

Ali Mursid

s10805-024-09580-1

 Academic Integrity

Document Details

Submission ID

trn:oid:::29184:115430936

Submission Date

Oct 4, 2025, 12:12 PM GMT+7

Download Date

Oct 4, 2025, 12:17 PM GMT+7

File Name

s10805-024-09580-1.pdf

File Size

2.3 MB

27 Pages

9,953 Words

59,902 Characters

15% Overall Similarity

The combined total of all matches, including overlapping sources, for each database.

Filtered from the Report

- Bibliography
- Quoted Text
- Cited Text
- Small Matches (less than 100 words)

Exclusions

- 4 Excluded Matches

Match Groups

-  **4 Not Cited or Quoted 15%**
Matches with neither in-text citation nor quotation marks
-  **0 Missing Quotations 0%**
Matches that are still very similar to source material
-  **0 Missing Citation 0%**
Matches that have quotation marks, but no in-text citation
-  **0 Cited and Quoted 0%**
Matches with in-text citation present, but no quotation marks

Top Sources

- 0%  Internet sources
- 15%  Publications
- 0%  Submitted works (Student Papers)

Integrity Flags

0 Integrity Flags for Review

Our system's algorithms look deeply at a document for any inconsistencies that would set it apart from a normal submission. If we notice something strange, we flag it for you to review.

A Flag is not necessarily an indicator of a problem. However, we'd recommend you focus your attention there for further review.

Match Groups

- 
4 Not Cited or Quoted 15%
 Matches with neither in-text citation nor quotation marks
- 
0 Missing Quotations 0%
 Matches that are still very similar to source material
- 
0 Missing Citation 0%
 Matches that have quotation marks, but no in-text citation
- 
0 Cited and Quoted 0%
 Matches with in-text citation present, but no quotation marks

Top Sources

- 0%  Internet sources
- 15%  Publications
- 0%  Submitted works (Student Papers)

Top Sources

The sources with the highest number of matches within the submission. Overlapping sources will not be displayed.

- 1

Publication

Nadi Suprpto, Nurhasan, Roy Martin Simamora, Ali Mursid, M. Arif Al Ardha. "Ac... 15%



Academic Integrity vs. Academic Misconduct: A Thematic Evolution Through Bibliometrics

Nadi Suprpto¹  · Nurhasan¹  · Roy Martin Simamora²  · Ali Mursid³  · M. Arif Al Ardha¹ 

Accepted: 21 October 2024

© The Author(s), under exclusive licence to Springer Nature B.V. 2024

Abstract

This study analyzes predominant themes and disciplinary and methodological trends in academic integrity and misconduct research. It utilizes bibliometric analysis to explore prevalent themes and interdisciplinary intersections within discussions based on Scopus metadata. R Studio, which uses *biblioshiny* software, is employed to visualize trends. The results indicate the presence of 769 final documents (627 on academic integrity and 142 on academic misconduct) related to the research focus up to 2023. Visual representations show complex relationships and theme changes. The analysis uncovers connections between academic integrity and misconduct, emphasizing criteria such as plagiarism and the misuse of artificial intelligence (AI) tools. Distinct thematic clusters emerge, showcasing diverse dimensions and the impact of AI on misconduct. Interconnected research endeavors underscore dominant themes like cheating and ethical considerations. Thematic evolution reflects shifts from integrity-misconduct dichotomies to emergent issues like online fraud. Disciplinary contributions highlight the interdisciplinary nature of the discourse, drawing insights from social sciences, medicine, arts, business, psychology, and computer sciences. The detailed systematic literature review and survey design, which are dominant in research on academic integrity and misconduct, help build audience confidence. Some insights into academic integrity and misconduct via typical categories or terms have also been illustrated for the insightful reader.

Keywords Academic integrity · Academic misconduct · Bibliometric · Thematic evolution

✉ Nadi Suprpto
nadisuprpto@unesa.ac.id

¹ Universitas Negeri Surabaya, Surabaya, Indonesia

² Institut Seni Indonesia Yogyakarta, Bantul, Indonesia

³ STIE Bank BPD Jateng, Semarang, Indonesia

Introduction

Academic Integrity vs. Academic Misconduct

Academic integrity refers to the ethical foundation upon which scholarly pursuits are built, encompassing honesty, trust, and responsibility in academic endeavors (McCabe & Treviño, 1993; Poff, 2023; Tauginienė, 2016). It pertains to upholding principles of fairness, originality, and proper attribution in research, writing, and other academic activities. As a fundamental component of scholarly practice, academic integrity ensures the credibility and reliability of academic work, fostering an environment conducive to learning, innovation, and knowledge dissemination (Cutri et al. 2021; Fishman, 1999; Huybers et al. 2020).

Conversely, academic misconduct encompasses a range of unethical behaviors that violate the principles of academic integrity, undermining the credibility and validity of scholarly pursuits (Bowers, 1966). This includes but is not limited to plagiarism, fabrication of data, cheating on exams, and unauthorized collaboration (McCabe et al. 2006). Academic misconduct erodes trust within academic communities and compromises the integrity of research outcomes and scholarly publications, posing significant threats to the integrity and reputation of educational institutions and the broader academic enterprise (Garcia, 2023).

At the heart of maintaining the ethical standards of academia is the distinction between academic integrity and academic misconduct. Upholding academic integrity fosters a culture of trust and respect among scholars (Fishman, 1999). However, it is the responsibility of institutions to address and prevent academic misconduct. By promoting awareness, education, and the implementation of effective policies and procedures, they can cultivate environments that prioritize academic integrity and mitigate the incidence of academic misconduct, thereby safeguarding the integrity and reputation of the academic community as a whole.

A systematic review and meta-analysis conducted in 2009, analyzing survey data, revealed that approximately 2% of scientists acknowledged engaging in falsification, fabrication, or modification of data on at least one occasion (Fanelli, 2009). In multiple countries, numerous instances of academic misconduct have emerged. For instance, in 2016, Springer Nature retracted 58 papers across seven journals, primarily authored by researchers based in Iran, due to evidence of authorship manipulation, peer-review manipulation, and/or plagiarism (Callaway, 2016; Retraction Watch, 2016). Similarly, at the outset of 2024, a physicist in the USA was found guilty of “research misconduct” pertaining to his work on purported superconducting materials (Subbaraman, 2024). More recently, “Retraction Watch” reported allegations from Malaysian researchers against an Indonesian dean who had appended numerous colleagues’ names to papers without their consent. Despite Indonesia’s establishment of ANJANI (Indonesian Academic Integrity Platform) to address such issues, which is a portal administered by the Ministry of Research, Technology, and Higher Education by regulations on academic integrity, challenges persist. The platform aims to promote education, evaluation, classification, and sanctions concerning violations of academic integrity (Kemdikbud, 2024).

Bibliometric Research of Academic Integrity and Academic Misconduct

Bibliometric research offers a valuable lens to explore the scholarly landscape surrounding academic integrity and misconduct. Bibliometric studies provide insights into the breadth and depth of research by systematically analyzing publication patterns, citation networks, and thematic developments in the academic literature (Rafols et al., 2010). Such analyses enable researchers to identify key contributors, influential works, and emerging trends, facilitating a comprehensive understanding of the evolving discourse on academic integrity and misconduct (Ali et al., 2021). Through bibliometric techniques, researchers can uncover collaboration patterns among scholars, disciplinary differences in research emphasis, and shifts in research focus over time, thus shedding light on the multifaceted nature of academic integrity and misconduct within the scholarly community.

Moreover, bibliometric analyses are not just academic exercises but powerful tools that can shape evidence-based policy and practice to promote academic integrity and prevent misconduct. By identifying gaps in the literature and areas of research underrepresented in scholarly discourse, bibliometric studies can guide the allocation of resources and the development of targeted interventions to address pressing issues related to academic integrity (Leydesdorff, 1987). Furthermore, bibliometric indicators, such as citation counts and impact metrics, can be harnessed to evaluate the effectiveness of interventions and initiatives to foster ethical behavior in academia (van Raan, 2005). Thus, bibliometric research enriches scholarly understanding of academic integrity and misconduct and equips us with the tools to foster integrity and accountability within the academic community.

Research Objectives

- What are the predominant themes in academic integrity and academic misconduct research as revealed through bibliometric analysis, and how have these themes evolved over time?
- How do different disciplinary fields contribute to the discourse on academic integrity and academic misconduct, and what are the key interdisciplinary intersections identified through bibliometric analysis?
- What methodological trends characterize research on academic integrity and academic misconduct, and how do these trends influence the understanding and prevention of unethical behaviors in academia, as elucidated by bibliometric data analysis?

Methods

Methodology

The study utilized bibliometric analysis, a well-established method for analyzing extensive scholarly data that has become increasingly essential in academic research (Ali et al., 2021; Mohan & Murugan, 2023; Panigrahy & Verma, 2024). By examining bibliographic details, citation patterns, and publication trends, researchers acquire invaluable insights into

the evolution of scientific fields, the impact of individual publications, and the network of collaborations among scholars. In studies conducted by Hidaayatullaah and Suprpto (2022), Maani and Rajkumar (2023), Md Radzi et al. (2024), and Zakhiah et al. (2021), bibliometric analysis acted as the linchpin for unraveling intricate relationships within their respective domains.

By applying advanced statistical techniques in conjunction with state-of-the-art visualization tools, these knowledgeable researchers are able to reveal complex patterns hidden in datasets, uncover emerging research paradigms, and make a substantial contribution to the frontier of knowledge in their respective fields. This careful methodological framework not only increases the resilience of research projects but also fosters an atmosphere of transparency and reproducibility, which in turn expedites the dissemination of scientific discoveries to a broader range of stakeholders and communities.

Research Process and Metadata Collection

The investigation into academic integrity vs. academic misconduct utilized data from the Scopus dataset. By employing specific keywords in the metadata search:

- TITLE (“academic integrity”), 627 documents pertaining to this subject were analyzed.
- TITLE (“academic misconduct”), 142 documents pertaining to this subject were analyzed.

Following a detailed inclusion and exclusion process outlined in Fig. 1, a total of 769 articles were selected for comprehensive analysis in this study. This selection process ensured that the data under scrutiny were relevant and of high quality, thus enhancing the credibility of our findings.

