom routines, editorial hierarchies, and ethical considerations.

A qualitative approach was selected because it enables the exploration of subjective meanings attached to technology use in everyday journalistic practice. As Creswell and Poth (2018) argue, qualitative research provides an in-depth understanding of complex social phenomena within their natural contexts. The case study design was chosen to investigate the phenomenon holistically within a real-life newsroom environment (Yin, 2018).

The object of this research is Harian Disway as a media institution, while the unit of analysis consists of its journalists. The study was conducted at Disway News House, a digital media office based in Surabaya, Indonesia. The organization was selected because it actively integrates AI tools into its editorial processes while maintaining explicit human oversight. This context provides an opportunity to examine how AI adoption is negotiated within a professional media environment that seeks to balance technological innovation with journalistic accountability.

A purposive sampling technique was employed to select participants directly involved in AI-assisted news production. Inclusion criteria required participants to (1) be actively employed as reporters or editors, (2) have experience using AI platforms in journalistic tasks, and (3) possess at least one year of newsroom experience to ensure familiarity with institutional workflows. Five journalists participated in the

study, representing multiple hierarchical levels within the newsroom, including reporters, editors, and the editor-in-chief. This multi-level representation enabled triangulation of perspectives across operational and managerial roles. The sample size was determined based on the principle of data saturation, indicated by the recurrence of consistent thematic patterns and the absence of substantially new insights in the final interviews.

Data collection was conducted between July and August 2025 using three complementary techniques to enhance analytical depth and credibility. First, semi-structured in-depth interviews were conducted with all participants. Each interview lasted approximately 45–90 minutes and was audio-recorded with participants' consent. The interviews explored forms of AI usage, perceptions of efficiency gains, experiences of factual or contextual inaccuracies, editorial control mechanisms, ethical reflections, and concerns regarding technological dependency. Particular attention was given to how journalists interpret AI's role—whether as a support tool, a source of risk, or a transformative force within newsroom culture.

Second, participant observation was conducted for approximately 20 hours across several newsroom sessions. The observation focused on how AI tools were incorporated into daily routines, including international news translation, language refinement, SEO optimization, draft preparation, and fact verification. Observation was carried out overtly, with newsroom staff fully aware of the researcher's presence. The researcher adopted a primarily non-interventionist stance to minimize disruption of routine editorial processes and reduce potential observer effects.

Third, document analysis was conducted on 15 published articles identified as AI-assisted, along with internal editorial guidelines and draft materials. The identification of AI-assisted articles followed a dual verification procedure. First, participants explicitly indicated which published articles involved AI tools in drafting, translation, or language refinement. Second, these claims were verified through direct observation of newsroom workflows and examination of draft versions showing AI-generated segments prior to editorial revision. Only articles confirmed through both participant acknowledgment and documentary evidence were included in the document analysis. This procedure strengthened the validity of findings regarding AI involvement.

Data were analyzed using thematic analysis through iterative coding and constant comparison across data sources. The analysis began with open coding to identify recurring concepts such as efficiency, translation accuracy, factual errors, editorial verification, stylistic consistency, and ethical responsibility. These initial codes were then grouped into broader thematic categories through axial coding, allowing patterns to emerge across hierarchical levels and data sources.

The interpretation of findings was informed by Diffusion of Innovations Theory (Rogers, 2003), which explains how technological adoption unfolds within organizational contexts, and Social Perception Theory (Higgins & Bargh, 1987), which helps illuminate how professional meaning-making processes shape journalists' attitudes toward AI. Within this framework, AI adoption is understood not merely as a technical change but as a socially negotiated practice shaped by newsroom norms, editorial authority, and ethical standards.

Empirically, this study situates AI within a human-in-the-loop model of news production. AI tools are primarily used to enhance efficiency—supporting translation, language correction, SEO optimization, and draft preparation—yet all AI-assisted outputs undergo human verification, contextualization, and ethical evaluation before publication. Editorial authority remains fully in the hands of journalists, and ultimate responsibility for published content is unequivocally human. This layered workflow reflects an effort to balance technological augmentation with professional accountability.

To enhance credibility and dependability, all analytical procedures were systematically documented, and triangulation was applied across interviews, observations, and document analysis. Peer debriefing among the authors was conducted throughout the analytical process to review emerging interpretations and reduce individual bias. Given that one of the authors is professionally affiliated with Harian Disway, reflexive measures were implemented to minimize potential conflicts of interest. These measures included maintaining a clear separation between professional responsibilities and research activities, systematically documenting analytical decisions, and applying rigorous triangulation.

