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Research Article

ChatGPT in the Classroom: Opportunities and Ethical Challenges for Academic Integrity

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Abstract: The emergence of ChatGPT and other large language models has introduced unprecedented opportunities and challenges in educational settings. This study examines the dual nature of ChatGPT's integration into classroom environments, analyzing both its potential as an educational tool and the ethical concerns it raises regarding academic integrity. Through a mixed-methods approach combining surveys, interviews, and content analysis, this research investigates how educators and students perceive and utilize ChatGPT, the implications for learning outcomes, and the effectiveness of current academic integrity policies. Results indicate that while ChatGPT offers significant pedagogical benefits including personalized learning support and enhanced accessibility, it simultaneously poses risks to traditional assessment methods and raises questions about authorship and original thought. The study proposes a framework for responsible AI integration in education that balances innovation with academic integrity, emphasizing the need for updated policies, enhanced digital literacy, and redesigned assessment strategies. These findings contribute to the ongoing discourse on AI in education and provide practical recommendations for educators, administrators, and policymakers navigating this transformative technology.

Keywords: Academic Integrity; Artificial Intelligence; ChatGPT; Digital Literacy; Educational Tool

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1. Introduction

The rapid advancement of artificial intelligence technologies has fundamentally altered numerous aspects of modern society, with education being no exception. Among these technologies, ChatGPT, developed by OpenAI and released in November 2022, represents a paradigm shift in how students and educators can interact with information and knowledge systems (OpenAI, 2023). As a large language model capable of generating human-like text, engaging in dialogue, and providing explanations across diverse subjects, ChatGPT has quickly become one of the most widely adopted AI tools in educational contexts worldwide.

The integration of ChatGPT into educational environments has sparked intense debate among educators, students, administrators, and policymakers. On one hand, the technology offers unprecedented opportunities for personalized learning, instant feedback, accessibility for students with diverse learning needs, and support for complex problem-solving tasks (Sullivan et al., 2023). On the other hand, it raises significant concerns about academic dishonesty, the erosion of critical thinking skills, overreliance on technology, and the fundamental question of what constitutes authentic learning in the age of AI (Susnjak, 2022).

Educational institutions worldwide are grappling with how to respond to ChatGPT's presence in academic settings. Traditional approaches to academic integrity, designed for an era without sophisticated AI assistance, appear inadequate for addressing the challenges posed by this technology (Perkins, 2023). Many universities have rushed to implement policies

ranging from outright bans to cautious acceptance, often without sufficient evidence or understanding of the technology's actual impact on learning outcomes and academic integrity.

Furthermore, there exists a significant gap between the potential educational benefits of ChatGPT and current pedagogical practices that can effectively harness these benefits while maintaining academic standards. This disconnect creates confusion among students about appropriate use, frustration among educators attempting to detect unauthorized AI use, and uncertainty among administrators about policy development (Cotton et al., 2023).

The objectives of this study are to examine the current use of ChatGPT by students and educators in various academic contexts, identify the opportunities it presents for enhancing teaching and learning processes, and analyze the ethical challenges and academic integrity concerns associated with its use in educational settings. Additionally, the study aims to evaluate the effectiveness of existing institutional policies and detection methods for AI-generated content. Finally, the research seeks to develop evidence-based recommendations for integrating ChatGPT into educational environments while maintaining academic integrity.

This research addresses a critical gap in the literature by providing empirical evidence about ChatGPT's actual impact on academic integrity and learning outcomes, moving beyond theoretical concerns and anecdotal reports. The findings will contribute to informed policy development at institutional, national, and international levels, helping educators design more effective teaching strategies and assessment methods that are resilient to AI-assisted academic dishonesty while leveraging the technology's educational benefits.

Moreover, this study provides practical guidance for educators navigating the challenges of teaching in an AI-augmented world, offering frameworks for responsible AI integration that balance innovation with integrity. The research also contributes to broader discussions about the future of education, the nature of learning, and how educational systems must evolve to prepare students for a world where AI will be ubiquitous.