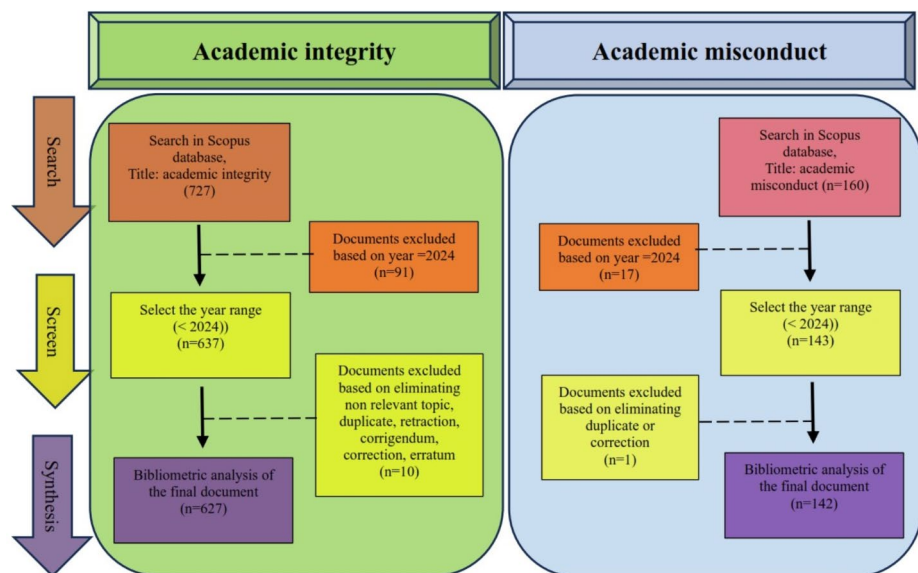


Fig. 1 Research process and metadata collection

Data Analysis

The metadata entries are archived in .csv format to facilitate further analysis (Deda et al., 2024; Nisaa et al., 2023). We employed the powerful *bibliometrix* R with *biblioshiny* to translate the authorship patterns, prolific authors, countries of origin, co-occurring keywords, and the most cited documents related to the topic (Aria & Cuccurullo, 2017). This robust methodology ensures the reliability and accuracy of our findings.

Interestingly, our analysis revealed notable disparities in the temporal dimensions of academic integrity and academic misconduct, as evidenced by the differing starting periods of 1966 and 1986. This temporal contrast suggests a significant shift or emergence in scholarly discourse and attention toward academic integrity and misconduct issues, particularly around the 1980s. This temporal context is crucial for understanding the evolution and trajectory of scholarly discussions and interventions addressing academic integrity challenges.

Moreover, our findings also shed light on the dynamic nature of academic misconduct, as reflected in its higher annual growth rate compared to documents focused on academic integrity. This disparity underscores the urgency and complexity of combating academic misconduct, necessitating proactive measures and robust institutional frameworks to safeguard academic integrity and uphold scholarly standards.

In addition to temporal trends, our analysis delved into various facets of scholarly output, including authors' keywords, references, average document age, and average citations per document. These insights provide an understanding of the scholarly landscape surrounding academic integrity and misconduct, offering valuable insights for researchers, policymakers, and educators alike.

Results and Discussion

The Predominant Themes in Academic Integrity and Academic Misconduct Research

Overall, studies on academic integrity and academic misconduct have increased annual document production (Fig. 2). The trend has also lined with the findings of Winardi et al. (2017). However, research on academic integrity is significantly greater than academic misconduct. Starting in the 2000s, both themes began attracting researchers' attention. The peak occurred in 2016 when studies on academic integrity significantly increased. Despite fluctuations, the number of documents continued to grow until 2023. Research on both topics is expected to increase, with academic integrity likely to remain more prominent than academic misconduct. The increasing academic integrity and misconduct highlights the importance of ethical issues in the academic community to underscore a commitment to ethical standards that will likely shape research practices and policies well into the future.

The results of the co-occurrence network (Fig. 3) illustrate the interconnection between academic integrity and academic misconduct. Academic integrity resulted in four clusters with one dominant cluster. The top ten occurrences in cluster one are academic integrity, plagiarism, cheating, academic dishonesty, academic misconduct, higher education, ethics, covid-19, and students. Meanwhile, academic misconduct resulted in seven clusters, with two dominant clusters. For cluster one, the top occurrences are academic misconduct, plagiarism, cheating, ethics, integrity, academic integrity, medical students, university, artifi-

Documents by year

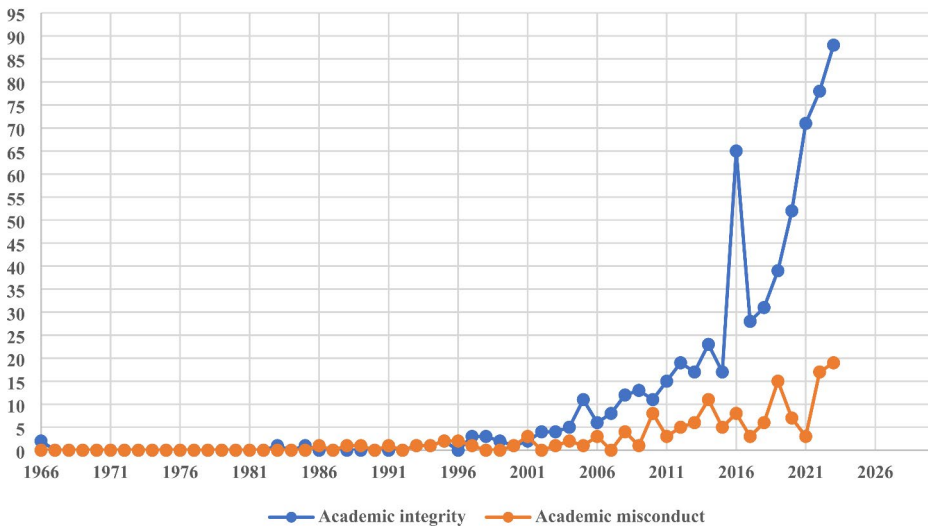


Fig. 2 The number of documents by year

cial intelligence, dark triad, *iThenticate*, Machiavellianism, online learning, perceptions, and prevention; for the second cluster include academic integrity, academic dishonesty, higher education, detection, entitlement.

Furthermore, Fig. 4 provides a detailed depiction of the thematic map's four quadrants, offering insights into the intricate relationships between various aspects of academic integrity and misconduct. Within academic integrity, the basic themes encompass the overarching concept and delve into specific manifestations such as plagiarism and academic misconduct. These themes are clustered in the first quadrant, highlighting their close association and shared implications for maintaining scholarly standards. Conversely, the second cluster within this theme explores related topics such as cheating, academic dishonesty, and the impact of the Covid-19 pandemic on academic practices, underscoring the evolving nature of ethical challenges in academia (Garcia, 2023; McCabe et al., 2006; Zachek, 2020). Online testing during the wake of COVID-19 also disturbs academic integrity (Janke et al., 2021; Klijn et al., 2022; Vellanki et al., 2023).

Similarly, the basic themes for academic misconduct reveal a complex web of interconnected issues spanning multiple clusters. In the first cluster, academic misconduct is closely linked with plagiarism, cheating, essay mills, and software like *iThenticate*, reflecting how scholarly misconduct can manifest (Lee, 2022). Meanwhile, the second cluster explores the intersections between academic integrity, academic dishonesty, contract cheating, the dark triad personality traits, and entitlement, shedding light on the psychological and social factors contributing to unethical behavior in academic settings (Garcia, 2023).

Of particular significance is the observation within the niche themes that both quadrants explicitly acknowledge the influence of artificial intelligence (AI) on academic misconduct, particularly at the level of higher education institutions and universities. The rapid development of AI in recent years has created new challenges for researchers to use the technologies without violating ethical guidelines in their studies. This recognition underscores the need

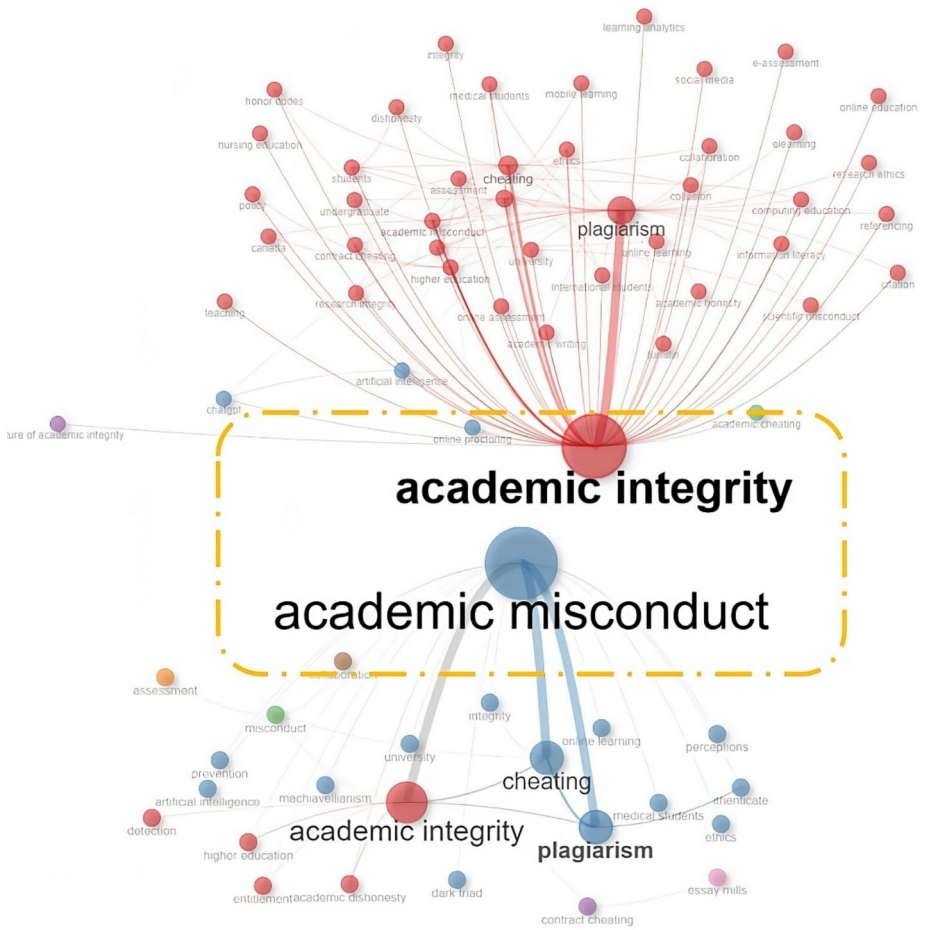


Fig. 3 Co-occurrence network

for proactive measures to address the ethical implications of AI technologies in academic research and assessment processes (Perkins & Roe, 2023). By delineating these thematic patterns and relationships, Fig. 4 provides a comprehensive framework for understanding and addressing the multifaceted challenges of academic integrity and misconduct in contemporary academia.

