Reconceptualizing Standards for Identifying Copyright Misuse in the Age of Artificial Intelligence: Innovations and Controversies

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Abstract. The widespread application of artificial intelligence technologies in academia has led to new forms and characteristics of academic misconduct. This poses significant challenges to traditional identification standards. This study systematically examines whether it is necessary to reform the criteria for academic misconduct identification in the context of artificial intelligence and the associated controversies. After analyzing the existing regulations concerning artificial intelligence-related academic misconduct, this study proposes the reform of identification standards. The reform consists of several aspects, such as improving legal and regulatory systems and enhancing technical detection and supervision mechanisms and ethical and educational guidance. The aim is to provide theoretical and practical insights, which facilitate the development of academic misconduct identification standards in the artificial intelligence era. In this way, academic integrity and the healthy development of a research environment can be safeguarded.

Keywords: artificial intelligence; academic misconduct; copyright misuse; identification standards; legal regulation

1. Introduction

The rapid development of artificial intelligence technologies has profoundly reshaped the modes of knowledge production and dissemination in academia. In particular, generative artificial intelligence systems have demonstrated unprecedented capabilities in automated content generation, including text drafting, translation, summarization, and even scientific reasoning. These developments have not only improved efficiency but have also introduced fundamental challenges to traditional academic norms and legal frameworks governing authorship, originality, and intellectual responsibility. As Steneck (2006) observes, research integrity encompasses both the conduct of research and the dissemination of findings, both of which are affected by AI integration.

Existing studies have pointed out that artificial intelligence-assisted writing may blur the boundary between legitimate assistance and academic misconduct. Unlike conventional plagiarism, which typically involves direct copying or improper paraphrasing of identifiable sources, AI-assisted content generation often produces syntactically novel yet semantically derivative outputs. Conventional plagiarism has been extensively analyzed as a linguistic and textual practice (Pecorari, 2008), but AI-assisted writing complicates this traditional understanding. This creates a situation in which traditional plagiarism detection tools, which rely heavily on textual similarity, may fail to identify underlying intellectual dependency (Floridi and Chiriatti, 2020; Dwivedi et al., 2023). Consequently, the question of whether AI-assisted writing constitutes a new form of academic misconduct has become a subject of increasing scholarly concern. The prevalence of academic misconduct has been well documented in empirical studies (Fanelli, 2009), and the advent of AI introduces new dimensions to this persistent issue.

From a legal perspective, the issue is further complicated by the ambiguity surrounding authorship and copyright ownership. Traditional copyright frameworks are grounded in the assumption of human creativity and intentionality. However, when content is generated partially or entirely by artificial intelligence systems trained on large-scale datasets, it becomes difficult to determine whether such outputs meet the criteria of originality required for copyright protection (Samuelson, 2023). Moreover, the use of copyrighted materials during model training has been described as a form of "intermediate copying," raising additional concerns about infringement and fair use (Lemley and Casey, 2021).

Within academic contexts, the emergence of artificial intelligence also challenges the existing definitions of ghostwriting and authorship responsibility. Historically, ghostwriting has been associated with undisclosed human contributors. In contrast, artificial intelligence introduces a non-human agent into the authorship process, thereby complicating accountability structures. Traditional ghostwriting, as Stern and Lemmens (2011) argue, involves concealed human authorship, whereas AI introduces a non-human agent into this problematic landscape. As noted by Anderson and Steneck (2011), academic misconduct fundamentally involves misrepresentation of intellectual contribution. In this regard, the use of artificial intelligence may lead to a situation where the apparent author does not fully control or understand the generated content, thereby raising questions about responsibility and integrity.

In addition to legal and conceptual challenges, the increasing accessibility of artificial intelligence tools has also transformed academic practices at the institutional level. Universities and publishers have begun to formulate policies regulating the use of artificial intelligence in academic writing. For example, major scientific journals have explicitly stated that artificial intelligence systems cannot be listed as authors and that their use must be transparently disclosed (Thorp, 2023). Similarly, higher education institutions have introduced guidelines restricting or regulating the use of AI tools in student work. However, these policies remain fragmented and often lack operational clarity.

Given these developments, it becomes necessary to reconsider the standards used to identify academic misconduct in the age of artificial intelligence. Rather than relying solely on traditional criteria such as textual similarity or authorship declaration, a more comprehensive framework is required—one that takes into account the nature of human–machine collaboration, the degree of

intellectual contribution, and the role of artificial intelligence in shaping research outputs.