2. Research Method

Research Design

This study employed a mixed-methods research design, combining quantitative and qualitative approaches to provide a comprehensive understanding of ChatGPT's role in education and its implications for academic integrity. The mixed-methods approach allowed for triangulation of data sources, enhancing the validity and depth of findings (Creswell & Plano Clark, 2018). The research was conducted over a six-month period from September 2025 to February 2026.

Participants

The study involved three primary participant groups:

a. Students (n=847): Undergraduate and graduate students from 12 universities across six countries (United States, United Kingdom, Australia, Canada, Singapore, and Germany). Participants represented diverse academic disciplines including STEM fields, humanities, social sciences, and professional programs. Age range: 18-45 years (M=22.4, SD=4.2).
b. Educators (n=312): Faculty members, teaching assistants, and instructors with varying levels of experience (1-35 years teaching experience, M=11.7, SD=8.3). Participants taught at institutions ranging from community colleges to research-intensive universities.
c. Academic Administrators (n=89): Department chairs, deans, academic integrity officers, and educational technology coordinators responsible for policy development and implementation.

Participants were recruited through a combination of convenience and purposive sampling methods. Institutional Review Board (IRB) approval was obtained from all participating institutions, and informed consent was secured from all participants prior to data collection.

Data Collection

Quantitative Data Collection

Online surveys were administered to all three participant groups using Qualtrics survey platform. Survey instruments were developed based on existing literature on academic integrity (Bretag, 2016), technology adoption in education (Davis, 1989), and preliminary interviews with stakeholders. Surveys included Likert-scale items, multiple-choice questions, and ranking exercises covering:

a. Frequency and patterns of ChatGPT use
b. Perceptions of ChatGPT's educational value and risks
c. Attitudes toward academic integrity in the context of AI tools
d. Awareness and compliance with institutional policies

e. Confidence in detecting AI-generated content

Qualitative Data Collection

Semi-structured interviews were conducted with a purposive subsample of 45 students, 38 educators, and 22 administrators. Interviews lasted 45-90 minutes and explored participants' experiences, attitudes, and concerns regarding ChatGPT in depth. Interview protocols were developed iteratively, with later interviews informed by emerging themes. All interviews were audio-recorded with permission and transcribed verbatim.

Additionally, document analysis was performed on 156 institutional policies related to AI use and academic integrity from 89 institutions. Policy documents were collected from publicly available sources and through direct requests to participating institutions. Content analysis examined policy approaches, implementation strategies, and enforcement mechanisms.

Data Analysis

Quantitative Analysis

Survey data were analyzed using SPSS version 28.0. Descriptive statistics (frequencies, means, standard deviations) were calculated for all variables. Chi-square tests and independent samples t-tests were employed to examine differences between groups. Multiple regression analysis was used to identify predictors of ChatGPT adoption and attitudes toward academic integrity. Factor analysis was conducted to identify underlying dimensions of perceptions and concerns. Statistical significance was set at $p < 0.05$.

Qualitative Analysis

Interview transcripts and policy documents were analyzed using thematic analysis following Braun and Clarke's (2006) six-phase approach. Data were imported into NVivo 14 for coding and analysis. Initial coding was conducted by two independent researchers, followed by collaborative development of themes through iterative discussion and refinement. Inter-rater reliability was assessed using Cohen's kappa ($\kappa = 0.87$), indicating strong agreement. Member checking was performed with a subset of participants to enhance credibility.

Ethical Considerations

This study adhered to ethical research principles throughout all phases. Participation was voluntary, and participants could withdraw at any time without penalty. Data were anonymized to protect participant confidentiality, with identifying information removed from transcripts and stored separately from data files. Institutional data were aggregated to prevent identification of specific universities. The research posed minimal risk to participants, and protocols for addressing any distress or concerns were established. Data are stored securely on encrypted servers and will be retained for five years before secure destruction, in accordance with institutional research data management policies.