As a single-case study, the findings are context-specific and not intended for statistical generalization. However, the study offers analytical insights that may be transferable to similar digital newsroom environments undergoing AI integration. By positioning AI as a supportive yet non-autonomous instrument within a structured editorial system, this research contributes to broader discussions on how journalistic institutions negotiate technological innovation while safeguarding professional standards, ethical responsibility, and human editorial control.

## 3. RESULT AND DISCUSSION

### 3.1. AI as a Technical Assistant in News Production

The transformation observed at Harian Disway reflects a broader spectrum of engagement with generative AI, ranging from enthusiastic adoption to cautious valuation and skepticism (Andersen et al., 2025). Rather than embracing automation uncritically, news organizations integrate AI within defined editorial boundaries that emphasize human oversight and ethical accountability (Palanimurugan & Shanthi, 2025). While automated systems enhance efficiency in routine reporting, they remain limited in contextual interpretation and narrative depth (Palanimurugan & Shanthi, 2025). This suggests that AI adoption in journalism proceeds through selective incorporation rather than deterministic substitution.

The findings reveal that journalists at Harian Disway predominantly position artificial intelligence as a technical assistant rather than a replacement for professional judgment. AI platforms are utilized primarily for routine and efficiency-oriented tasks, including translation, language refinement, keyword retrieval, and search engine optimization. Although several journalists reported employing AI to generate preliminary drafts, these outputs were consistently subjected to manual editing and contextual verification prior to publication.

This selective pattern of adoption reflects key elements of Diffusion of Innovations Theory. AI is embraced in domains where it demonstrates clear relative advantage—namely speed and efficiency—while being restricted in areas requiring interpretive authority and editorial accountability (Rogers, 2003). Rather than indicating technological substitution, AI integration at Harian Disway illustrates negotiated incorporation, in which innovation is adapted to existing professional norms. This extends prior research on algorithmic journalism that identifies automation as primarily supporting routine newsroom functions (Carlson, 2014; Clerwall, 2014) by demonstrating how journalists actively delimit the scope of AI involvement through professional boundary-making.

### 3.2. Accuracy Limitations and the Risk of Misinformation

Despite recognizing AI's functional utility, participants expressed persistent concerns regarding factual reliability and contextual accuracy. Instances of outdated information, fabricated details, and misinterpretations—commonly referred to as "hallucinations"—reinforced journalists' reluctance to treat AI-generated content as authoritative. Verification processes remained firmly human-centered, particularly under tight production deadlines.

These findings highlight the tension between efficiency and epistemic accountability in digital journalism. While AI accelerates information processing, its limited situational awareness necessitates human oversight to preserve credibility. This observation aligns with scholarship emphasizing the ethical and epistemic risks of automated journalism, particularly concerns about algorithmic bias, limited contextual awareness, and the need for sustained human oversight (Diakopoulos, 2019; Zhou et al., 2020). However, the present study advances this discussion by illustrating how journalists' skepticism operates as an internal regulatory mechanism that constrains technological authority within newsroom culture.

### 3.3. Editorial Policy: Human Control as a Core Principle

Editorial leadership at Harian Disway explicitly maintains that final decision-making authority remains with human journalists. AI is formally defined as a support tool and is prohibited from independently determining editorial content. This institutional stance reinforces a normative commitment to human accountability in algorithm-assisted production.

Such emphasis on human control aligns with scholarship arguing that automated journalism requires transparency, auditability, and sustained human oversight to preserve editorial accountability (Diakopoulos, 2019). As algorithmic systems increasingly mediate journalistic labor, questions of professional authority and editorial control intensify, reinforcing the need for clearly defined boundaries of responsibility within newsroom environments (Carlson, 2015).

From the perspective of Social Perception Theory, journalists interpret AI not merely as a technical instrument but as a symbolic actor whose perceived competence and trustworthiness shape adoption patterns (Higgins & Bargh, 1987). The perception that AI lacks contextual sensitivity and ethical judgment constrain its authority within editorial processes. Consequently, technological integration is mediated by professional meaning-making rather than technological capability alone.