Figure 5a and b show interconnected research highlighting the close link between academic integrity and misconduct. These networks represent the intricate web of scholarly inquiry surrounding these themes, revealing how studies in one area often inform and intersect with investigations in the other (Otto & Cortina-Pérez, 2022). The dominance of research focusing on cheating, plagiarism, dishonesty, and ethical considerations reflects the enduring significance of these issues within the academic community (McCabe et al., 2006; Zachek, 2020). Moreover, the networks highlight the multidimensional nature of these phenomena, showcasing the diverse perspectives and methodologies researchers employ to explore and address challenges to academic integrity. By elucidating the interconnectedness

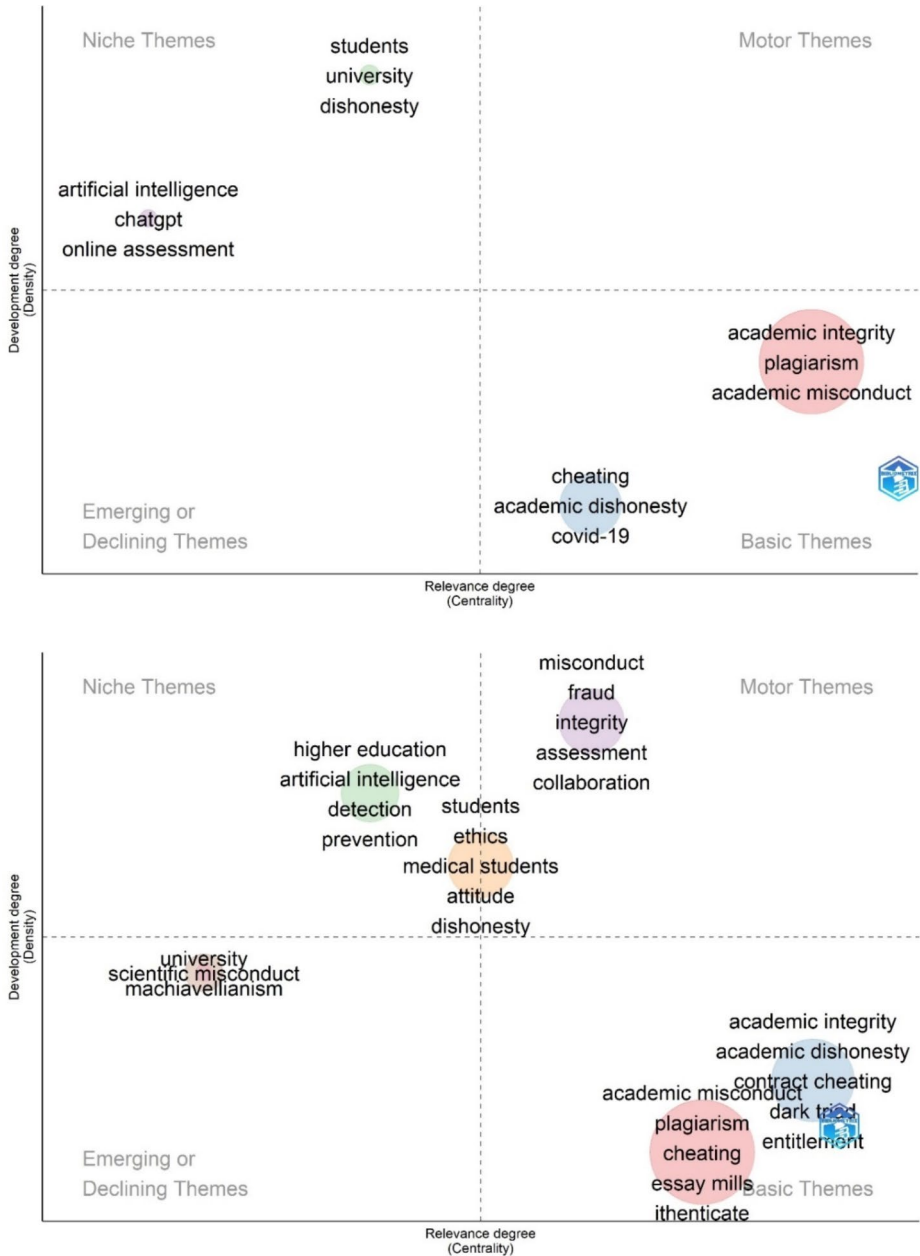


Fig. 4 Thematic map of academic integrity and academic misconduct



of various research strands, Fig. 5a and b provide valuable insights into the complex dynamics shaping scholarly discourse on integrity and academic misconduct.



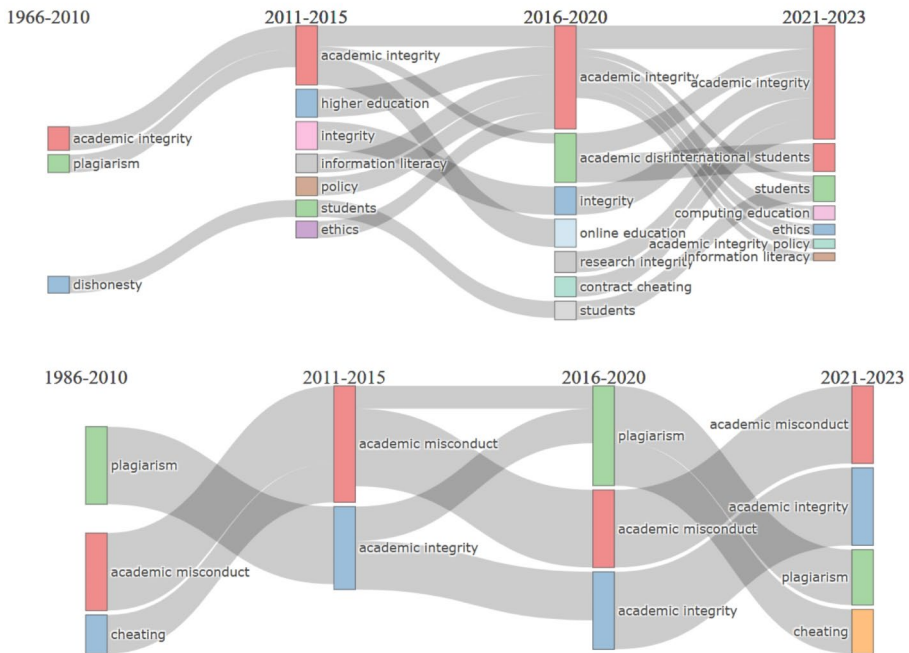


Fig. 6 Thematic evolution by Louvain

Both academic integrity and misconduct resulted in three clusters on the word map (Fig. 7). The first quadrant highlights discussions about academic integrity policy, assessment, collaboration, and collusion. In the central quadrant, the topic of academic and research integrity is juxtaposed with various forms of academic misconduct, such as academic dishonesty, cheating, plagiarism, ethics, and issues in online assessment (Klijn et al., 2022; Lee, 2022; McCabe et al., 2006; Morris, 2018; Zachek, 2020). The final cluster of the academic integrity map focuses on online proctoring and problems with artificial intelligence, including ChatGPT. Similarly, in the quadrants of the academic misconduct maps, instances of student fraud as academic misconduct and numerous cases of academic dishonesty among university students at higher education levels are emphasized (Bowers, 1966; Cotton et al., 2024; Garcia, 2023; Nikolic et al., 2023).

The manifestation of the word map can be seen in the topic dendrogram in Fig. 8, where each research topic will be detailed in terms of its position, hierarchy, and level (Havemann et al., 2012). This dendrogram visually represents the relationships between different topics, allowing for a comprehensive understanding of the overarching themes within academic integrity and misconduct. For instance, it elucidates how the advent of online learning has opened avenues for potential academic misconduct, as the shift to digital platforms presents new challenges in ensuring the integrity of assessments and collaborations (Klijn et al., 2022).

Furthermore, the emergence of artificial intelligence poses additional complexities, with concerns arising about its potential role in facilitating academic dishonesty through automated content generation and plagiarism detection evasion. Notably, the widespread adop-

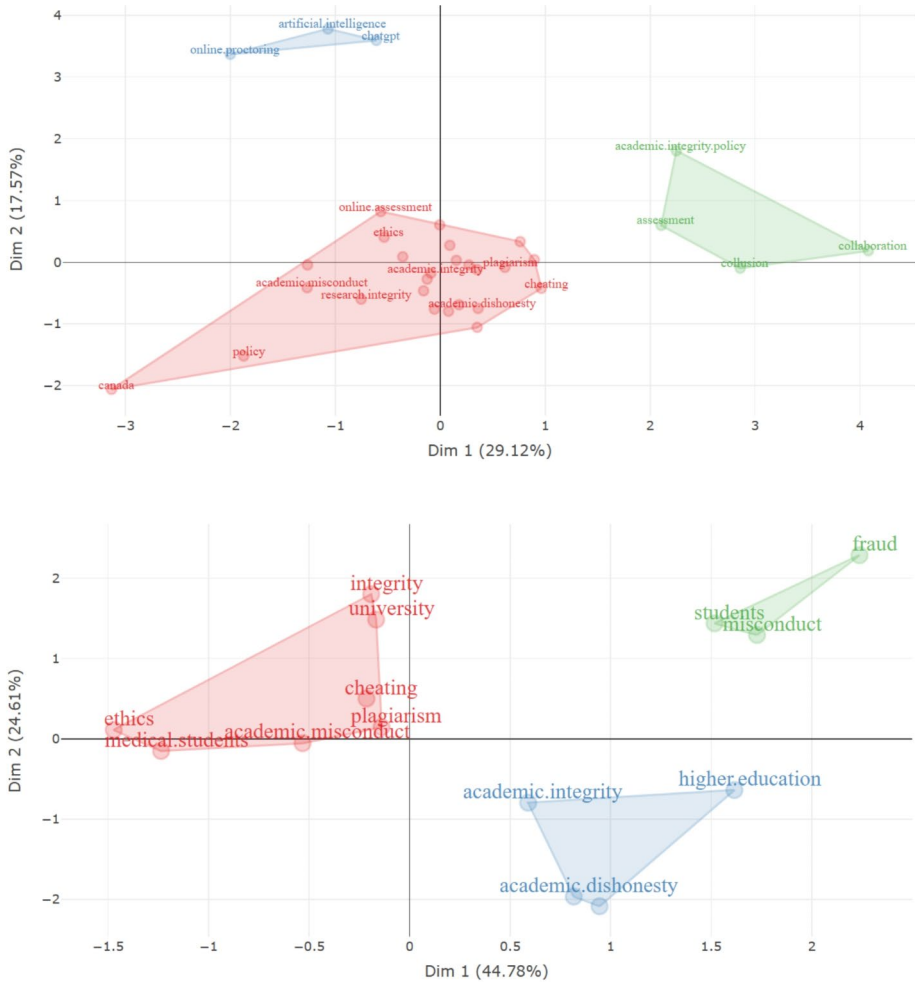


Fig. 7 Word map

tion of OpenAI technologies, such as ChatGPT, introduces novel dynamics to the academic landscape, with implications for both integrity preservation and vulnerability to exploitation (Hung & Chen, 2023; Jarrah et al., 2023; Perkins & Roe, 2023). Thus, the topic dendrogram serves as a valuable tool for researchers and policymakers alike, offering insights into the evolving nature of academic integrity and misconduct in an increasingly digitized world.

