

Digital Policy Hub – Working Paper

# Language Power-Up: Are LLMs a Fair Play for International Students?

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## About the Hub

The Digital Policy Hub at CIGI is a collaborative space for emerging scholars and innovative thinkers from the social, natural and applied sciences. It provides opportunities for undergraduate and graduate students and post-doctoral and visiting fellows to share and develop research on the rapid evolution and governance of transformative technologies. The Hub is founded on transdisciplinary approaches that seek to increase understanding of the socio-economic and technological impacts of digitalization and improve the quality and relevance of related research. Core research areas include data, economy and society; artificial intelligence; outer space; digitalization, security and democracy; and the environment and natural resources.

The Digital Policy Hub working papers are the product of research related to the Hub's identified themes prepared by participants during their fellowship.

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## Partners

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## Key Points

- Canada is a prominent destination for international students, whose proficiency in English-language tests does not always align with strict academic writing norms, requiring additional effort and personalized attention that universities often lack the resources to sufficiently provide.
- Large language models (LLMs) through generative artificial intelligence (AI) offer a unique opportunity to bridge linguistic gaps, assisting non-native English speakers in achieving academic writing fluency and linguistic proficiency at scale, while minimizing universities' costs.
- Despite the potential benefits, ethical concerns arise regarding LLMs' fair use in aiding students, particularly concerning plagiarism implications, the risk of overdependence and the reliability of AI detection tools.
- This paper explores how exactly LLMs assist international students, the ethical considerations of their usage – backed by recent studies and scholars' insights – and suggests a university policy framework for responsible generative AI use in academic settings.

## Background

The international education sector has grown over the past decades, and Canada is widely recognized as one of the leading destinations for international students (Government of Canada 2020). These students represent a substantial income source, annually contributing more than \$22.3 billion, roughly 1.16 percent of Canada's GDP.<sup>1</sup> Their economic influence extends beyond tuition fees, including living expenses, accommodation and additional expenditures, contributing to a broader spectrum beyond education. This enrichment also strengthens social cohesion and promotes international development through knowledge exchange and partnerships.

The acceptance of international students to Canadian universities depends highly on language exam scores (for example, the International English Language Testing System or the Test of English as a Foreign Language). Proficiency in English, as evaluated by these standardized language tests, stands as a crucial criterion for admission, reflecting the significance of language competency in ensuring successful academic engagement and integration within Canadian higher education institutions (Arcuino 2013). While students may demonstrate proficiency in passing English language tests, the adaptation to formal academic writing norms requires extra dedication of a student's time and effort. Even students for whom English is their native language, writing can be challenging as the adjustment to academic writing involves more than basic linguistic elements such as grammar, vocabulary and sentence structure; it also includes meta-linguistic components such as establishing logical connections between sentences, developing coherent paragraphs and organizing

<sup>1</sup> See [www.canada.ca/en/immigration-refugees-citizenship/corporate/transparency/committees/cimm-mar-03-2022/international-students.html](http://www.canada.ca/en/immigration-refugees-citizenship/corporate/transparency/committees/cimm-mar-03-2022/international-students.html).

content cohesively (Dong 1998). The language assessments typically emphasize standard language components, often failing to thoroughly assess an individual's overall proficiency in academic content (Zane and Yeh 2002). Academic writing demands the skill to concisely convey sophisticated concepts, engage with existing literature and formulate original insights, which are not adequately measured in these assessments that often prioritize shorter, standardized writing samples over the comprehensive range of academic writing required by universities (ibid.).

Knowing all the theoretical aspects of a language does not necessarily mean someone can apply them effectively in practice (Read 2019). This causes constant doubt, anxiety and worry about every spelling mistake, comma placement or sentence structure — whether it sounds academically appropriate and natural to English speakers — and it can be quite overwhelming for international students who are already burdened by the weight of adapting to a new country, culture and people (Deuchar 2022). As a result, the emphasis on perfecting these linguistic details may overshadow the absorption of the actual content being taught (Ali, Yoenanto and Nurdibyanandaru 2020). However, the need for individualized support in language learning surpasses the capacity of resources available within universities, creating limitations in effectively helping them to reach their full potential in knowledge acquisition and language proficiency.

AI has already become an integral part of all students' daily routines: from assisting with assignments and aiding in research to optimizing study schedules and enabling collaborative work via digital platforms (Altmäe, Sola-Leyva and Salumets 2023). LLMs specifically are conquering education and academic writing in both positive and negative ways, impacting students regardless of their primary language (Dwivedi et al. 2023). Just like the calculator shifted students away from manual arithmetic computation by introducing efficiency in mathematical tasks, the advent of the internet redefined access to information, transforming the way students conduct research and gather knowledge. LLMs have quickly invaded student life, fundamentally altering how they engage with everything, requiring a reassessment of traditional learning boundaries. Accordingly, a great number of scholars have turned their attention toward the potential impact of LLMs on student academic achievements.

