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Article

Generative AI and Journalism Ethics: Controversies over ChatGPT

Qingtao Liu [1,2]

[1] *Babeş-Bolyai University (UBB), 400084 Cluj-Napoca, Romania*

[2] *Hebei University of Economics and Business, Shijiazhuang 050067, China*

Abstract: The rise of generative artificial intelligence is reshaping the model of news production. While it enhances the efficiency of content output, it also raises profound ethical concerns. Technological tools can rapidly generate standardized news texts, but the mechanized production model may result in a loss of in-depth thinking and value judgment in news reporting, and could even lead to the creation of false or misleading content in the pursuit of traffic benefits. The core contradictions manifest in three aspects: first, the probabilistic nature of algorithm-generated content conflicts with the fundamental requirement for news accuracy, as the phenomenon of hallucination in language models may present fabricated information as fact; second, the ambiguity in assigning responsibility in human-machine collaboration makes it difficult to trace accountability when misinformation spreads; third, media organizations commonly face a transparency paradox, where the covert use of AI tools not only undermines the public's right to know but also exacerbates the trust crisis.

Keywords: generative artificial intelligence; news production; transparency; ethical dilemmas

1. The Dual Variations of Technological Innovation and Ethical Concerns

1.1. Technological Induction and Changes in News Production Models

The technological characteristics of generative artificial intelligence (GenAI) are fundamentally reconstructing the logic of news production. Operating through probabilistic models and large-scale corpus training, GenAI automates content generation via pattern recognition and text prediction, enabling news organizations to transcend the spatiotemporal constraints of traditional workflows [1]. This paradigm shift drives exponential efficiency gains in information aggregation, multilingual conversion, and data structuring. In breaking news scenarios, algorithmic systems now rapidly capture multi-source inputs—social media streams, government bulletins, sensor data—and generate preliminary report frameworks through structured processing, compressing editorial timelines from hours to minutes [2,3]. Such efficiency recalibrates media industry competition, compelling strategic trade-offs between technological adoption and editorial integrity [4].

The central tension arising from this technological intervention lies in the clash between standardized production processes and journalistic professionalism. GenAI's deterministic logic, bound by training data distributions and algorithmic optimization goals, risks oversimplifying sociocultural nuance. For instance, during fact-checking, its statistical probability-based assessments may neglect contextual polysemy, potentially misclassifying dominant narratives as factual truths while marginalizing underrepresented perspectives in public policy coverage [5,6]. These

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Corresponding: Qingtao Liu (liuqingtao80@126.com)

systemic biases, observed across critical production stages—from source verification to narrative framing—threaten journalism's role as a societal information filter [7,8]. Recent studies further highlight how such flaws amplify misinformation risks in sensitive domains like healthcare, where algorithmic outputs may inadvertently propagate pseudoscientific claims [6,8]. As newsrooms navigate this duality, interdisciplinary research underscores the urgency of ethical guardrails, human-AI collaboration protocols, and digital literacy interventions to mitigate unintended consequences [3,5,7].

1.2. Ethical Risks in Communication Studies

A deeper theoretical dilemma arises from the coupling mechanism between technological tools and the traffic-driven economy. The optimization objectives of generative artificial intelligence naturally align with the operational rules of platform economies, where algorithmic designs often prioritize quantifiable metrics such as user engagement, click-through rates, and time spent on content. This technological characteristic has led to the gradual transformation of news production into a data optimization engineering problem, where the value of a report is reduced to its measurable communicative effectiveness. When media organizations delegate part of their editorial decision-making to algorithmic systems, the framing of public issues may deviate from the actual social needs, shifting towards superficial topics that are more likely to elicit emotional resonance. The algorithmic recommendation systems of social media platforms, with their preference for conflict-driven and sensational content, have contributed to a decline in investigative reporting and an increase in entertainment-oriented content. This structural shift is reshaping the public's information perception.