The Fields Contribute to the Discourse on Academic Integrity and Academic Misconduct, and the Key Interdisciplinary Intersections Identified

Regarding fields focusing on academic integrity, social sciences maintain the highest proportion, comprising 40.4% of the total studies. This dominance reflects the multifaceted nature of social sciences, which often intersect with issues related to ethics, norms, and

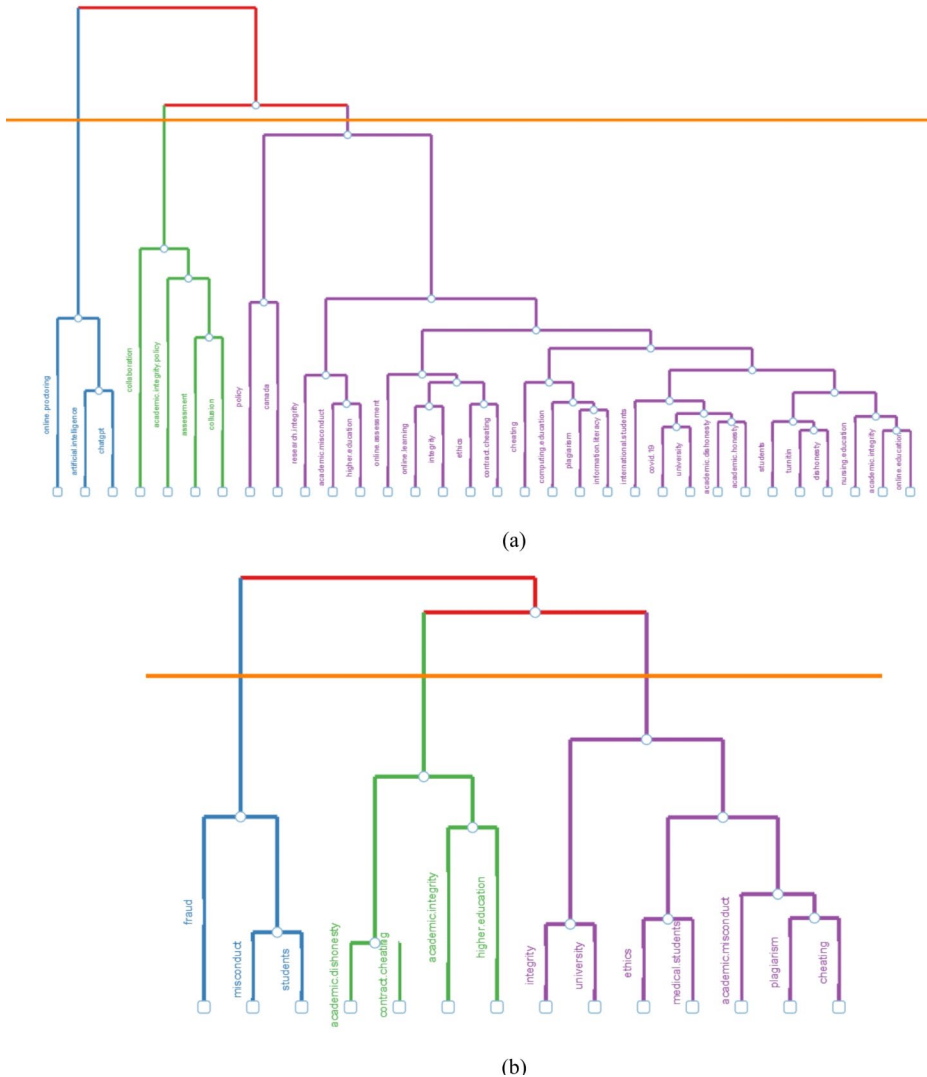


Fig. 8 Topic dendrogram (a) academic integrity; (b) academic misconduct

societal behaviours within academic settings (Benson et al., 2019; Stoesz et al., 2019). The significant presence of research in medicine (12.7%) underscores the importance of ethical standards and integrity in healthcare education and practice (Abbott & Nininger, 2020; Özcan et al., 2019). Similarly, the inclusion of arts and humanities and nursing highlights the diverse perspectives and approaches taken toward understanding and addressing academic integrity issues across different disciplines. The substantial representation of business, management, and accounting studies (7%) suggests a growing recognition of the importance of integrity in professional fields where ethical conduct is paramount. Psychology's contribution (6.1%) underscores its role in examining individual behaviours and motivations related to academic honesty and misconduct.

Social sciences maintain their prominent position on academic misconduct, indicating the continued interest and emphasis on understanding the underlying factors contributing to unethical behaviour within academic contexts. The significant presence of arts and humanities research in academic misconduct highlights the importance of cultural and contextual factors in shaping attitudes and behaviours toward integrity and misconduct. Similarly, the notable involvement of computer sciences reflects the increasing concern over issues such as plagiarism, data fabrication, and cyber cheating in the digital age (Morris, 2018). In medicine, while the percentage of studies on academic misconduct is relatively lower at 5.7%, it remains a critical area of focus given the implications for patient care, research integrity, and public trust in healthcare institutions (see Letchuman et al., 2021). The comparable representation of engineering at 5.4% underscores the universality of integrity challenges across diverse academic disciplines, necessitating interdisciplinary collaboration and concerted efforts to promote ethical conduct and uphold academic standards (Fig. 9).

Furthermore, the International Journal for Educational Integrity (IJEI) and Journal of Academic Ethics (JAE) are the top sources in academic integrity and misconduct research. Both of them in the top ranks with 36 and 35 articles for academic integrity research and 9 and 8 for academic misconduct research. If we visit the journal dashboards, we can see that IJEI “provides a platform for educators across all sectors to research issues in the multi-disciplinary field of educational integrity” (IJEI, 2024). Meanwhile, JAE “discusses a range of ethical issues related to research, teaching, administration, and governance at post-secondary level” (JAE, 2024) (Table 1).

The Methodological Trends Characterize Research on Academic Integrity and Academic Misconduct, and the Influence of the Understanding and Prevention of Unethical Behaviors in Academia

Over four decades, the landscape of academic integrity and misconduct has been extensively scrutinized through various methodological lenses, reflecting evolving research trends. These methodological trends shed light on the intricacies of unethical behaviors within academia and play a crucial role in shaping our understanding of these phenomena and devising effective prevention strategies (Table 2).

In academic integrity research, different methods help scholars uncover new knowledge. Systematic Literature Review (SLR) is like a treasure hunt through existing research. It carefully examines what has been studied, ensuring everything necessary is noticed. About 23.13% of research uses this method, such as Abbott and Nininger (2020) and Stoesz et al. (2019). Researchers use survey design to collect information from many people. It is like taking a significant snapshot of what people think. This method makes up 19.14% of academic research, such as Amigud and Pell (2021) and Özcan et al. (2019). Content and thematic analysis help researchers find patterns in what people say or show. It is about 16.91% of research. Research by Perkins and Roe (2023) and Yu and Li (2022) utilized this method.

Meanwhile, a case study is like zooming in on one specific example and studying it closely. It is excellent for understanding real-life situations in detail. About 14.51% of research uses this method (see Benson et al., 2019; Peytcheva-Forsyth et al., 2019; Yu & Li, 2022). Moreover, qualitative studies focus on people’s experiences and feelings. Researchers might interview people or observe them in their natural environments. It is a way to understand the human side of things. About 12.28% of research is qualitative. One of them

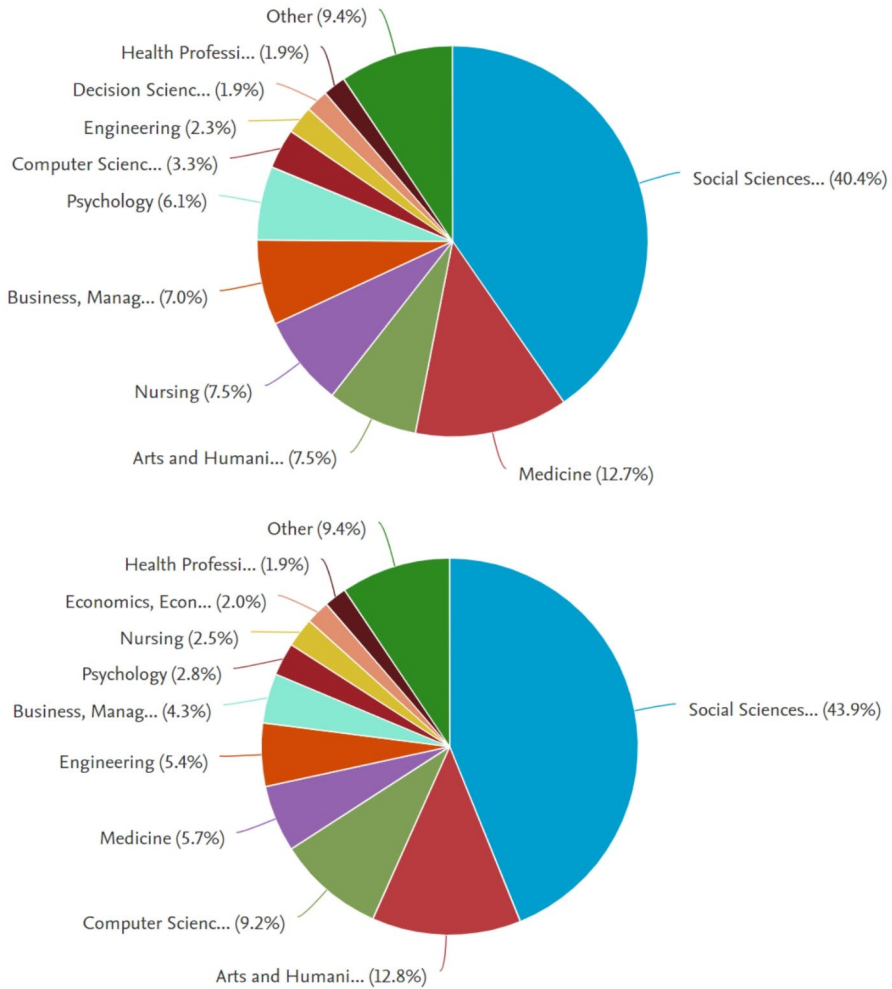


Fig. 9 Field sources (top: academic integrity; bottom: academic misconduct)

was a study by Drisko (1997). Then, experimental design (8.77%) has also become a choice among researchers such as Amigud et al. (2017) and Klijn et al. (2022). Researchers create controlled situations to test their ideas and determine their correctness.