## Functionality, Limitations and Student Usage

Scholarly examination of the rapidly changing field of AI shows that there is a significant gap between the perceptions held by those in power within education systems — teachers, professors and faculty — regarding how students use AI in their written assignments, and how they actually use it (Antony and Ramnath 2023). The common misconception among educators is that AI is solely responsible for writing entire essays on behalf of students, but that is not how it truly operates. For instance, in a comprehensive review of 146 studies, Olaf Zawacki-Richter et al. (2019) identified 150 diverse applications of AI, which they grouped into four main categories: assessment, prediction, intelligent tutoring systems and personalization. This indicates that in most studies, AI tools were associated with distinct roles within these categories. This trend is also evident in academic literature exploring the role of chatbots in

education (Ng et al. 2022). Mohammad Amin Kuhail et al.'s (2023) review of studies specifically on educational chatbots revealed that 37 chatbot applications fulfilled one or more of four specific roles: teaching agent, peer agent, teachable agent or motivational agent. AI is so much more than just a tool; it is the set of transformative possibilities reshaping educational landscapes and fostering personalized learning (ibid.).

Students today are informed about the pitfalls of biases, misinformation and LLMs' hallucination through the extensive media coverage and academic discussions that have significantly contributed to their awareness of these issues (Antony and Ramnath 2023). As a result, most students are cognizant of the drawbacks associated with blindly accepting information or employing a copy-and-paste approach using LLMs in their assignments (ibid.). Studies show that they are conscious of the risks of relying solely on unverified sources or automated output and are remarkably savvy and adept at navigating this technology. Recent scholarly research indicates that students predominantly use it as a grammar checker or guided assistant, seeking thesis suggestions, linguistic checks and structured outlines, rather than solely as an authoring tool (ibid.).

LLMs' adaptability in tailoring responses and understanding language conventions can significantly benefit international students. They can offer personalized feedback to students engaged in academic writing tasks or offer suggestions for improving clarity, coherence and cohesion within the text. They can assist in identifying and rectifying common writing errors, thus fostering a more polished and refined academic writing style among students (Chase et al. 2009). By providing targeted guidance and explanations, these models can help academic institutions to create a more accessible and inclusive learning environment for non-native English-speaking students, catering to their diverse learning styles and accommodating their individual needs (Fryer et al. 2017). This integration would not replace the essential role of educators, however, but complement their efforts by providing tailored, on-demand assistance to students without having them spend their time on mundane and repetitive tasks or explanations (ibid.). It would allow educators to focus on higher-order skills and personalized mentorship, challenging students' critical thinking, research acumen and analytical skills. With LLMs handling certain aspects of language refinement and grammar complexity, teachers can allocate more time in guiding students to develop original ideas, conduct in-depth research and hone their argumentative and collaborative skills (Kim et al. 2022).

However, it remains crucial to approach this integration thoughtfully. As LLMs advance, institutions and educators must ensure that students fully understand the boundaries of AI-generated assistance, emphasizing the importance of critical analysis and independent learning. While LLMs show promise in certain facets of English-language learning and writing, their role should be considered supplementary rather than a substitute, due to the irreplaceable value of human input. This need is especially seen in other languages (for example, Canadian French), where LLMs are less developed, necessitating human intervention in the editing process due to their limitations in comprehending context, nuances and cultural subtleties critical for precise writing and effective communication (Kasneci et al. 2023).

# Dependency Risk

The existing research demonstrates that increased smartphone usage significantly correlates with higher levels of human dependence on it (Lee 2022). Similarly, in the context of LLMs, this paper prompts reflection on the potential consequences of extended reliance on these models for academic writing among non-native English speakers. Just as Bongmin Lee's (2022) study indicates the importance of managing smartphone usage, a thoughtful and cautious approach to integrating LLMs into the academic writing process is needed to ensure that they serve as assistance rather than substitutes for developing language skills and domain knowledge (ibid.). Excessive reliance on LLMs in academic writing may erode students' critical thinking abilities, impede language proficiency development and limit their capacity to independently create original content, potentially compromising adaptability in future workplace settings that demand autonomous problem solving and independent thinking skills. Moreover, this heavy reliance on LLMs raises concerns beyond academia; it initiates challenges regarding verifiable human authorship, introduces various forms of fraud including a new type of plagiarism, violates privacy rights, opens possibilities for circulating counterfeit human-generated content and significantly facilitates the spread of misinformation (Strasser and Wilby 2023).

Some students will inevitably use LLMs beyond their role as just language assistants or grammar checkers, blurring the line between their supportive role and potential overreliance (Zheng et al. 2023). This cultural and educational aspect requires time and thorough explanation to instill the understanding that using LLMs ethically and judiciously is in students' best interests (Hayes and Introna 2005). Ultimately, it is important to recognize and acknowledge that the biggest and the most powerful transformer, just like the "T" in GPT (generative pre-trained transformer), remains the human brain.