2. Existing Legal Frameworks and Institutional Policies

The regulation of academic misconduct has traditionally been grounded in national legislation, institutional policies, and disciplinary norms. However, the emergence of artificial intelligence introduces new complexities that existing frameworks are not fully equipped to address. While a number of legal instruments and policy documents provide general guidance on academic integrity, their applicability to artificial intelligence-assisted misconduct remains limited and often ambiguous.

In the Chinese context, a series of regulatory instruments have been established to govern academic conduct, including the Degree Law of the People's Republic of China and the Copyright Law of the People's Republic of China. Notably, the Measures for the Prevention and Handling of Academic Misconduct in Higher Education Institutions (Ministry of Education of the People's Republic of China, 2016) defines key categories of misconduct such as plagiarism, data fabrication, falsification, and misappropriation. Nevertheless, these frameworks are primarily designed to address human-driven misconduct and do not explicitly consider the role of artificial intelligence in knowledge production. As a result, the classification of AI-assisted practices within existing categories remains open to interpretation.

A similar situation can be observed in international contexts. Although global discussions on research integrity have intensified in recent years, there is still no unified regulatory framework that directly addresses artificial intelligence-assisted academic misconduct. Instead, regulatory responses have largely emerged at the institutional and publisher levels. For example, leading academic journals have introduced editorial policies requiring authors to disclose the use of artificial intelligence tools and explicitly prohibiting the attribution of authorship to such systems (Thorp, 2023). The Committee on Publication Ethics (COPE) has issued guidance stating that AI tools cannot be listed as authors and that their use must be disclosed (COPE Council, 2023). Similarly, Nature has established ground rules requiring transparency in the use of AI tools in manuscript preparation (Nature Editorial, 2023). Major publishers such as Elsevier have also introduced policies requiring disclosure of AI use (Elsevier, 2023). These policies reflect an effort to preserve the principle that authorship entails responsibility and accountability, which cannot be delegated to non-human agents.

From the perspective of copyright law, the challenges are even more pronounced. Traditional copyright systems are built upon the notion of human authorship and originality. However, artificial intelligence-generated content complicates both concepts. On the one hand, it is unclear whether outputs generated by artificial intelligence meet the originality threshold required for copyright protection. On the other hand, the training of artificial intelligence models often involves the use of large-scale datasets that may contain copyrighted materials, raising concerns about unauthorized reproduction and fair use (Lemley and Casey, 2021; Samuelson, 2023). These issues highlight a structural gap between existing legal doctrines and the technological realities of artificial intelligence. At the supranational level, the European Union's proposed Artificial Intelligence Act (European Parliament, 2021) represents an effort to establish comprehensive legal standards for AI systems, with implications for academic applications.

In addition to formal legal frameworks, universities and research institutions have begun to formulate internal policies governing the use of artificial intelligence. These policies typically emphasize principles such as transparency, disclosure, and responsible use. For instance, some institutions restrict the use of artificial intelligence tools in student assignments, while others allow limited use under specific conditions. However, these institutional responses vary significantly across regions and disciplines, resulting in a fragmented regulatory landscape. Moreover, many policies lack clear operational criteria, making it difficult to distinguish between acceptable assistance and misconduct in practice.

Another important limitation of existing frameworks lies in their reliance on outcome-based

evaluation. Most regulations focus on the final product of academic work, such as textual similarity or authorship declaration. However, artificial intelligence-assisted misconduct often occurs at the process level, including idea generation, data analysis, and argument construction. Without considering these process-oriented dimensions, current regulatory approaches may fail to capture the full scope of artificial intelligence involvement.

Overall, existing legal frameworks and institutional policies provide an essential foundation for regulating academic misconduct. However, their effectiveness in the context of artificial intelligence remains constrained by conceptual ambiguity, lack of specificity, and limited adaptability. These limitations become more evident when considering the transformation of academic misconduct itself.

Traditionally, academic misconduct has been understood as a set of behaviors driven by human actors, such as plagiarism, fabrication, and ghostwriting. With the introduction of artificial intelligence, however, the nature of misconduct has gradually shifted from purely human-driven practices to hybrid forms involving both human and machine contributions, and, in some cases, to machine-dominated content generation. This transition not only complicates the identification of responsibility but also challenges the applicability of existing regulatory categories.