At the level of basic information processing, generative artificial intelligence indeed exhibits a deterministic advantage that surpasses human efficiency. However, its technological limitations become evident in complex scenarios that require value judgments. Algorithmic systems cannot comprehend the ethical dimensions of news proximity and struggle to balance the timeliness of reporting with the privacy rights of individuals involved. When emergencies involve minors or sensitive groups, technological tools may mechanically follow the maximization principle of data extraction, disregarding the social responsibilities that the media should bear. This asymmetry in capability boundaries creates new gaps in responsibility within human-machine collaboration.

The relationships of rights and responsibilities for news production entities face challenges in reconstruction under technological intervention. The editorial responsibility system in traditional journalistic ethics is based on a clear human subject, whereas the introduction of generative artificial intelligence has led to a fragmentation of the responsibility chain. The autonomous decision-making characteristics of algorithmic systems blur the boundaries of content production entities. When factual errors or ethical violations occur, the allocation of responsibility among technology developers, media organizations, and algorithmic operators lacks a legal or moral foundation. A case study of the European Union's 2023 Digital Services Act reveals that 58% of AI-generated content disputes involve difficulties in identifying responsible parties, and this uncertainty is eroding the accountability framework of the journalism industry.

1.3. Developmental Dilemmas in the Journalism Industry

Based on the aforementioned issues and shortcomings, the asynchronous development between the speed of technological iteration and the construction of ethical norms exacerbates the risks within the industry. The update cycle for generative artificial intelligence models has been shortened to 3–6 months, whereas revisions to journalistic ethical guidelines typically require cross-year negotiations among multiple parties. This disparity in development pace leads to technological applications continually breaking through existing regulatory frameworks, creating a regulatory lag effect. For example, when new deepfake technologies are used to generate virtual statements from interviewees, the current news ethics code, which includes source verification clauses, immediately becomes ineffective because the traditional traceability principle based on human sources no longer applies. The sluggishness in institutional adaptation exposes media organizations to greater risks of ethical violations.

Against the backdrop of technological rational expansion, the very foundation of journalistic professionalism is fundamentally called into question. Generative artificial intelligence not only changes the way content is produced

but also redefines the technical standards of professionalism. When algorithmic systems surpass human journalists in speed, cost, and scale, the unique value of journalistic work requires new theoretical interpretations. Some scholars have proposed the concept of meta-professional skills, emphasizing the irreplaceability of human practitioners in areas such as value prioritization, ethical decision-making, and social impact prediction. This theoretical reconstruction seeks to establish a professional evaluation dimension based on social utility, outside of the technology-driven assessment system.

The power structural changes triggered by technological infiltration require institutional responses. The cost disparities in deploying generative artificial intelligence are intensifying the Matthew effect within the media industry, where organizations with technological resource advantages are forming new content monopolies. Under the competitive pressure of algorithms, small and medium-sized media outlets may be forced to lower content quality standards to maintain operations, leading to a phenomenon where "bad money drives out good" in the news market. This structural imbalance not only threatens the ecological health of the industry but also risks undermining the diversity of information dissemination. Establishing a fair framework for technological access becomes a key institutional demand to safeguard the democratic functions of the press.

2. The Fog of Authenticity and Responsibility

2.1. Authenticity Risks

The deconstructive effect of generative artificial intelligence on the authenticity of news is rooted in the deep conflict between its technical principles and the inherent laws of news production. The operational mechanism of language models is based on statistical probability frameworks, where they predict and generate grammatically correct text sequences by analyzing the co-occurrence patterns of words in massive corpora. The essence of this technological path is to transform information production into a mathematical optimization problem, where the generated content is essentially a probabilistic mapping of the training data distribution, rather than a cognitive construction based on factual verification. When this technology is applied to news production, the standards for assessing information authenticity face a direct challenge. The algorithms of existing generative large language models are unable to distinguish between factual statements and fictional content in the corpus; their generated authenticity merely reflects the statistical consistency between the text patterns and existing data.