Mixed-methods studies, a combination of various approaches, are a significant tool in research, accounting for about 4.78% of studies and steadily gaining popularity (see Summers et al., 2021; Young et al., 2018). Similarly, bibliometric studies, which delve into the publication and sharing of research, are a crucial aspect, representing about 0.48% of research (such as Maral, 2024; Patra & Das, 2019; Rodrigues et al., 2024). Through their analysis of citations and publication patterns, these studies provide valuable insights into the academic world.

Similarly, some methods are more common than others regarding academic misconduct. About 28.87% of research on academic misconduct used systematic literature review.

Table 1 Top sources

Top Sources for academic integrity	Articles	Top Sources for academic misconduct	Articles
Int. J. for Educ. Integrity	36	J. of Acad. Ethics	9
J. of Acad. Ethics	35	Int. J. for Educ. Integrity	8
Handbook of Academic Integrity	31	Personality and Individual Diff.	3
ASEE An. Conf. Exposition Conf. Proc.	22	Handbook Res. Acad. Misconduct in High. Educ.	3
A Res. Agenda for Acad. Integrity	8	Ethics and Behavior	3
J. of Dental Educ.	8	Science and Engineering Ethics	2
ACM Int. Conf. Proc. Series	7	Res. Policy	2
Assess. And Eval. In Higher Educ.	7	Res. Higher Educ.	2
Proc. – Front. Educ. Conf, FIE	7	Radiologic Technology	2
Ethics and Behavior	6	Pakistan Armed Forces Med. J., J. Prof. Nursing, J. Nursing Educ., J. Appl. Res. Higher Educ., Inform. Wissenschaft Und Praxis, Front. in Psychol., Account. in Res., ASEE An. Conf. Exposition Conf. Proc.	2

Note:**Bold** indicates the intersection sources between two themes

Table 2 Methodological trends

Type of research methods	Number of articles (percentage)	
	Academic integrity	Academic misconduct
Systematic Literature Review (SLR)	145 (23.13%)	41 (28.87%)
Survey design	120 (19.14%)	46 (32.39%)
Content analysis; thematic analysis	106 (16.91%)	18 (12.68%)
Case study	91 (14.51%)	20 (14.08%)
Qualitative study	77 (12.28%)	6 (4.23%)
Experimental design	55 (8.77%)	8 (5.63%)
Mixed-method	30 (4.78%)	2 (1.41%)
Bibliometric study	3 (0.48%)	1 (0.70%)
Total	627 (100%)	142 (100%)

Meanwhile, 32.39% of researchers utilized survey design (see Pupovac et al., 2019; Teixeira & de Fátima Oliveira Rocha, 2010). Content and thematic analysis also ranked third, comprising 12.68% of research. Furthermore, studying specific cases through case studies of academic misconduct made up 14.08% of research in this field (such as Han & Li, 2018).

Qualitative studies still contribute valuable insights, representing 4.23% of research (see Maley, 2020; Wortzman et al., 2023). Experimental design is not much different, accounting for 5.63% of research (such as Stephens & Bertram Gallant, 2023). A smaller portion are mixed-methods and bibliometric studies (Ali et al., 2021), which account for 1.41% and 0.70%, respectively.

To prevent unethical behaviors in academia, we provide some insights into academic integrity and misconduct. Academic integrity refers to the ethical principles and values that govern honest and responsible academic behavior. In contrast, academic misconduct encompasses a range of behaviors that violate the principles of academic integrity and ethical scholarship (Tauginienė et al., 2019). Some typical categories are summarized in Table 3.

Limitation and Future Direction

While bibliometric analysis provides valuable insights into the thematic evolution of academic integrity and misconduct research, it is not without its limitations. Firstly, bibliometric data may be subject to biases inherent in the publication and citation practices within academic disciplines, potentially skewing the representation of certain themes or fields. Moreover, bibliometric analysis relies solely on published literature, overlooking unpublished research and grey literature that may offer alternative perspectives or insights. Additionally, the choice of keywords and search criteria in bibliometric analysis may influence the identification and classification of themes, potentially overlooking emerging topics or interdisciplinary intersections that are not captured by predefined terms. Furthermore, bibliometric analysis may not capture the contextual nuances or qualitative aspects of academic integrity and misconduct, limiting its ability to provide a holistic understanding of these phenomena.

Moving forward, future research on academic integrity and misconduct can address these limitations and explore new avenues for inquiry. Firstly, there is a need for longitudinal studies that track the evolution of themes and trends in academic integrity and misconduct research over extended periods, allowing for a more comprehensive understanding of how these phenomena unfold over time. Additionally, interdisciplinary collaborations can enrich the discourse on academic integrity and misconduct by integrating insights from diverse fields such as psychology, sociology, education, and computer science. Leveraging advanced computational techniques, such as machine learning and network analysis, can enhance the depth and breadth of bibliometric analysis, enabling researchers to uncover hidden patterns, identify emerging topics, and map the complex interactions within the scholarly landscape. Furthermore, future research can adopt mixed-methods approaches that combine quantitative bibliometric analysis with qualitative inquiries, bridging the gap between macro-level trends and micro-level insights into the motivations, behaviors, and experiences of individuals involved in academic dishonesty. By addressing these challenges and embracing innovative approaches, future research can contribute to a more nuanced understanding of academic integrity and misconduct and inform evidence-based strategies for promoting ethical behavior in academia.

Table 3 Criteria of academic integrity and misconduct

Criteria of academic integrity	Criteria of academic misconduct
Honesty (Carr, 2014; Fishman, 1999; ICAI, 2018; Um, 2023)	Being truthful in all academic endeavors, including representing one's own work accurately and acknowledging the contributions of others through proper citation.
Originality (Stone, 2003)	Producing work that is original and authentic, avoiding plagiarism by properly citing sources and attributing ideas to their originators.
Fairness (Fishman, 1999; ICAI, 2018)	Treating all individuals fairly and equitably, respecting the rights and contributions of others, and avoiding actions that give one student an unfair advantage over others.
Respect (Fishman, 1999; ICAI, 2018)	Respecting the intellectual property of others, including authors, researchers, and fellow students, by properly attributing their work and ideas.
Responsibility (Fishman, 1999; ICAI, 2018; Macdonald & Carroll, 2006)	Taking responsibility for one's own academic work and actions, including meeting deadlines, following instructions, and seeking assistance when needed.
Accountability (ICAI, 2018)	Being accountable for one's academic conduct and upholding the standards of academic integrity set forth by institutions, instructors, and academic communities.
	Plagiarism (Guba & Tsivinskaya, 2024; Lee, 2022; Macdonald & Carroll, 2006; Stone, 2003)
	Presenting someone else's work, ideas, or words as your own without proper attribution.
	Cheating (Lee, 2022; Morris, 2018)
	Using unauthorized materials, assistance, or methods to gain an unfair advantage in exams, assignments, or other academic activities.
	Fabrication or falsification (Armond et al., 2021; Lee, 2022)
	Inventing or falsifying data, citations, or other information presented in academic work.
	Collusion (Sutton & Taylor, 2011)
	Unauthorized collaboration with others in completing assignments or exams when individual work is required.
	Misrepresentation (Letchuman et al., 2021)
	Providing false information or documentation to gain academic benefits, such as falsifying credentials or medical excuses.
	Ghostwriting (Yadav & Rawal, 2018)
	Hiring someone else to complete academic work on one's behalf without proper acknowledgment.

Table 3 (continued)

Criteria of academic integrity		Criteria of academic misconduct	
Transparency (ICAI, 2018)	Being transparent about one's sources, methods, and processes in academic work, including clearly documenting research methodologies and disclosing any conflicts of interest.	Duplicate Submission (Stone, 2003)	Submitting the same work for credit in multiple courses without permission.
Trustworthiness (Ahmed, 2024; Fishman, 1999; ICAI, 2018)	Building trust within the academic community by demonstrating integrity in all academic activities and interactions.	Unauthorized Access (Yakimischak, 2003)	Obtaining or using academic materials, exams, or information without proper authorization.
Civic Engagement (Yakimischak, 2003)	Engaging in academic activities with a sense of civic responsibility, including contributing positively to the academic community and upholding ethical standards in research and scholarship.	Sabotage (Basso, 1997; Lee, 2022)	Deliberately interfering with the academic work of others, such as stealing or destroying materials.
Interdisciplinary Collaboration (Specht & Crowston, 2022).	Engaging in interdisciplinary collaboration with integrity, including respecting the methodologies, perspectives, and contributions of colleagues from different disciplines.	Bribery (De Waele et al., 2021)	Offering or accepting goods, services, or favors in exchange for academic advantage.
Confidentiality (ICAI, 2018)	Respecting the privacy and confidentiality of academic information, including research data, student records, and confidential communications.	Impersonation (Goel, 2021)	Having someone else take an exam or complete an assignment under one's identity.