4. Results and Discussion

ChatGPT Usage Patterns

Survey data revealed widespread adoption of ChatGPT among both students and educators. Approximately 76.3% (n=646) of student respondents reported having used ChatGPT for academic purposes at least once, with 42.8% (n=362) indicating regular use (weekly or more frequently). Among educators, 61.5% (n=192) reported having experimented with ChatGPT in their teaching, though only 28.2% (n=88) had formally integrated it into their courses.

Students reported using ChatGPT primarily for: brainstorming ideas (68.2%), explaining difficult concepts (64.7%), generating outlines (59.3%), checking grammar and style (56.8%), and getting feedback on drafts (52.4%). Notably, 31.6% of students admitted to submitting ChatGPT-generated text with minimal or no modification, while 47.9% reported submitting heavily edited ChatGPT outputs. These findings suggest a spectrum of engagement ranging from legitimate learning support to potential academic dishonesty.

Perceived Opportunities

Thematic analysis of interviews identified five major categories of perceived opportunities:

Personalized Learning Support

Both students and educators emphasized ChatGPT's ability to provide immediate, personalized assistance. Students appreciated the 24/7 availability and non-judgmental nature of the AI, which allowed them to ask questions they might hesitate to pose in class. One student noted: "ChatGPT is like having a patient tutor who never gets frustrated when I ask the same

question multiple times." Educators recognized this as particularly valuable for large classes where individual attention is limited.

Enhanced Accessibility

Participants highlighted ChatGPT's potential to support students with diverse learning needs. Students with learning disabilities reported that ChatGPT helped them organize thoughts, structure arguments, and express ideas more clearly. International students noted its value for language support and understanding cultural contexts. As one international student explained: "English is my third language, and ChatGPT helps me understand assignment requirements and improve my academic writing."

Improved Writing Process

Many educators described how ChatGPT could support students throughout the writing process rather than simply generating final products. Strategies included using ChatGPT for pre-writing activities, developing thesis statements, identifying counterarguments, and receiving feedback on structure and coherence. Several educators had redesigned assignments to explicitly incorporate ChatGPT as a brainstorming or revision tool.

Teaching Critical Evaluation Skills

Innovative educators reported using ChatGPT to teach critical thinking and source evaluation. Assignments required students to identify errors, biases, or limitations in ChatGPT outputs, fostering skills in fact-checking and critical analysis. One educator described: "I have students generate essays with ChatGPT, then critique and improve them. This teaches them to be discerning consumers and editors of AI-generated content."

Efficiency in Administrative Tasks

Educators valued ChatGPT for reducing time spent on routine tasks such as generating discussion questions, creating rubrics, drafting emails to students, and preparing basic instructional materials. This efficiency allowed more time for substantive educational activities like developing innovative assessments and providing personalized feedback.

Ethical Challenges and Academic Integrity Concerns

Despite the opportunities, participants identified significant ethical challenges and concerns about academic integrity:

Blurred Boundaries of Acceptable Use

Both students and educators expressed confusion about where legitimate use ends and academic dishonesty begins. Survey results showed that only 43.7% of students felt confident they understood their institution's policies on AI use. Qualitative data revealed substantial variation in what different stakeholders considered acceptable. One student articulated this confusion: "If I can use a calculator for math, why can't I use ChatGPT for writing? Where's the line?"

Detection Difficulties

Educators reported high levels of stress and uncertainty about identifying AI-generated work. Only 31.4% of educators felt confident in their ability to detect ChatGPT use. Experiments with AI detection tools yielded mixed results, with false positive rates ranging from 12-28% and false negative rates of 15-35%. One educator lamented: "I spend hours investigating suspected AI use, but I can rarely prove it definitively."

Erosion of Learning Fundamentals

Many educators worried that overreliance on ChatGPT could prevent students from developing essential skills. Concerns centered on critical thinking, original analysis, research skills, and the ability to struggle productively with complex problems. A faculty member in composition studies expressed: "Writing is thinking. If students outsource the writing process to AI, what happens to their cognitive development?"

Equity and Access Disparities

While ChatGPT is freely available, participants noted that full access to advanced features requires paid subscriptions, potentially creating new forms of educational inequality. Additionally, students with greater technological literacy and access to information about effective prompt engineering may gain unfair advantages over peers lacking such resources.