The authenticity risks resulting from technological characteristics are particularly significant in complex reporting scenarios. When dealing with public events involving multiple conflicting interests, generative artificial intelligence may mechanically concatenate opposing viewpoints, creating a superficially balanced but ultimately distorted narrative that masquerades as objective. For example, in environmental controversy reporting, the algorithm might treat scientific consensus and pseudo-scientific viewpoints funded by commercial groups equally, because these two perspectives appear with similar frequency in its training data. This technological flaw arises from the system's lack of dynamic assessment capabilities for the credibility of information sources, meaning it cannot build a network of facts through cross-validation, source tracing, and professional judgment as human journalists do. More seriously, language models may generate hallucination phenomena during their production process, fabricating non-existent factual details based on statistical regularities. This technical distortion is especially misleading in specialized fields like science and healthcare reporting, where the use of technical terms can further confuse the audience.

The digital transformation of the news production process has exacerbated the transmission effect of the authenticity crisis. The traditional media editorial control system, which includes three levels of quality control, faces structural breakdown after algorithmic intervention. Generative artificial intelligence can complete the entire process from data collection to report generation in a matter of seconds, and this instant production model compresses the time window required for fact-checking. In practice, news organizations that use AI-assisted production experience a higher rate of error correction requests related to factual mistakes generated by algorithms, while similar errors in human-edited content are relatively rare. Under the combined pressures of timeliness and technological dependence, some media outlets opt to directly publish algorithmic outputs, leading

to the rapid dissemination of information that has not been thoroughly verified. This operational model not only violates the basic principles of news production but also causes media organizations to lose their core social function as information filters.

2.2. Responsibility Attribution and Accountability Issues

The failure of the responsibility attribution mechanism constitutes a deeper institutional crisis. In traditional journalistic ethics, the responsibility chain has a clear subject direction: journalists are responsible for the accuracy of facts, editors oversee content orientation, and media organizations bear the ultimate legal responsibility. The involvement of generative artificial intelligence has transformed this linear responsibility system into a network structure, where multiple parties—technology developers, algorithm operators, media managers, and editorial staff—form overlapping responsibilities. When AI-generated content leads to legal disputes, the existing legal framework struggles to effectively define the responsible party: technology providers often evade responsibility by claiming neutrality of the tools, media organizations emphasize the uncontrollability of algorithmic decisions, and editorial staff lack the substantive review capacity over the technological "black box". This responsibility vacuum resulted in the settlement of most AI-related news lawsuits in the EU region in 2023, as the judicial system has yet to establish universally binding precedents.

The lack of algorithmic transparency further undermines the foundation of accountability systems. The model parameters of generative artificial intelligence are often protected as commercial secrets, and the composition of training data and decision-making logic are not adequately disclosed. When the public questions the factual basis of a particular report, media organizations are often unable to provide specific evidence of the algorithmic content generation process. The traditional journalistic norm of traceability for sources fails completely in this context. This "black box" phenomenon not only hinders error tracing and responsibility attribution but also leads to the dysfunction of social supervision mechanisms. Investigations show that most readers maintain a cautious trust toward AI-generated news, with more practical experience indicating that major concerns are concentrated around the lack of transparency in the content production process. The spread of this trust crisis is weakening the social legitimacy foundation of the journalism industry.

2.3. Institutional and Cultural Context

The disconnect between existing legal frameworks and technological development exacerbates governance challenges. Current media regulations in various countries are mostly based on human-centric assumptions, linking content responsibility to specific and identifiable actors. The autonomous decision-making characteristics of generative artificial intelligence break the foundational assumptions of this institutional design. Taking China's *Cybersecurity Law* as an example, its "who publishes, who is responsible" principle faces interpretive dilemmas when applied to AI-generated content: when an algorithmic system autonomously generates and publishes information without human intervention, does this constitute a legal act of publication? Such legal gaps lead to regulatory dilemmas, where excessive accountability may stifle technological innovation, while a lack of regulation could render rights protection mechanisms ineffective.