To better illustrate this evolution, the progression of academic misconduct in the artificial intelligence era can be conceptualized as a continuum from human-centered misconduct to AI-assisted and AI-generated forms, as shown in Figure 1.
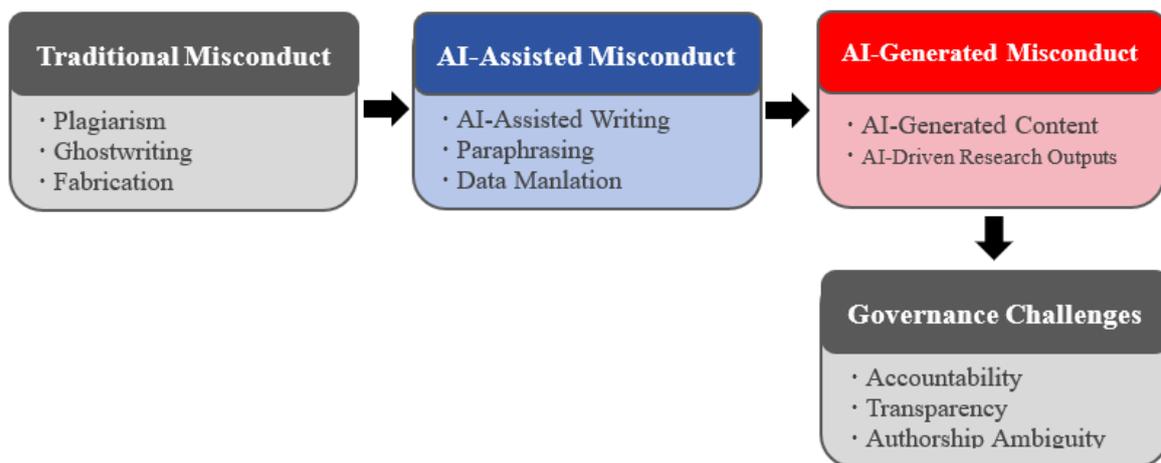

Fig. 1: Evolution of academic misconduct in the AI era

Figure 1 illustrates this shift, in which academic misconduct evolves from traditional human-driven practices toward hybrid forms and, increasingly, machine-dominated patterns. This transformation makes the attribution of responsibility more difficult and exposes the limits of existing regulatory approaches.

3. Innovative Measures for Preventing Artificial Intelligence-Assisted Academic Misconduct

3.1. Improvement of Legal Frameworks and Related Policies

The classification and identification of artificial intelligence-assisted academic misconduct require further clarification at both conceptual and operational levels. Existing regulatory approaches tend to rely on broad principles, yet the increasing integration of artificial intelligence into academic writing makes it necessary to develop more refined and context-sensitive standards.

First, it is essential to distinguish between different forms of artificial intelligence usage based on their actual impact on scholarly output. In many cases, artificial intelligence tools are employed at the

level of expression rather than content. For example, in foreign-language academic writing, authors may use translation systems to convert drafts written in their native language into a target language, or apply language refinement tools to improve grammar, clarity, and stylistic consistency. Such practices, in themselves, do not alter the substantive intellectual contribution of the author. Where the underlying research questions, methodological design, and analytical reasoning remain independently developed, it would be inappropriate to classify these forms of assistance as academic misconduct. A rigid or overly expansive definition would risk discouraging legitimate uses of technology that support academic communication.

Second, greater attention should be paid to the role of independent intellectual contribution. The core issue is not whether artificial intelligence has been used, but how it has been used. If artificial intelligence tools are limited to auxiliary functions—such as editing, formatting, or data visualization—while the main arguments and conclusions are produced through the author's own reasoning, the integrity of authorship is preserved. By contrast, if the principal arguments, analytical frameworks, or lines of reasoning are predominantly generated by artificial intelligence, and the author's role is reduced to selection or assembly, such conduct raises serious concerns. In these situations, the boundary between assistance and substitution is crossed, and the work may be more appropriately regarded as a form of academic misconduct.