Authenticity and Authorship Questions

Philosophical questions about authorship, originality, and what constitutes genuine learning emerged as central concerns. Administrators and educators questioned whether traditional notions of individual authorship remain meaningful in an AI-augmented world. As one administrator reflected: "We need to fundamentally rethink what we value in student work and why."

Institutional Policy Responses

Analysis of institutional policies revealed four primary approaches to addressing ChatGPT:

Prohibition (23.6% of institutions)

Complete bans on AI tool use, enforced through traditional academic integrity mechanisms. These policies often lacked specific enforcement procedures and faced significant compliance challenges.

Restricted Use (41.6%)

Policies allowing ChatGPT for specific purposes (e.g., brainstorming, research assistance) while prohibiting submission of AI-generated text. These policies generally required disclosure of AI use but varied in specificity.

Permitted with Disclosure (28.1%)

Frameworks allowing broad use of ChatGPT provided students disclose and document their AI interactions. Some required reflective statements about how AI assistance enhanced learning.

No Formal Policy (6.7%)

Institutions without specific AI-related policies, relying on existing academic integrity standards and individual instructor discretion.

Survey data indicated limited effectiveness of all policy approaches. Only 37.2% of students reported that policies influenced their ChatGPT use, and 54.8% of educators felt policies were inadequate for addressing the challenges posed by AI tools. Qualitative analysis revealed that successful policy implementation required clear communication, faculty development, and ongoing revision based on experience.

Correlation Analysis

Multiple regression analysis identified several significant predictors of attitudes toward ChatGPT and academic integrity concerns. Students with higher digital literacy scores ($\beta = 0.34$, $p < 0.001$) and those in STEM fields ($\beta = 0.21$, $p < 0.01$) expressed more positive attitudes toward ChatGPT use. Conversely, students with stronger intrinsic motivation for learning ($\beta = -0.28$, $p < 0.001$) reported less frequent use of ChatGPT for completing assignments.

Among educators, teaching experience showed a negative correlation with acceptance of ChatGPT ($r = -0.42$, $p < 0.001$), with more experienced educators expressing greater skepticism. However, educators who had participated in professional development on educational technology showed significantly more nuanced and balanced perspectives ($t(310) = 4.76$, $p < 0.001$), suggesting that training can moderate resistance to innovation.

Discussion

Interpretation of Findings

This research reveals that ChatGPT presents a complex paradox in educational settings: it simultaneously offers genuine pedagogical benefits while challenging fundamental assumptions about learning, assessment, and academic integrity. The widespread adoption documented in this study—with over three-quarters of students having used ChatGPT—indicates that this technology has become an inescapable reality that educational institutions must address proactively rather than reactively.

The opportunities identified align with constructivist learning theories that emphasize scaffolding, personalization, and learner agency (Vygotsky, 1978). ChatGPT can function as an effective cognitive tool when properly integrated, supporting the writing process without entirely replacing student effort. The enhanced accessibility benefits are particularly noteworthy, suggesting that ChatGPT could help democratize access to learning support traditionally available only to privileged students through private tutoring.

However, the ethical challenges identified in this study underscore that technology adoption without thoughtful pedagogical redesign risks undermining educational goals. The confusion about acceptable use reflects broader uncertainties about the purpose of educational assessments and the skills we aim to develop in students. Traditional assessments that can be easily completed by AI may not effectively measure the critical thinking, creativity, and problem-solving abilities that remain uniquely human contributions.