The imbalance between the speed of technological iteration and the adaptability of institutions creates a vicious cycle. The model upgrade cycle of generative artificial intelligence continues to shorten, with its functional boundaries expanding into new areas such as deepfake technology and virtual interviews. In contrast, the revision of journalistic ethical standards and legal systems requires a lengthy, multi-party negotiation process. This disparity in development speeds leads to the continuous breaking of existing regulatory frameworks by technological applications, creating a cycle of violation, recognition, and further breakthroughs. For example, when AI begins to generate interview content for virtual characters, traditional journalistic ethical standards that ensure the authenticity of sources immediately become ineffective, as the technology has created a self-sustaining information production loop without human involvement.

3. The Transparency Dilemma and Cognitive Traps in Human-AI Collaboration

The application of generative artificial intelligence in news production has created a new type of information asymmetry structure. The operational logic and output mechanisms of these technological systems function as a "cognitive black box" for most users. This knowledge gap leads media organizations into a dilemma of strategic choices: making the technology transparent might expose algorithmic flaws and weaken public trust, while concealing information about its use violates the journalistic obligation of information disclosure.

The deeper mechanism of the transparency paradox can be deconstructed from the perspective of information economics. The concealment of the extent of algorithmic involvement by media organizations essentially functions as a strategy to maintain the marginal utility of the technology by controlling the release of information. When the audience is unaware of the content's production source, the organization can simultaneously benefit from the efficiency advantages of the technology and the authoritative premium of the content. However, this strategy distorts market signals and undermines the quality certification system of news products as trust commodities. The asymmetric risk-return dynamic forces media outlets, particularly in the early stages of technology adoption, to lean toward conservative strategies, thereby creating a collective action dilemma within the industry.

The cognitive biases induced by the human-AI collaboration model have dual pathways of effect. At the producer level, the algorithmic output generates a cognitive anchoring effect for editors. Neuroscientific studies have shown that the human brain exhibits a suppression phenomenon in the prefrontal cortex when processing content generated by automated systems, leading to a reduction in the cognitive resources allocated for critical thinking. More critically, the superficial reasonableness of the algorithm's output—such as standardized grammar and data citations—can trigger confirmation bias, causing editors to subconsciously treat the technological output as a semi-finished product that has already been validated.

This cognitive trap exacerbates the lack of scrutiny over algorithmic-generated content, as it creates a false sense of reliability and accuracy. Editors, having internalized the output as a credible piece of content, may fail to perform the thorough fact-checking and cross-verification required in traditional journalism. The result is that algorithm-generated content, despite its superficial plausibility, may contain errors or misrepresentations that go unnoticed, further eroding the authenticity of the news production process.

At the institutional level, this transparency dilemma presents a critical challenge in the media's responsibility to provide accurate and trustworthy information. The more opaque the role of AI in content creation, the greater the potential for misinformation to spread without proper accountability. The inherent tension between maintaining the competitive advantages offered by technological efficiency and upholding the ethical standards of journalistic practice forms a significant source of friction within the industry. As AI continues to play an increasingly central role in news production, this paradox of transparency and accountability must be carefully navigated to preserve both public trust and the integrity of the media ecosystem.

4. Conclusions

The integration of generative artificial intelligence into news production presents both significant opportunities and profound challenges. While the technology offers unprecedented efficiencies in content generation, it also brings forth ethical dilemmas surrounding authenticity, transparency, and accountability. The tension between the rapid advancement of AI and the slower pace of institutional adaptation highlights a crucial gap that must be addressed to safeguard the integrity of journalism.

As AI continues to shape the media landscape, the need for clear frameworks governing its use in news production becomes ever more pressing. Transparency, responsibility attribution, and ethical guidelines must be prioritized to ensure that the technology serves the public interest without compromising the core values of journalism. The media industry must adopt strategies that balance innovation with accountability, fostering an environment where both technology and human judgment work in tandem to maintain trust and credibility in the information ecosystem.

In conclusion, while the potential of generative AI in journalism is undeniable, its ethical integration

requires careful consideration and proactive regulatory measures to prevent unintended consequences. Only through thoughtful engagement with these challenges can the media sector navigate the complexities of AI and continue to fulfill its critical role in society.

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