### 3.4. Skill Erosion and Professional Identity

Beyond concerns regarding accuracy, journalists articulated apprehension about the long-term implications of AI reliance for professional competence. Feature writing, in particular, was identified as a domain requiring narrative intuition, emotional nuance, and experiential judgment—qualities perceived as resistant to automation.

These concerns underscore the relationship between technological adoption and professional identity. Automation is evaluated not solely in terms of efficiency gains but also in relation to the preservation of journalistic craftsmanship. Resistance to full AI integration therefore reflects boundary defense rather than technological conservatism.

As automated systems increasingly assume responsibility for routine reporting tasks, journalistic labor undergoes structural redefinition (Carlson, 2015). While AI enhances productivity in data-driven and standardized reporting, it lacks the interpretive capacity and contextual reasoning central to narrative journalism (Graefe, 2016). The integration of automation thus shifts, but does not eliminate, professional authority. Instead, editorial responsibility remains anchored in human judgment and accountability (Diakopoulos, 2019).

Collectively, these findings demonstrate that AI adoption in journalism operates as a socially negotiated process rather than a linear trajectory of technological substitution. The case of Harian Disway illustrates how innovation diffusion is filtered through professional norms and institutional expectations. Rather than displacing journalistic labor, automation is incorporated selectively within boundaries defined by human-centered accountability.

### 4. CONCLUSION AND RECOMMENDATION

This study demonstrates that the adoption of artificial intelligence (AI) in news production at Harian Disway is characterized by selective and negotiated integration rather than technological substitution. Journalists employ AI primarily as a technical support tool for translation, language editing, information retrieval, and search engine optimization, while retaining full control over interpretive and editorial decision-making. Although AI enhances workflow efficiency, it does not replace the creative, analytical, and contextual judgment that defines professional journalistic practice. The necessity of manual verification underscores the continuing centrality of human epistemic authority in AI-assisted news production.

The findings reveal that AI adoption is mediated by professional perception and organizational norms. Editorial authority remains firmly human-driven, reflecting deliberate boundary-making processes that restrict algorithmic influence in areas requiring ethical accountability and contextual sensitivity. Concerns regarding the potential erosion of writing skills—particularly in feature journalism—highlight the relationship between technological integration and professional identity. Rather than representing simple resistance to innovation, such concerns indicate active negotiation between efficiency gains and the preservation of journalistic craftsmanship.

The findings extend research on algorithmic journalism by demonstrating that innovation diffusion in developing media environments is mediated by institutional norms and professional boundary-setting, rather than by technological capability alone.

Based on these findings, several recommendations emerge. Media organizations should establish explicit editorial guidelines that clearly define the scope and boundaries of AI usage, including mandatory human verification and transparency principles for AI-assisted content. Strengthening journalists' AI literacy and digital ethics training is essential to ensure that technological adoption reinforces, rather than undermines, professional standards.

Future research should undertake comparative analyses across different media systems to examine how organizational structure, resource availability, and cultural norms influence AI integration patterns. Investigating audience perceptions of AI-assisted journalism is also critical to understanding its implications for credibility and public trust.

Journalism education institutions are encouraged to integrate AI literacy, algorithmic awareness, and digital ethics into curricula while preserving foundational competencies in analytical writing and critical inquiry. Sustaining professional autonomy in the age of automation requires a balanced approach in which technological tools remain subordinate to human editorial responsibility.

**Informed Consent Statement**

All participants were informed about the purpose, scope, and procedures of the study prior to data collection. Informed consent was obtained from all participants before conducting in-depth interviews and participant observation. Participation was entirely voluntary, and participants were assured that their identities, professional positions, and responses would remain confidential and used solely for academic research purposes.

**Authors' Contributions**

M.N.K. and B.W. contributed to the conceptualization and methodology of the study. M.N.K. conducted data collection and prepared the original draft. Both authors performed data analysis, reviewed, and approved the final manuscript.

**Disclosure Statement**

The authors declare that one of the authors, Mohamad Nur Khotib, is a journalist at Harian Disway, which served as the research site for this study. This professional affiliation facilitated access to the newsroom and research participants but did not influence the research design, data collection, analysis, or interpretation of findings. The study was conducted independently and in accordance with academic research ethics.

**Data Availability Statement**

Data are not publicly available due to confidentiality and ethical considerations. Data may be obtained from the corresponding author upon reasonable request.

**Notes on Contributors**

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