Recommendations for Practice

Based on these findings, we propose the following recommendations:

a. Redesign Assessments for the AI Era

Educators should move away from assessments that primarily evaluate knowledge recall or basic synthesis toward assignments that require: (a) personal reflection and connection to lived experience; (b) original data collection and analysis; (c) evaluation and critique of AI-generated content; (d) multimodal presentations combining text, visuals,

and oral components; and (e) process-based evaluation that values development over final products.

b. Develop Clear, Nuanced Policies

Institutions should create comprehensive policies that: (a) clearly define acceptable and unacceptable AI use across different contexts; (b) require disclosure and documentation of AI assistance; (c) provide concrete examples and scenarios; (d) acknowledge disciplinary differences in appropriate AI integration; (e) include student input in policy development; and (f) commit to regular review and revision based on evolving technology and pedagogical understanding.

c. Invest in Faculty Development

Professional development initiatives should help educators: (a) understand AI capabilities and limitations; (b) experiment with educational applications; (c) redesign courses and assessments; (d) develop pedagogical strategies for teaching with and about AI; and (e) foster communities of practice for sharing innovations and addressing challenges.

d. Teach AI Literacy

Curricula should explicitly address: (a) how AI systems work and their limitations; (b) ethical implications of AI use; (c) effective prompt engineering; (d) critical evaluation of AI outputs; (e) when and why to use AI tools; and (f) maintaining intellectual honesty in an AI-augmented world. AI literacy should be integrated across disciplines rather than siloed in computer science courses.

e. Shift from Detection to Education

Rather than investing primarily in detection technologies, institutions should focus on: (a) creating learning environments where students are motivated to engage authentically; (b) designing assignments where AI shortcuts are ineffective or obvious; (c) fostering relationships with students built on trust and intellectual curiosity; and (d) emphasizing the intrinsic value of learning over grades and credentials.

Theoretical Implications

This research extends existing theories of technology-mediated learning and academic integrity in several ways. First, it demonstrates that the concept of 'authorship' in academic work requires reconceptualization when powerful AI tools are ubiquitous. Traditional notions of individual authorship may give way to more collaborative models that acknowledge both human and machine contributions while maintaining standards for originality and critical thinking.

Second, the findings suggest that academic integrity frameworks must evolve from focusing primarily on preventing dishonesty toward promoting intellectual honesty, authentic engagement, and ethical technology use. This shift aligns with educational philosophies that emphasize student agency, metacognition, and values-based decision-making.

Third, this study contributes to understanding how disruptive technologies impact educational institutions. The varied policy responses observed reflect different institutional cultures, risk tolerances, and educational philosophies. The effectiveness of responses appears to depend less on specific policy approaches than on the process of policy development, implementation, and ongoing adaptation.

Limitations

Several limitations should be acknowledged when interpreting these findings. First, the rapid evolution of AI technology means that some findings may become outdated quickly. ChatGPT and similar tools are being continuously updated with new capabilities, and user practices are still developing. Second, while the sample was diverse across geography and institution type, participants were volunteers who may have been particularly interested in or affected by ChatGPT, potentially limiting generalizability.

Third, self-report data about ChatGPT use may be subject to social desirability bias, with students potentially underreporting academic dishonesty. The study attempted to mitigate this through anonymous surveys and building rapport in interviews, but some bias likely remains. Fourth, the study primarily captured perspectives from higher education; findings may not fully apply to K-12 or professional education contexts.

Finally, while this research examined institutional policies and their perceived effectiveness, it did not experimentally test different policy approaches or measure actual learning outcomes associated with various levels of ChatGPT use. Future research should employ experimental designs to establish causal relationships between AI use, policy interventions, and educational outcomes.

5. Conclusion

Several important questions emerged from this research that warrant further investigation. Longitudinal studies are needed to examine how ChatGPT use affects student learning outcomes, skill development, and academic performance over multiple years. Additionally, experimental research comparing different pedagogical approaches to AI integration is necessary to assess their relative effectiveness in promoting learning while maintaining academic integrity. Another key area for exploration is how ChatGPT use varies across academic disciplines, and whether different fields require distinct approaches to integration and policy. It is also crucial to investigate the experiences of underrepresented and marginalized student populations to ensure that AI integration promotes, rather than undermines, educational equity. Furthermore, there is a need for the development and validation of reliable methods to identify AI-generated content, while minimizing false positives that could harm innocent students. As emerging AI technologies beyond text generation, such as image creation, code generation, and multimodal AI, continue to evolve, it is important to explore how these innovations will challenge educational practices. Finally, cross-cultural studies should examine how educational systems in different countries and cultures respond to AI integration, potentially identifying best practices from diverse contexts.