Third, the relative dominance of artificial intelligence within the overall structure of the work should be considered as a key evaluative criterion. Rather than focusing solely on isolated instances of AI usage, the assessment should examine whether artificial intelligence plays a decisive role in shaping the central thesis. When AI-generated content occupies a peripheral or supportive position, its impact may be limited. However, when it determines the direction, structure, or conclusions of the research, the author's intellectual ownership becomes diluted. This perspective allows for a more nuanced evaluation that reflects the varying degrees of human–machine interaction.
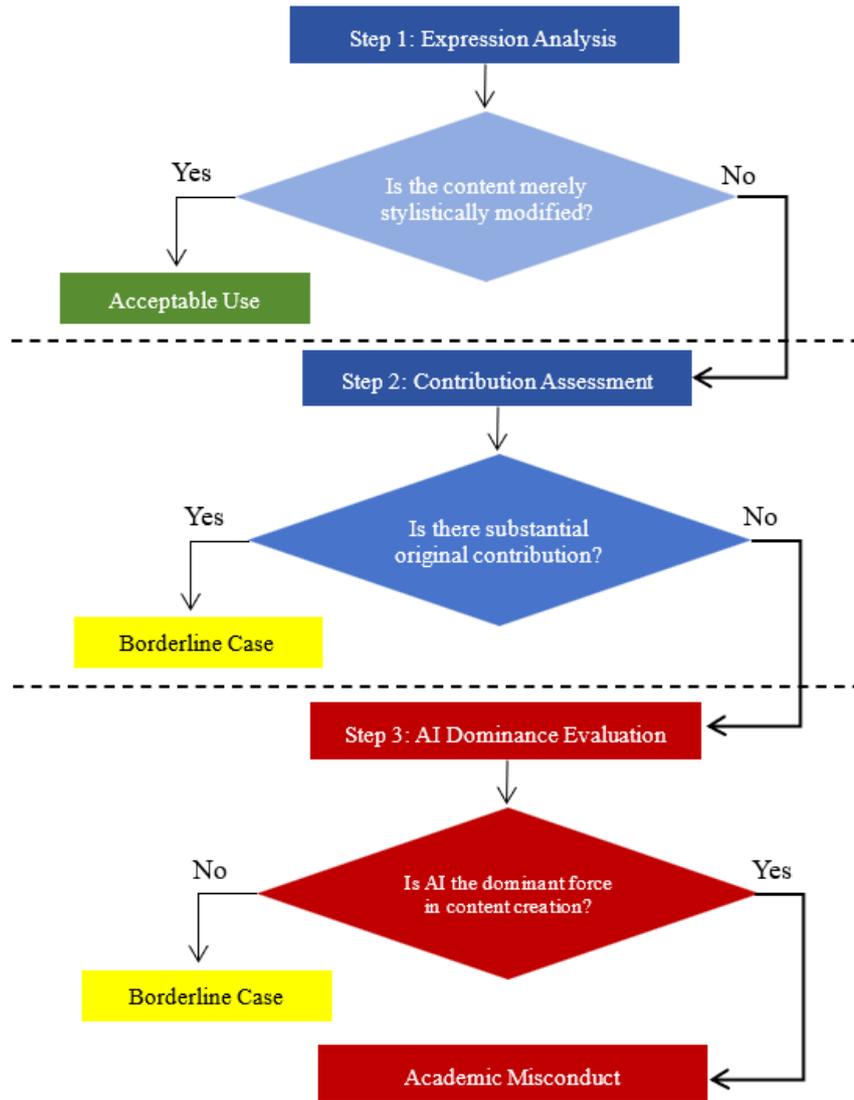
Fig. 2: Framework for identifying AI-assisted academic misconduct

In addition to these criteria, the process of knowledge production should be taken into account. Traditional regulatory frameworks often focus on the final output, yet artificial intelligence can influence earlier stages, including idea generation, data interpretation, and argument development. A process-oriented approach would therefore provide a more comprehensive basis for identifying misconduct, as it captures forms of dependence that may not be visible in the final text alone.

On this basis, regulatory approaches should avoid absolute prohibitions on the use of artificial intelligence. Such prohibitions are difficult to enforce and may hinder the legitimate integration of technological tools into academic practice. Instead, a balanced framework is required, one that preserves academic integrity while recognizing the practical benefits of artificial intelligence. This involves clearly distinguishing acceptable assistance from unacceptable substitution, and establishing transparent disclosure requirements where appropriate.

Based on the above considerations, a structured decision framework for identifying artificial intelligence-assisted academic misconduct is proposed, as illustrated in Figure 2. The framework organizes the evaluation process into sequential steps, enabling consistent and context-sensitive judgments across different scenarios.

As shown in Figure 2, the identification process follows a stepwise logic, including the assessment

of expression modification, intellectual contribution, and the dominance of artificial intelligence in content generation.

To further operationalize the identification criteria, a set of practical classification standards for different types of AI usage is summarized in Table 1.