Table 3 (continued)

Criteria of academic integrity		Criteria of academic misconduct	
Adherence to Academic Policies (Bilang et al., 2021)	Following institutional policies, procedures, and regulations related to academic conduct, including those regarding plagiarism, cheating, and other forms of misconduct.	Unauthorized Collaboration (Chen et al., 2023)	Collaborating with others in a manner that exceeds the permissible level of collaboration allowed by the instructor or institution.
Professionalism (Feeney, 2012)	Demonstrating professionalism in academic interactions, including respectful communication with peers, instructors, and staff, as well as maintaining a positive attitude towards learning and collaboration.	Contract Cheating (Bretag et al. 2018; Morris, 2016; Rogerson, 2017; Walker & Townley, 2012)	Paying someone else to complete academic work or purchasing pre-written essays or assignments.
Intellectual Freedom (Macdonald, 2023)	Respecting the rights of individuals to express diverse perspectives and ideas, while also engaging in constructive dialogue and debate within the academic community.	Selective Citation (Duyx et al. 2019; Urlings et al., 2019)	Deliberately omitting relevant sources or citations that contradict one's argument or support.
Cultural Sensitivity (Gradellini et al., 2021)	Recognizing and respecting cultural differences and perspectives in academic work, including acknowledging diverse sources of knowledge and understanding.	Data Manipulation (Tang et al. 2023)	Altering or selectively presenting research data to fit desired outcomes or conclusions.
Data Management and Security (Tang et al. 2023)	Safeguarding research data and intellectual property, including proper storage, handling, and dissemination of data, as well as adherence to ethical guidelines for data collection and analysis.	Self-Plagiarism (Burdine et al. 2018; Supak-Smocić & Bilić-Zulle, 2013)	Submitting work that has been previously submitted for academic credit without proper citation or acknowledgment.

Table 3 (continued)

Criteria of academic integrity		Criteria of academic misconduct	
Environmental Responsibility (ICAI, 2018) (Tang et al., 2023)	Considering the environmental impact of academic activities, including reducing waste, conserving resources, and promoting sustainable practices in research and education.	Misconduct in Research (Armond et al. 2021; Mousavi & Abdollahi, 2020)	Violations of ethical standards in conducting research, including failure to obtain proper consent, fabrication or falsification of data, or failure to disclose conflicts of interest.
Community Engagement (Yakimischak, 2003)	Engaging with the broader community in ethical and responsible ways, including participating in service-learning activities, community-based research, and outreach initiatives.	Impeding Investigation (Bray et al., 2011)	Intentionally obstructing or interfering with investigations into allegations of academic misconduct.
Peer Review Integrity (Armond et al. 2021)	Upholding the integrity of the peer review process in academic publishing, including providing honest and constructive feedback, disclosing conflicts of interest, and maintaining confidentiality.	Unauthorized Use of Technology (Seligman & Smith, 2004)	Using technology to gain an unfair advantage, such as hacking into systems to access exam answers or using unauthorized software during exams.
Ethical Leadership (Zheng et al. 2022)	Demonstrating ethical leadership in academic roles, including mentoring and guiding others in upholding the principles of academic integrity and ethical conduct.	Publication Misconduct (Armond et al. 2021; Lee, 2022)	Violations of ethical standards in publishing research, such as duplicate publication, plagiarism, or failure to disclose conflicts of interest to journals.
Social Responsibility (ICAI, 2018; (Macdonald, 2023)	Recognizing the social impact of academic work and research, and conducting research in ways that promote social justice, equity, and the public good.	Misrepresentation of Credentials (Parrish et al. 1996)	Falsifying academic credentials, such as transcripts, diplomas, or certifications, in order to gain admission to an academic program or to obtain employment or academic opportunities.

Conclusion

This study presents a novel bibliometric analysis, offering unique insights into the prevailing themes and interdisciplinary intersections within the discourse on academic integrity and academic misconduct. The findings provide comprehensive visualizations of the thematic networks, revealing the intricate relationships between various aspects of these foundational concepts within academia.

The intrinsic relationship between academic integrity and misconduct reveals critical criteria associated with academic misconduct, such as plagiarism, cheating, and dishonesty. The inclusion of terms like 'dark triad' and the misuse of artificial intelligence tools underscores the evolving nature of ethical challenges researchers and educators face, making our community aware and prepared for these emerging issues.

The detailed thematic maps encompassing academic integrity and misconduct. Within each quadrant, distinct clusters of themes emerge, reflecting the diverse dimensions of these complex issues. Notably, the influence of artificial intelligence on academic misconduct is acknowledged, underscoring the need for ethical reflection and proactive measures in this rapidly evolving landscape.

The interconnected nature of research endeavors surrounding academic integrity and misconduct. The dominance of themes such as cheating, plagiarism, and ethical considerations underscores the enduring significance of these issues within academia. Moreover, the multidimensional nature of these phenomena is evident, with diverse perspectives and methodologies contributing to the scholarly discourse.

Over time, the thematic evolution of the academic integrity and misconduct literature has revealed shifts in focus and emphasis. From initial discussions on the dichotomy between integrity and misconduct to recent explorations of emerging issues such as fraud in online learning and contract cheating, the thematic landscape has expanded to encompass various topics and concerns. These findings have practical implications for educators, researchers, and scholars, informing them of the evolving academic ethical challenges.

Furthermore, the analysis of disciplinary contributions underscores the interdisciplinary nature of the discourse, showcasing the breadth and depth of research in this field. While social sciences continue to play a prominent role in addressing academic integrity and misconduct, contributions from medicine, arts and humanities, business, management, accounting, psychology, and computer sciences highlight the varied perspectives different fields bring, enriching our understanding of these complex issues.

The landscape of academic integrity research is diverse, with various methods offering unique avenues for inquiry and understanding. This study, for instance, leveraged the meticulous scrutiny of existing literature in systematic literature reviews and the nuanced exploration of human experiences in qualitative studies. Each method brings its strengths, and as the field continues to evolve, embracing a combination of these methods may offer the most comprehensive insights into the complex dynamics of academic integrity and misconduct, fostering a deeper understanding and more effective strategies for upholding scholarly standards.

Funding This research was supported by Universitas Negeri Surabaya through the Policy Research Scheme.

Data Availability N/A.

Declarations

Ethical Approval The authors declare that this is an original work that has not been previously published. It is not being considered for publication elsewhere at this time. The manuscript accurately represents the authors' research and analysis, and co-authors and co-researchers are properly credited. The findings are well-placed within the existing body of knowledge. All sources used are appropriately acknowledged and cited. Each author contributed significantly to the development of the manuscript and accepts full responsibility for its content.

Statement Regarding Research Involving Human Participants and/or Animals N/A.

Consent to Participate N/A.

Informed Consent N/A.

Competing Interests The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

References

- Abbott, M. R. B., & Nininger, J. (2020). Academic integrity in nursing education: Policy review. *Journal of Professional Nursing*, 37(2), 268–271. <https://doi.org/10.1016/j.profnurs.2020.12.006>
- Ahmed, S. K. (2024). The pillars of trustworthiness in qualitative research. *Journal of Medicine Surgery and Public Health*, 2, 100051. <https://doi.org/10.1016/j.glmedi.2024.100051>
- Ali, I., Sultan, P., & Aboelmaged, M. (2021). A bibliometric analysis of academic misconduct research in higher education: Current status and future research opportunities. *Accountability in Research*, 28(6), 372–393. <https://doi.org/10.1080/08989621.2020.1836620>
- Amigud, A., & Pell, D. J. (2021). When academic integrity rules should not apply: A survey of academic staff. *Assessment & Evaluation in Higher Education*, 46(6), 928–942. <https://doi.org/10.1080/02602938.2020.1826900>
- Amigud, A., Arnedo-Moreno, J., Daradoumis, T., & Guerrero-Roldan, A. E. (2017). Using learning analytics for preserving academic integrity. *The International Review of Research in Open and Distributed Learning*, 18(5). <https://doi.org/10.19173/irrodl.v18i5.3103>
- Aria, M., & Cuccurullo, C. (2017). Bibliometrix: An R-tool for comprehensive science mapping analysis. *Journal of Informetrics*, 11(4), 959–975. <https://doi.org/10.1016/j.joi.2017.08.007>
- Armond, A. C. V., Gordijn, B., Lewis, J., Hosseini, M., Bodnár, J. K., Holm, S., & Kakuk, P. (2021). A scoping review of the literature featuring research ethics and research integrity cases. *BMC Medical Ethics*, 22(50). <https://doi.org/10.1186/s12910-021-00620-8>
- Basso, J. (1997). How public relations professionals are managing the potential for sabotage, rumors, and misinformation disseminated via the internet by computer hackers. *IEEE Transactions on Professional Communication*, 40(1), 28–33. <https://doi.org/10.1109/47.557516>
- Benson, L., Rodier, K., Enström, R., & Bocatto, E. (2019). Developing a university-wide academic integrity E-learning tutorial: A Canadian case. *International Journal of Education Integrity*, 15(5). <https://doi.org/10.1007/s40979-019-0045-1>
- Bilang, H. A., Cai, E. C., Calapine, A. G. D., Durano, A. N. A., Gamban, K. T., Oroceo, S. Y. S., & Villasoto, H. L. E. (2021). *Understanding the lack of adherence to practices of academic integrity of Far Eastern University students in online education: A Phenomenological Study*. Thesis for Bachelor of Science in Psychology, Department of Psychology, Far Eastern University.
- Bowers, W. J. (1966). *Student dishonesty and its control in college*. Bureau of Applied Social Research, Columbia University.
- Bray, J., Johns, N., & Kilburn, D. (2011). An exploratory study into the factors impeding ethical consumption. *Journal of Business Ethics*, 98, 597–608. <https://doi.org/10.1007/s10551-010-0640-9>
- Bretag, T., Harper, R., Burton, M., Ellis, C., Newton, P., Rozenberg, P., Saddiqui, S., & van Haeringen, K. (2018). Contract cheating: A survey of Australian university students. *Studies in Higher Education*, 44(11), 1837–1856. <https://doi.org/10.1080/03075079.2018.1462788>