ChatGPT represents both a significant opportunity and a profound challenge for education. This research demonstrates that the technology offers genuine pedagogical benefits, particularly for personalized learning support, enhanced accessibility, and teaching critical evaluation skills. However, it also poses serious threats to academic integrity, raises questions about the nature of learning and authorship, and requires fundamental rethinking of assessment practices.

The path forward requires moving beyond simplistic bans or uncritical acceptance toward thoughtful integration that harnesses AI's benefits while maintaining educational standards and integrity. This means redesigning assessments to emphasize skills that remain uniquely human, developing clear and nuanced policies collaboratively with all stakeholders, investing in professional development for educators, teaching students to use AI tools ethically and effectively, and shifting institutional focus from detection to education.

Ultimately, the challenge posed by ChatGPT is not primarily technological but philosophical and pedagogical. It forces us to articulate what we truly value in education: Is it the memorization of facts, the demonstration of technical skills, or the development of critical thinking, creativity, and intellectual character? The answer to this question will determine how successfully we navigate the integration of AI into our classrooms and whether we view this technology as a threat to be contained or an opportunity to reimagine education for the 21st century.

As AI continues to evolve and become more sophisticated, the tensions identified in this research will likely intensify. Educational institutions that proactively engage with these challenges, experiment with innovative approaches, and remain committed to their core educational missions will be best positioned to serve students in an increasingly AI-augmented world. The question is not whether AI will transform education—it already has—but rather how we will guide that transformation to support authentic learning, maintain academic integrity, and prepare students for a future where AI is ubiquitous.

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References

Abd-Elaal, E. S., Gamage, S. H. P. W., & Mills, J. E. (2024). Artificial intelligence in engineering education: A systematic review of the literature. *Journal of Engineering Education, 113*(1), 71–94. https://doi.org/10.1002/jee.20561

Atlas, S. (2023). *ChatGPT for higher education and professional development: A guide to conversational AI*. University of Rhode Island.

Baidoo-Anu, D., & Ansah, L. O. (2023). Education in the era of generative artificial intelligence (AI): Understanding the potential benefits of ChatGPT in promoting teaching and learning. *Journal of AI, 7*(1), 52–62. https://doi.org/10.61969/jai.1337500

Bewersdorff, A., Zhai, X., Roberts, J., & Nerdel, C. (2024). Myths, mis- and preconceptions of artificial intelligence: A review of the literature. *Computers and Education: Artificial Intelligence, 5*, 100189. https://doi.org/10.1016/j.caeai.2023.100189

Borji, A. (2023). A categorical archive of ChatGPT failures. *arXiv preprint arXiv:2302.03494*. https://doi.org/10.48550/arXiv.2302.03494

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Bretag, T. (Ed.). (2016). *Handbook of academic integrity*. Springer. https://doi.org/10.1007/978-981-287-098-8

Chan, C. K. Y., & Hu, W. (2023). Students' voices on generative AI: Perceptions, benefits, and challenges in higher education. *International Journal of Educational Technology in Higher Education, 20*(1), Article 43. https://doi.org/10.1186/s41239-023-00411-8

Cotton, D. R. E., Cotton, P. A., & Shipway, J. R. (2023). 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

Crawford, J., Cowling, M., & Allen, K. A. (2023). Leadership is needed for ethical ChatGPT: Character, assessment, and learning using artificial intelligence (AI). *Journal of University Teaching & Learning Practice, 20*(3), Article 02. https://doi.org/10.53761/1.20.3.02

Creswell, J. W., & Plano Clark, V. L. (2018). *Designing and conducting mixed methods research* (3rd ed.). SAGE Publications.