Table 1: Classification of AI usage and corresponding academic misconduct criteria

Type of AI Usage	Description	Acceptability	Evaluation Criteria
AI-assisted translation	Use of AI tools for translating text without altering original meaning	Acceptable	No change in intellectual content; original ideas remain intact
Language polishing	Use of AI for grammar correction and stylistic improvement	Acceptable	Only surface-level modification; no substantive content generation
AI-assisted paraphrasing	Rewriting content using AI tools	Conditional	Requires verification that original meaning and contribution are preserved
AI-generated content (partial)	AI generates parts of text or analysis	Borderline	Must be disclosed; human retains primary intellectual contribution
AI-assisted data processing	AI used for data analysis or visualization	Acceptable (with disclosure)	Methods must be transparent and reproducible
AI-generated core content	AI produces main arguments, results, or conclusions	Unacceptable	Lack of independent intellectual contribution
Fully AI-generated manuscript	Entire work generated by AI tools	Academic misconduct	No human authorship or accountability

Further development of institutional governance should move beyond general recommendations and focus on the practical implementation of regulatory principles. Universities and academic organizations, given their disciplinary diversity and operational autonomy, are in a position to design context-specific guidelines that reflect the actual conditions of different fields. However, such guidelines should not remain at the level of broad statements; instead, they should provide clear criteria that can be applied in concrete cases.

In particular, transparency requirements should be refined in a more structured manner. It is not sufficient for authors to merely declare that artificial intelligence tools have been used. Rather, disclosures should specify the type of tool, the stage at which it was applied, and the extent of its influence on the research process. For instance, the use of artificial intelligence in data preprocessing, statistical analysis, or text generation should be distinguished, as these functions have different implications for authorship and responsibility. A standardized disclosure format would improve comparability across submissions and facilitate editorial assessment.

At the same time, the role of detection technologies should be reconsidered. Current approaches often treat artificial intelligence detection as a form of verification, yet such tools are inherently limited and should not be regarded as decisive evidence. Instead, they should be integrated into a broader evaluative framework that combines automated screening with expert judgment. This dual approach allows institutions to identify potential risks while avoiding overreliance on technical indicators that may produce false positives or overlook more subtle forms of dependence.

In addition, sanction mechanisms should be differentiated according to the nature and severity of the misconduct. A uniform punitive approach is unlikely to be effective, given the wide range of

artificial intelligence usage scenarios. Minor violations, such as incomplete disclosure, may be addressed through correction or resubmission requirements, whereas more serious cases involving the substitution of intellectual contribution should trigger formal investigation and disciplinary action. Establishing a graded system of sanctions would enhance both fairness and deterrence.

Despite these efforts, existing governance policies still largely overlook the structural impact of generative artificial intelligence. Most regulations remain focused on traditional forms of misconduct and have not fully incorporated the dynamic interaction between human authors and algorithmic systems. As a result, there is a need to develop regulatory approaches that explicitly address generative text production and its implications for authorship, originality, and accountability.

In this regard, a shift toward a process-oriented regulatory model may offer a more effective solution. Rather than evaluating academic work solely on the basis of final outcomes, such a model considers how knowledge is produced, including the role of artificial intelligence at different stages. This perspective makes it possible to identify forms of dependence that are not immediately visible in the final text. At the same time, regulatory measures should remain adaptable, allowing for gradual refinement as artificial intelligence technologies continue to evolve.

Taken together, contemporary academic misconduct can no longer be attributed exclusively to human behavior, nor can it be reduced to purely technological factors. It emerges from the interaction between human intention and machine capability. Accordingly, effective prevention requires the coordinated use of institutional policies and technical tools, supported by clear standards and consistent enforcement.

3.2. Strengthening Technical Detection and Regulatory Oversight

The development of detection technologies for artificial intelligence-assisted academic misconduct should not be limited to improving accuracy alone. More importantly, it requires a clearer understanding of what such technologies can and cannot achieve. While recent advances in natural language processing have made it possible to identify certain patterns associated with machine-generated text, detection remains inherently probabilistic rather than definitive. As Bender et al. (2021) caution, large language models may exhibit biases and generate plausible but unreliable outputs, complicating efforts to detect machine-generated content. Automated content generation is not entirely new; as Graefe (2016) documents, its roots lie in automated journalism, which shares similar challenges for accountability and transparency. Therefore, technological solutions should be designed as part of a broader evaluative system rather than as standalone instruments.

From a methodological perspective, detection strategies may begin with observable features of human linguistic behavior. Human-authored academic texts typically exhibit stable patterns in terms of coherence, argument development, and lexical preference. Transitions between paragraphs tend to follow a logical progression, and the use of terminology is often consistent within a given disciplinary context. In contrast, artificially generated content may display subtle irregularities, such as abrupt shifts in tone, repetition of generic expressions, or inconsistencies in conceptual depth. These features, although not conclusive on their own, can serve as useful indicators when combined in a multi-dimensional analysis.