- Burdine, L. K., de Castro Maymone, M. B., & Vashi, N. A. (2018). Text recycling: Self-plagiarism in scientific writing. *International Journal of Women's Dermatology*, 5(2), 134–136. <https://doi.org/10.1016/j.ijwd.2018.10.002>
- Callaway, E. (2016). Publisher pulls 58 articles by Iranian scientists over authorship manipulation. *Nature*. <https://doi.org/10.1038/nature.2016.20916>
- Carr, D. (2014). The human and educational significance of honesty as an epistemic and moral virtue. *Educational Theory*, 64(1), 1–14. <https://doi.org/10.1111/edth.12047>
- Chen, H. C., Brown, K., Hernandez, Y. M., Martin, L. E., Witkop, C. T., Aintablian, A., Prince, A., Artino, A. R., Kind, T., & Maggio, L. A. (2023). Faculty and student perceptions of unauthorized collaborations in the preclinical curriculum: Student or system failure? *Academic Medicine*, 98(11S), S42–S49. <https://doi.org/10.1097/ACM.0000000000005356>
- Cotton, D. R., Cotton, P. A., & Shipway, J. R. (2024). Chatting and cheating: Ensuring academic integrity in the era of ChatGPT. *Innovations in Education and Teaching International*, 61(2), 228–239. <https://doi.org/10.1080/14703297.2023.2190148>
- Cutri, J., Freya, A., Karlina, Y., Patel, S. V., Moharami, M., Zeng, S., & Pretorius, L. (2021). Academic integrity at doctoral level: The influence of the imposter phenomenon and cultural differences on academic writing. *International Journal for Educational Integrity*, 17(1), 8. <https://doi.org/10.1007/s40979-021-00074-w>
- De Waele, L., Weißmüller, K. S., & van Witteloostuijn, A. (2021). Bribery and the role of public service motivation and social value orientation: A multi-site experimental study in Belgium, Germany and the Netherlands. *Frontiers in Psychology*, 12. <https://www.frontiersin.org/journals/psychology/articles/https://doi.org/10.3389/fpsyg.2021.655964>
- Deda, Y. N., Disnawati, H., Ekawati, R., & Suprpto, N. (2024). Research trend on dyscalculia by bibliometric analysis during 2017–2022. *International Journal of Evaluation and Research in Education*, 13(1), 69–79. <https://doi.org/10.11591/ijere.v13i1.25992>
- Drisko, J. W. (1997). Strengthening qualitative studies and reports: Standards to promote academic integrity. *Journal of Social Work Education*, 33(1), 185–197. <https://doi.org/10.1080/10437797.1997.10778862>
- Duyx, B., Urlings, M. J. E., & Swaen, G. M. H. (2019). Selective citation in the literature on the hygiene hypothesis: A citation analysis on the association between infections and rhinitis. *British Medical Journal Open*, 9, e026518. <https://doi.org/10.1136/bmjopen-2018-026518>
- Bouter, L. M., & Zeegers, M. P. (2019). 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>
- Feeney, S. (2012). *Professionalism in early childhood education: Doing our best for young children*. Pearson Education, Inc.
- Fishman, T. (1999). *The fundamental values of academic integrity*. International Center for Academic Integrity, The Office of College Relations at Oakton Community College, Des Plaines, Illinois. Retrieved from https://www.chapman.edu/academics/academic-integrity/_files/the-fundamental-values-of-academic-integrity.pdf
- Garcia, L. A. (2023). *Examining the increasing prevalence of academic dishonesty: An investigation of students' perceptions of academic integrity in higher education*. Theses and Dissertations. 1463. <https://scholarworks.utrgv.edu/etd/1463>
- Goel, R. K. (2021). Masquerading the government: Drivers of government impersonation fraud. *Public Finance Review*, 49(4), 548–572. <https://doi.org/10.1177/10911421211029305>
- Gradellini, C., Gómez-Cantarino, S., Dominguez-Isabel, P., Molina-Gallego, B., Mecugni, D., & Ugarte-Gurrutxaga, M. I. (2021). cultural competence and cultural sensitivity education in university nursing courses: A scoping review. *Frontiers in Psychology*, 12, 682920. <https://doi.org/10.3389/fpsyg.2021.682920>
- Guba, K. S., & Tsivinskaya, A. O. (2024). Ambiguity in ethical standards: Global versus local science in explaining academic plagiarism. *Science Engineering Ethics*, 30(4). <https://doi.org/10.1007/s11948-024-00464-6>
- Han, J., & Li, Z. (2018). How metrics-based academic evaluation could systematically induce academic misconduct: A case study. *East Asian Science Technology and Society: An International Journal*, 12(2), 165–179. <https://doi.org/10.1215/18752160-4275144>
- Havemann, F., Gläser, J., Heinz, M., & Struck, A. (2012). Identifying overlapping and hierarchical thematic structures in networks of scholarly papers: A comparison of three approaches. *Plos One*, 7(3), e33255. <https://doi.org/10.1371/journal.pone.0033255>
- Hidaayatullaah, H. N., & Suprpto, N. (2022). Global trend of megathrust research in the last ten years. *Science of Tsunami Hazards*, 41(4), 336–351.
- Hung, J., & Chen, J. (2023). The benefits, risks and regulation of using ChatGPT in Chinese academia: A content analysis. *Social Sciences*, 12(7), 380. <https://doi.org/10.3390/socsci12070380>

- Huybers, T., Greene, B., & Rohr, D. H. (2020). Academic research integrity: Exploring researchers' perceptions of responsibilities and enablers. *Accountability in Research*, 27(3), 146–177. <https://doi.org/10.1080/08989621.2020.1732824>
- ICAI (2018). *The fundamental values of academic integrity* (3rd ed.). International Center for Academic Integrity. Retrieved from https://academicintegrity.org/images/pdfs/20019_ICAI-Fundamental-Values_R12.pdf
- IJEI (2024). *International Journal for Educational Integrity: Aims and scope*. Retrieved from <https://edintegriety.biomedcentral.com/submission-guidelines/aims-and-scope>
- JAE (2024). *Journal of Academic Ethics: Overview*. Retrieved from <https://link.springer.com/journal/10805>
- Janke, S., Rudert, S. C., Petersen, Ä., Fritz, T. M., & Daumiller, M. (2021). Cheating in the wake of COVID-19: How dangerous is ad-hoc online testing for academic integrity? *Computers & Education Open*, 2, 100055. <https://doi.org/10.1016/j.caeo.2021.100055>
- Jarrah, A. M., Wardat, Y., & Fidalgo, P. (2023). Using ChatGPT in academic writing is (not) a form of plagiarism: What does the literature say? *Online Journal of Communication and Media Technologies*, 13(4), e202346. <https://doi.org/10.30935/ojcm/13572>
- Kemdikbud (2024). *Anjungan integritas akademik Indonesia*. Retrieved from <https://anjani.kemdikbud.go.id/>
- Klijn, F., Alaoui, M. M., & Vorsatz, M. (2022). Academic integrity in on-line exams: Evidence from a randomized field experiment. *Journal of Economic Psychology*, 93, 102555. <https://doi.org/10.1016/j.joe.2022.102555>
- Lee, C. (2022). *What is academic misconduct? Cheating, plagiarizing, and other shortcut solutions*. Turnitin. Retrieved from: <https://www.turnitin.com/blog/what-is-academic-misconduct-cheating-plagiarizing-and-other-shortcut-solutions>
- Letchuman, V., Barrow, D. L., & Adamson, D. C. (2021). Trends in academic misrepresentation in neurological surgery residency applicants: A 2-year analysis. *World Neurosurgery*, 151, (e988–e994). <https://doi.org/10.1016/j.wneu.2021.05.021>
- Leydesdorff, L. (1987). Various methods for the mapping of science. *Scientometrics*, 11(5–6), 291–320. <https://doi.org/10.1007/BF02016871>
- Lupton, R. C., & Allwood, J. M. (2017). Hybrid Sankey diagrams: Visual analysis of multidimensional data for understanding resource use. *Resources Conservation and Recycling*, 124, 141–151. <https://doi.org/10.1016/j.resconrec.2017.05.002>
- Maani, J., & Rajkumar, A. D. (2023). Future research directions of mergers and acquisitions in the banking sector: A review based on bibliometric analysis. *Multidisciplinary Reviews*, 7(1), 2024015. <https://doi.org/10.31893/multirev.2024015>
- Macdonald, S. (2023). Intellectual freedom and social responsibility in library and information science: A reconciliation. *Journal of Librarianship and Information Science*, 0(0). <https://doi.org/10.1177/0961006231160795>
- Macdonald, R., & Carroll, J. (2006). Plagiarism—a complex issue requiring a holistic institutional approach. *Assessment & Evaluation in Higher Education*, 31(2), 233–245. <https://doi.org/10.1080/02602930500262536>
- Maley, B. (2020). A narrative inquiry of associate degree nursing students' stories about their experience of academic misconduct. *Teaching and Learning in Nursing*, 15(4), 205–209. <https://doi.org/10.1016/j.teln.2020.04.004>
- Maral, M. (2024). A bibliometric analysis on academic integrity. *Journal of Academic Ethics*. <https://doi.org/10.1007/s10805-024-09519-6>
- McCabe, D. L., & Trevino, L. K. (1993). Academic dishonesty: Honor codes and other contextual influences. *The Journal of Higher Education*, 64(5), 522–538. <https://doi.org/10.2307/2959991>
- McCabe, D. L., Butterfield, K. D., & Treviño, L. K. (2006). Academic dishonesty in graduate business programs: Prevalence, causes, and proposed action. *Academy of Management Learning & Education*, 5(3), 294–305. <https://doi.org/10.5465/AMLE.2006.22697018>
- Md Radzi, E., Abd Aziz, F. S., & Abdullah, K. H. (2024). The interrelation between happiness and workplace safety: A bibliometric review. *Multidisciplinary Reviews*, 7(7), 2024145. <https://doi.org/10.31893/multirev.2024145>
- Mohan, M. G., & Murugan, M. (2023). Bibliometric analysis and research directions concerning visualization of workplace spirituality. *Multidisciplinary Reviews*, 7(3), 2024050. <https://doi.org/10.31893/multirev.2024050>
- Morris, E. J. (2016). Academic integrity: A teaching and learning approach. In T. Bretag (Ed.), *Handbook of academic integrity* (pp. 1037–1053). Singapore: Springer.
- Morris, E. J. (2018). Academic integrity matters: Five considerations for addressing contract cheating. *International Journal of Educational Integrity*, 14, 15. <https://doi.org/10.1007/s40979-018-0038-5>