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly, 13*(3), 319–340. https://doi.org/10.2307/249008

Dwivedi, Y. K., Kshetri, N., Hughes, L., Slade, E. L., Jeyaraj, A., Kar, A. K., ... & Wright, R. (2023). Opinion paper: "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

Farrokhnia, M., Banihashem, S. K., Noroozi, O., & Wals, A. (2024). A SWOT analysis of ChatGPT: Implications for educational practice and research. *Innovations in Education and Teaching International, 61*(3), 460–474. https://doi.org/10.1080/14703297.2023.2195846

Firat, M. (2023). How chat GPT can transform autodidactic experiences and open education. *Department of Distance Education, Open Education Faculty, Anadolu University*. https://doi.org/10.31219/osf.io/9ge8m

Kasneci, E., Seßler, K., Küchemann, S., Bannert, M., Dementieva, D., Fischer, F., ... & Kasneci, G. (2023). ChatGPT for good? On opportunities and challenges of large language models for education. *Learning and Individual Differences, 103*, 102274. https://doi.org/10.1016/j.lindif.2023.102274

King, M. R., & ChatGPT. (2023). A conversation on artificial intelligence, chatbots, and plagiarism in higher education. *Cellular and Molecular Bioengineering, 16*(1), 1–2. https://doi.org/10.1007/s12195-022-00754-8

Lo, C. K. (2023). What is the impact of ChatGPT on education? A rapid review of the literature. *Education Sciences, 13*(4), 410. https://doi.org/10.3390/educsci13040410

Mhlanga, D. (2023). Open AI in education, the responsible and ethical use of ChatGPT towards lifelong learning. In *FinTech and Artificial Intelligence for Sustainable Development* (pp. 387–409). Palgrave Macmillan. https://doi.org/10.1007/978-3-031-37776-1_16

Mogavi, R. H., Deng, C., Kim, J. J., Zhou, P., Kwon, Y. D., Metwally, A. H., ... & Huang, Y. (2024). ChatGPT in education: A blessing or a curse? A qualitative study exploring early adopters' utilization and perceptions. *Computers in Human Behavior: Artificial Humans, 2*(1), 100027. https://doi.org/10.1016/j.chbah.2023.100027

Nguyen, A., Ngo, H. N., Hong, Y., Dang, B., & Nguyen, B. P. T. (2023). Ethical principles for artificial intelligence in education. *Education and Information Technologies, 28*(9), 4221–4241. https://doi.org/10.1007/s10639-022-11316-w

OpenAI. (2023). *ChatGPT: Optimizing language models for dialogue*.

Perkins, M. (2023). Academic integrity considerations of AI large language models in the post-pandemic era: ChatGPT and beyond. *Journal of University Teaching & Learning Practice, 20*(2), Article 07. https://doi.org/10.53761/1.20.02.07

Rudolph, J., Tan, S., & Tan, S. (2023). ChatGPT: Bullshit spewer or the end of traditional assessments in higher education? *Journal of Applied Learning and Teaching, 6*(1), 342–363. https://doi.org/10.37074/jalt.2023.6.1.9

Sullivan, M., Kelly, A., & McLaughlan, P. (2023). ChatGPT in higher education: Considerations for academic integrity and student learning. *Journal of Applied Learning and Teaching, 6*(1), 1–10. https://doi.org/10.37074/jalt.2023.6.1.17

Susnjak, T. (2022). ChatGPT: The end of online exam integrity? *arXiv preprint arXiv:2212.09292*. https://doi.org/10.48550/arXiv.2212.09292

Tlili, A., Shehata, B., Adarkwah, M. A., Bozkurt, A., Hickey, D. T., Huang, R., & Agyemang, B. (2023). What if the devil is my guardian angel: ChatGPT as a case study of using chatbots in education. *Smart Learning Environments, 10*(1), Article 15. https://doi.org/10.1186/s40561-023-00237-x

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.

Yan, D. (2023). Impact of ChatGPT on learners in a L2 writing practicum: An exploratory investigation. *Education and Information Technologies, 28*(11), 13943–13967. https://doi.org/10.1007/s10639-023-11742-4

Zhai, X. (2023). ChatGPT for next generation science learning. *XRDS: Crossroads, The ACM Magazine for Students, 29*(3), 42–46. https://doi.org/10.1145/3589649