However, relying solely on surface-level linguistic cues is insufficient. More robust approaches should incorporate deeper structural and semantic features, including argument continuity, citation behavior, and the alignment between research questions and conclusions. In particular, inconsistencies between different sections of a manuscript—such as a mismatch between methodology and results— may reveal underlying dependence on automated generation. By integrating these higher-level features, detection systems can move beyond stylistic analysis toward a more substantive evaluation of intellectual coherence.

To ensure practical applicability, these detection approaches should be embedded within

institutional workflows. Rather than functioning as external tools, detection systems can be integrated into manuscript submission platforms, peer review processes, and editorial decision-making procedures. In this way, automated screening can be combined with expert assessment, allowing for a balanced evaluation that takes into account both technical signals and disciplinary judgment. The relationship between technological detection and institutional oversight is therefore complementary rather than substitutive. A comprehensive technical and governance framework reflecting this interaction is presented in Figure 3.
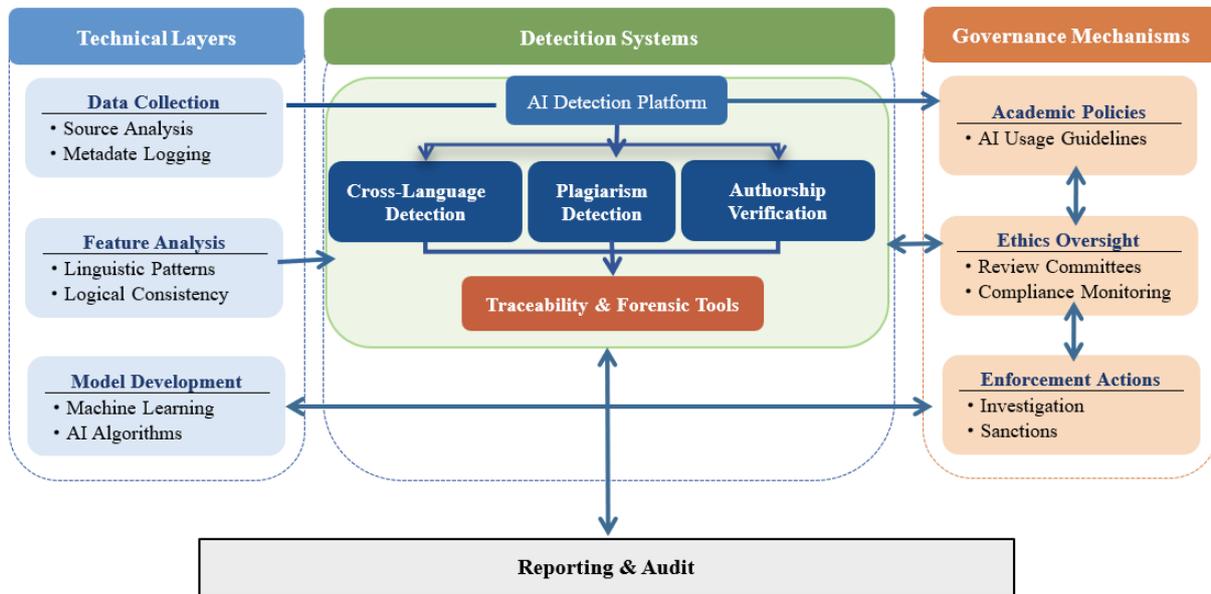

Fig. 3: Integrated technical and governance framework for AI-assisted academic misconduct detection

At the same time, it is necessary to consider the possibility of circumvention. As detection technologies improve, users may adopt strategies such as language switching, paraphrasing through multiple systems, or iterative rewriting to reduce detectable patterns. This makes it essential to develop multilingual and cross-domain detection capabilities. For native-language contexts, detection models should be trained on large-scale corpora that reflect local academic conventions. For second-language users, additional factors—such as language proficiency and cross-linguistic interference—should be taken into account to avoid misclassification.

Furthermore, the effectiveness of detection systems depends on their ability to evolve alongside artificial intelligence technologies. Static rules or fixed thresholds are unlikely to remain effective in the long term. Continuous updating of models, regular evaluation against new datasets, and feedback from real-world cases are necessary to maintain reliability. In this sense, detection should be understood as an ongoing process rather than a one-time solution.

It should also be acknowledged that certain challenges cannot be fully addressed through detection alone. For example, distinguishing between legitimate assistance and inappropriate substitution often requires contextual interpretation that exceeds the capacity of automated systems. In response, research institutions and universities may invest in complementary technological infrastructures. One possible direction is the development of intelligent academic information systems that integrate data sources, analytical tools, and writing environments. Such systems can support both research activities and integrity monitoring, providing a more holistic approach to governance.