- Mousavi, T., & Abdollahi, M. (2020). A review of the current concerns about misconduct in medical sciences publications and the consequences. *Daru*, 28(1), 359–369. <https://doi.org/10.1007/s40199-020-00332-1>
- Nikolic, S., Daniel, S., Haque, R., Belkina, M., Hassan, G. M., Grundy, S., & Sandison, C. (2023). ChatGPT versus engineering education assessment: A multidisciplinary and multi-institutional benchmarking and analysis of this generative artificial intelligence tool to investigate assessment integrity. *European Journal of Engineering Education*, 48(4), 559–614. <https://doi.org/10.1080/03043797.2023.2213169>
- Nisaa, K., Suprpto, N., Hidaayatullaah, H. N., & Mubarak, H. (2023). Trend and research of Lego and Minecraft as learning media to realize 4th SDGs. *E3S Web of Conferences*, 450, 01003. <https://doi.org/10.1051/e3sconf/202345001003>
- Otto, A., & Cortina-Pérez, B. (2023). *Handbook of CLIL in pre-primary education*. Cham, Switzerland: Springer.
- Özcan, M., Yeniçeri, N., & Çekiç, E. G. (2019). The impact of gender and academic achievement on the violation of academic integrity for medical faculty students, a descriptive cross-sectional survey study. *BMC Medical Education*, 19(427). <https://doi.org/10.1186/s12909-019-1865-7>
- Panigrahy, A., & Verma, A. (2024). 15 years of application of digital marketing and other technologies in tourism: A bibliometric analysis and systematic literature review. *Multidisciplinary Reviews*, 7(5), 2024101. <https://doi.org/10.31893/multirev.2024101>
- Parrish, D. M. (1996). Falsification of credentials in the research setting; scientific misconduct? *The Journal of Law Medicine & Ethics*, 24(3), 260–266. <https://doi.org/10.1111/j.1748-720X.1996.tb01861.x>
- Patra, S., & Das, A. (2019). Finding facets of academic integrity and plagiarism through the prism of a citation database. *DESIDOC Journal of Library & Information Technology*, 39(2), 60–66. <https://doi.org/10.14429/djlit.39.2.14163>
- Perkins, M., & Roe, J. (2023). Decoding academic integrity policies: A corpus linguistics investigation of AI and other technological threats. *Higher Education Policy*. <https://doi.org/10.1057/s41307-023-00323-2>
- Peytcheva-Forsyth, R., Mellar, H., & Aleksieva, L. (2019). Using a student authentication and authorship checking system as a catalyst for developing an academic integrity culture: A Bulgarian case study. *Journal of Academic Ethics*, 17, 245–269. <https://doi.org/10.1007/s10805-019-09332-6>
- Poff, D. C. (2023). Academic Ethics and Academic Integrity. In D. C. Poff, & A. C. Michalos (Eds.), *Encyclopedia of Business and Professional Ethics*. Springer. https://doi.org/10.1007/978-3-030-22767-8_405
- Pupovac, V., Popović, S., & Blažina, V. (2019). What prevents students from reporting academic misconduct? A survey of Croatian students. *Journal of Academic Ethics*, 17, 389–400. <https://doi.org/10.1007/s10805-019-09341-5>
- Rafols, I., Porter, A. L., & Leydesdorff, L. (2010). Science overlay maps: A new tool for research policy and library management. *Journal of the American Society for Information Science and Technology*, 61(9), 1871–1887. <https://doi.org/10.1002/asi.21368>
- Retraction Watch (2016). Springer BMC retracting nearly 60 papers for fake reviews and other issues. *Retraction Watch. The Center for Scientific Integrity*. 1 November 2016. Retrieved 26 April 2024.
- Rodrigues, M., Silva, R., Borges, A. P., Franco, M., & Oliveira, C. (2024). Artificial intelligence: Threat or asset to academic integrity? A bibliometric analysis. *Kybernetes*, 1–32. <https://doi.org/10.1108/K-09-2023-1666>
- Rogerson, A. M. (2017). Detecting contract cheating in essay and report submissions: Process, patterns, clues and conversations. *International Journal of Educational Integrity*, 13(10). <https://doi.org/10.1007/s40979-017-0021-6>
- Seligman, P., & Smith, S. (2004). *Detecting unauthorized use in online journal archives: A case study*. Proceedings of the IADIS International Conference on www/Internet, Oct 2004. <https://www.cs.dartmouth.edu/~sws/pubs/ss04b.pdf>
- Specht, A., & Crowston, K. (2022). Interdisciplinary collaboration from diverse science teams can produce significant outcomes. *PLoS One*, 17(11), e0278043. <https://doi.org/10.1371/journal.pone.0278043>
- Stephens, J. M., & Bertram Gallant, T. (2023). Enhancing moral sensitivity in the aftermath of academic misconduct: Results from a quasi-experimental field study. *Journal of Moral Education*, 1–16. <https://doi.org/10.1080/03057240.2023.2268298>
- Stoesz, B. M., Eaton, S. E., Miron, J., et al. (2019). Academic integrity and contract cheating policy analysis of colleges in Ontario, Canada. *International Journal of Academic Integrity*, 15(4). <https://doi.org/10.1007/s40979-019-0042-4>
- Stone, W. R. (2003). Plagiarism, duplicate publication, and duplicate submission: They are all wrong! [Editorial]. *IEEE Antennas and Propagation Magazine*, 45(4), 47–49. <https://doi.org/10.1109/MAP.2003.1241310>

- Subbaraman, N. (2024). *Superconductor scientist engaged in research misconduct, probe finds*. *Wall Street Journal*. <https://www.wsj.com/science/physics/superconductor-scientist-engaged-in-research-misconduct-probe-finds-d692898c>
- Summers, A., Wadsworth, D., Bratby, K., Hobbs, E., & Wood, D. (2021). The experiences of healthcare students who have been accused of breaching academic integrity: A study protocol. *International Journal of Qualitative Methods*, 20. <https://doi.org/10.1177/16094069211018408>
- Supak-Smocić, V., & Bilić-Zulle, L. (2013). How do we handle self-plagiarism in submitted manuscripts? *Biochemical Medicine (Zagreb)*, 23(2), 150–163. <https://doi.org/10.11613/bm.2013.019>
- Sutton, A., & Taylor, D. (2011). Confusion about collusion: Working together and academic integrity. *Assessment & Evaluation in Higher Education*, 36(7), 831–841. <https://doi.org/10.1080/02602938.2010.488797>
- Tang, X., Wang, Y., & Yi, H. (2023). Data manipulation through patronage networks: Evidence from environmental emissions in China. *Journal of Public Administration Research and Theory*, 33(2), 342–356. <https://doi.org/10.1093/jopart/muac019>
- Tauginiienė, L. (2016). Embedding Academic Integrity in Public universities. *Journal of Academic Ethics*, 14, 327–344. <https://doi.org/10.1007/s10805-016-9268-4>
- Tauginiienė, L., Gaizauskaitė, I., Razi, S., Glendinning, I., Sivasubramaniam, S., Marino, F., Cosentino, M., Anohina-Naumeca, A., & Kravjar, J. (2019). Enhancing the taxonomies relating to academic integrity and misconduct. *Journal of Academic Ethics*, 17, 345–361. <https://doi.org/10.1007/s10805-019-09342-4>
- Teixeira, A. A. C., de Fátima, O., & Rocha, M. (2010). Academic misconduct in Portugal: Results from a large-scale survey to university economics/business students. *Journal of Academic Ethics*, 8, 21–41. <https://doi.org/10.1007/s10805-010-9102-3>
- Um, S. (2023). Honesty: Respect for the right not to be deceived. *Journal of Moral Education*, 1–15. <https://doi.org/10.1080/03057240.2023.2199347>
- Urlings, M. J. E., Duyx, B., Swaen, G. M. H., Bouter, L. M., & Zeegers, M. P. (2019). Selective citation in scientific literature on the human health effects of bisphenol A. *Research Integrity and Peer Review*, 4, 6. <https://doi.org/10.1186/s41073-019-0065-7>
- van Raan, A. F. J. (2005). Fatal attraction: Conceptual and methodological problems in the ranking of universities by bibliometric methods. *Scientometrics*, 62(1), 133–143. <https://doi.org/10.1007/s11192-005-0009-4>
- Vellanki, S. S., Mond, S., & Khan, Z. K. (2023). Promoting academic integrity in remote/online assessment–EFL teachers’ perspectives. *Teaching English as a Second Language Electronic Journal (TESL-EJ)*, 26(4). <https://doi.org/10.55593/ej.26104a7>
- Walker, M., & Townley, C. (2012). Contract cheating: A new challenge for academic honesty. *Journal of Academic Ethics*, 10, 27–44.
- Winardi, R. D., Mustikarini, A., & Anggraeni, M. A. (2017). Academic dishonesty among accounting students: Some Indonesian evidence. *Jurnal Akuntansi Dan Keuangan Indonesia*, 14(2), Article 2. <https://scholarhub.ui.ac.id/jaki/vol14/iss2/2>
- Wortzman, B., Stephens-Martinez, K., Minnes, M., Ola, O., & Blank, A. (2023). Who’s Cheating Whom: Changing the Narrative Around Academic Misconduct. In Proceedings of the 54th ACM Technical Symposium on Computer Science Education V. 2 (SIGCSE 2023). Association for Computing Machinery, New York, NY, USA, 1210–1211. <https://doi.org/10.1145/3545947.3569609>
- Yadav, S., & Rawal, G. (2018). Ghostwriters in the scientific world. *The Pan African Medical Journal*, 30, 217. <https://doi.org/10.11604/pamj.2018.30.217.16312>
- Yakimischak, D. (2003). Unauthorized access to licensed resources in the scholarly community. *Library Hi Tech News*, 20(2). <https://doi.org/10.1108/lhtn.2003.23920baf.003>
- Young, R. L., Miller, G. N. S., & Barnhardt, C. L. (2018). From policies to principles: The effects of campus climate on academic integrity, a mixed methods study. *Journal of Academic Ethics*, 16, 1–17. <https://doi.org/10.1007/s10805-017-9297-7>
- Yu, Y., & Li, N. (2022). *Design of a tool for checking academic integrity and content consistency of paper abstracts*. Proc. SPIE 12168, International Conference on Computer Graphics, Artificial Intelligence, and Data Processing (ICCAID 2021), 121681F (18 March 2022). <https://doi.org/10.1117/12.2631139>
- Zachek, A. (2020). The history, evolution, and trends of academic dishonesty: A literature review. *The Nebraska Educator: A Student-Led Journal* 53. <https://digitalcommons.unl.edu/needucator/53>
- Zakhiyah, I., Suprpto, N., & Setyarsih, W. (2021). Prezi mind mapping media in physics learning: A bibliometric analysis. *Journal of Physics: Conference Series*, 2110(1), 012015. <https://doi.org/10.1088/1742-6596/2110/1/012015>

Zheng, Y., Epitropaki, O., Graham, L., & Caveney, N. (2022). Ethical leadership and ethical voice: The mediating mechanisms of value internalization and integrity identity. *Journal of Management*, 48(4), 973–1002. <https://doi.org/10.1177/01492063211002611>

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Springer Nature or its licensor (e.g. a society or other partner) holds exclusive rights to this article under a publishing agreement with the author(s) or other rightsholder(s); author self-archiving of the accepted manuscript version of this article is solely governed by the terms of such publishing agreement and applicable law.