In addition, the establishment of traceability mechanisms offers a promising avenue. By recording key stages of the research process—such as literature review, data collection, and analysis—these systems create a verifiable record of knowledge production. Information regarding data sources,

processing methods, and analytical decisions can be preserved in a structured manner. When questions of authorship or originality arise, this record can provide evidence that supports transparent evaluation. Beyond its role in dispute resolution, traceability also encourages more responsible research practices by making the process itself visible.

Taken together, effective regulation of artificial intelligence-assisted academic misconduct requires the integration of technological tools and institutional oversight. Detection technologies can identify patterns and signal potential risks, but their conclusions must be interpreted within a broader framework that considers context, intent, and disciplinary norms. Only through this combined approach can a balance be achieved between technological efficiency and academic fairness.

3.3. Enhancing Independent Authorship Awareness of Academic Writers

In addition to external regulatory and technological measures, the cultivation of independent authorship awareness remains a fundamental component of academic integrity. While detection systems and institutional policies can identify and regulate misconduct, they cannot fully substitute for the internalized ethical standards of academic writers. In this sense, the long-term effectiveness of governance depends not only on control mechanisms but also on the development of responsible research practices.

At the institutional level, universities should move beyond general policy statements and incorporate structured training on the use of artificial intelligence into academic curricula. Such training should not be limited to technical instructions but should also address the ethical and legal implications of artificial intelligence in academic work. By clarifying the boundaries between acceptable assistance and inappropriate substitution, students can develop a more precise understanding of authorship responsibility. In particular, guidance should emphasize that the use of artificial intelligence does not diminish the requirement for independent intellectual contribution.

In practical terms, writing training programs may be designed to strengthen the capacity for independent reasoning and argument construction. Exercises conducted under controlled conditions, such as time-limited writing tasks without the assistance of artificial intelligence, can help students develop their own analytical voice. These practices are especially important in an environment where automated tools are readily available, as they ensure that fundamental academic skills are not replaced by technological convenience.

At the same time, it is necessary to position artificial intelligence appropriately within the academic workflow. Artificial intelligence should be understood as a supporting tool for tasks such as information retrieval, language refinement, and data processing, rather than as a substitute for idea generation or critical analysis. This distinction is essential, as the misuse of artificial intelligence often arises not from intentional misconduct but from a misunderstanding of its proper role. This aligns with the ethical framework proposed by Floridi et al. (2018), which emphasizes human responsibility in human–machine collaborations.

Furthermore, fostering independent authorship awareness requires continuous engagement rather than one-time instruction. Academic institutions may consider integrating this topic into multiple stages of education, including undergraduate training, postgraduate supervision, and research practice. Supervisors and mentors also play a crucial role in guiding early-career researchers, helping them to develop responsible habits in the use of artificial intelligence tools.

Ultimately, the relationship between human authors and artificial intelligence should be understood in terms of complementarity rather than replacement. While artificial intelligence can enhance efficiency and support certain aspects of academic work, the responsibility for knowledge production remains with the human author. Strengthening this awareness is therefore essential for maintaining the integrity and credibility of academic research in the age of artificial intelligence.

4. Conclusion

The increasing integration of artificial intelligence into academic practices has fundamentally challenged traditional standards for identifying academic misconduct. Rather than representing a simple extension of existing issues, artificial intelligence introduces new forms of interaction between human authors and technological systems, which cannot be adequately addressed by conventional regulatory frameworks.

This study has examined the limitations of current legal and institutional approaches and has proposed a more differentiated framework for evaluating artificial intelligence-assisted academic misconduct. By distinguishing between levels of AI involvement—ranging from auxiliary assistance to substantive substitution—it becomes possible to move beyond rigid classifications and develop more context-sensitive criteria. In particular, the analysis highlights the importance of assessing intellectual contribution, the dominance of artificial intelligence within the structure of a work, and the role of the research process in shaping final outputs.

Building on this perspective, the study has outlined a multi-layered governance approach that integrates legal regulation, technical detection, and ethical awareness. Legal frameworks provide the necessary normative foundation but require further refinement to address the specific characteristics of artificial intelligence. Detection technologies offer useful tools for identifying potential risks, yet their effectiveness depends on their integration with institutional evaluation and expert judgment. At the same time, the cultivation of independent authorship awareness remains essential, as long-term academic integrity cannot rely solely on external control mechanisms.

The findings suggest that the regulation of artificial intelligence in academic contexts should not be based on absolute prohibition, but on a balanced understanding of its functions and limitations. Artificial intelligence can support certain aspects of academic work, particularly in information processing and linguistic expression, yet it cannot replace the intellectual responsibility of the human author. Attempts to rely exclusively on technical detection are likely to encounter limitations, as adaptive strategies will continue to emerge in response to new tools.

In this sense, the governance of artificial intelligence-assisted academic misconduct should be understood as an evolving process rather than a fixed set of rules. Continuous adjustment of legal standards, technological systems, and educational practices will be necessary to maintain the integrity of academic research in a rapidly changing environment. Future research may further explore empirical validation of detection methods and the development of operational criteria that can be applied across different disciplines.

References

Anderson, M. S., & Steneck, N. H. (2011). The problem of plagiarism. *Urologic Oncology*, 29(1), 90–94. https://doi.org/10.1016/j.urolonc.2010.09.013

Bender, E. M., Gebru, T., McMillan-Major, A., & Shmitchell, S. (2021). On the dangers of stochastic parrots: Can language models be too big? In *Proceedings of the 2021 ACM Conference on Fairness, Accountability, and Transparency* (pp. 610–623). https://doi.org/10.1145/3442188.3445922

Dwivedi, Y. K., Kshetri, N., Hughes, L., Slade, E. L., Jeyaraj, A., Kar, A. K., Baabdullah, A. M., Koohang, A., Raghavan, V., Ahuja, M., Albanna, H., Albashrawi, M., Alalwan, A. A., & Wright, R. (2023). So what if ChatGPT wrote it? Multidisciplinary perspectives on opportunities, challenges and implications of generative conversational AI for research, practice and policy. *International Journal of Information Management*, 71, 102642. https://doi.org/10.1016/j.ijinfomgt.2023.102642

Fanelli, D. (2009). How many scientists fabricate and falsify research? A systematic review and meta-analysis of survey data. PLoS ONE, 4(5), e5738. https://doi.org/10.1371/journal.pone.0005738

Floridi, L., & Chiriatti, M. (2020). GPT-3: Its nature, scope, limits, and consequences. *Minds and Machines*, 30(4), 681–694. https://doi.org/10.1007/s11023-020-09548-1

Floridi, L., Cowls, J., Beltrametti, M., Chatila, R., Chazerand, P., Dignum, V., Luetge, C., Madelin, R., Pagallo, U., Rossi, F., Schafer, B., Valcke, P., & Vayena, E. (2018). AI4People—An ethical framework for a good AI society: Opportunities, risks, principles, and recommendations. *Minds and Machines*, 28(4), 689–707. https://doi.org/10.1007/s11023-018-9482-5

Graefe, A. (2016). *Guide to automated journalism*. Tow Center for Digital Journalism, Columbia University.

Lemley, M. A., & Casey, B. (2021). Fair learning. *Texas Law Review*, 99(4), 743–785.

Ministry of Education of the People's Republic of China. (2016). *Measures for the prevention and handling of academic misconduct in higher education institutions*. http://www.moe.gov.cn

Pecorari, D. (2008). *Academic writing and plagiarism: A linguistic analysis*. Continuum.

Samuelson, P. (2023). Generative AI meets copyright. *Science*, 381(6654), 158–161. https://doi.org/10.1126/science.adi0656

Steneck, N. H. (2006). Fostering integrity in research: Definitions, current knowledge, and future directions. *Science and Engineering Ethics*, 12(1), 53–74. https://doi.org/10.1007/s11948-006-0006-y

Stern, S., & Lemmens, T. (2011). Legal remedies for medical ghostwriting: Imposing fraud liability on guest authors of ghostwritten articles. *PLoS Medicine*, 8(8), e1001070. https://doi.org/10.1371/journal.pmed.1001070

Thorp, H. H. (2023). ChatGPT is fun, but not an author. *Science*, 379(6630), 313. https://doi.org/10.1126/science.adg7879

COPE Council. (2023). *COPE position statement: Authorship and AI tools*. Committee on Publication Ethics. https://publicationethics.org

Nature Editorial. (2023). Tools such as ChatGPT threaten transparent science; here are our ground rules for their use. *Nature*, 613, 612. https://doi.org/10.1038/d41586-023-00191-1

Elsevier. (2023). *Elsevier policy on the use of AI in scientific writing*. https://www.elsevier.com

European Parliament. (2021). *Regulation laying down harmonised rules on artificial intelligence (Artificial Intelligence Act)*. https://eur-lex.europa.eu