# Plagiarism

Plagiarism involves not only copying text verbatim but also appropriating someone else's ideas or work without acknowledgement. LLMs, while not engaging in literal copying, have raised multiple concerns about the potential for plagiarism due to their capacity to summarize and present others' work without proper credit. The inherent nature of LLMs blurs the distinction between original content creation and the re-presentation of existing information, potentially complicating proper sourcing and acknowledgement (McIlhinney 2023).

# AI Detectors

The important point to make is that it is practically impossible to detect students who are employing LLMs (Khalil and Er 2023). The content of the paper might be generated by a computer, yet the writing style could belong to the student. Neither humans nor machines can examine a paper of this nature and identify the telltale signs of generative AI. In addition to the conscientious and self-regulated ethical usage of LLMs, the prospect of these actions being flagged

or identified by AI detectors also warrants attention and consideration. These detectors promise to provide a mechanism for differentiating between content generated by machines and that produced by human authors, thereby aiming to ensure academic integrity and authenticity in written material (ibid.).

The main concern with these detection tools is their unreliable nature, which results in outcomes that are uncertain at best and potentially wrong at worst. The significant apprehension surrounding these tools primarily comes from their lack of reliability in accurately distinguishing between content generated by AI and that created by humans (ibid.). This unreliability poses a considerable challenge and raises doubts about the efficacy and trustworthiness of such detection mechanisms. Most universities in Canada prohibit the use of AI-detection tools in their policies regarding AI, as they often yield high rates of false positives, causing potential harm and discrimination, especially toward international students. This vulnerable group might be most susceptible to potential bias due to the resemblance between their traditional writing styles and the patterns generated by LLMs utilized in the detection tools (Alexander, Savvidou and Alexander 2023). As a result, they might wrongly flag authentic student work as AI-generated, leading to false positives. This can unfairly target and disadvantage international students who naturally produce such writing, potentially resulting in discriminatory outcomes in academic assessments or integrity checks. The use of LLMs is indeed a double-edged sword for international students as it offers benefits for improving language skills and academic performance while simultaneously raises the risk of being incorrectly flagged for academic misconduct (Ibrahim 2023).

## Balancing Advantages and Ethical Considerations

A common recourse for non-native students seeking to enhance their English writing is resorting to commercial professional editing or proofreading services. However, this can pose significant financial burdens, particularly for those from under-resourced countries. Apart from financial constraints, utilizing these services has drawbacks — proofreaders, often native speakers, might lack specialization in specific study areas, leading to potential misinterpretation of the paper. Additionally, these services frequently charge for one-time corrections, making it challenging for non-native authors to obtain further revisions without incurring extra expenses, even if the initial proofreading is inadequate (Kim et al. 2023).

In contrast, LLMs offer an alternative and cost-effective solution as they offer several advantages over traditional English editing services (ibid.). Accessible and interactive, LLMs facilitate revisions or clarifications without added costs. Providing multiple proofreading versions, they enable authors to select the most suitable option for their intended message. With their capacity to generate relatively neutral sentences and minimize grammatical errors, LLMs serve as valuable tools for non-native writers to refine their drafts and enhance English proficiency through interactive learning experiences (Stokel-Walker 2023).

Nevertheless, the integration of LLMs necessitates critical ethical considerations: it extends beyond conventional academic misconduct concerns, delving into broader

ethical implications of authorship, copyright and academic integrity (Mindzak and Eaton 2021). As we navigate these advancements, it becomes important to instigate discussions and establish ethical guidelines within academia. By elevating ethical awareness and fostering responsible utilization of LLMs, we can usher in a new era of academic writing that not only promotes integrity and originality, but also empowers students to embrace innovative technologies for educational enrichment and scholarly advancement (Kooli 2023).

## **University Policy Framework**

The integration of LLMs in education should focus on leveraging their strengths to enhance learning methods while preserving and valuing the unique contributions that humans bring to the educational landscape. Achieving a balance between technological assistance and human guidance is pivotal for ensuring a holistic and effective educational experience for students. It may only be achieved by utilizing a comprehensive framework that includes several critical elements.

### **Cultivating a Cultural Shift toward Honesty and Self-Empowerment in Student Learning**

One aspect of higher education involves instilling values such as academic integrity, honesty and self-empowerment among students. This cultural shift emphasizes the significance of original work, critical thinking and ethical conduct in academic endeavours. By fostering an environment that encourages students to take pride in their unique contributions, universities aim to instill integrity as a core value in their learning journey. This shift not only emphasizes the importance of individual effort and creativity, but also cultivates a community of responsible learners dedicated to ethical practices in their academic pursuits (Zhao et al. 2022).

### **Redefining University Policies for Responsible AI Use**

To facilitate this cultural shift, it becomes imperative for universities to revisit and redefine their policies concerning the responsible use of technology, particularly with the integration of LLMs in education. These policies need to reflect the evolving landscape of technological advancements while maintaining a clear stance on ethical practices and academic integrity. They should outline guidelines that explain to students the appropriate and ethical use of AI tools within the existing academic framework (Yan et al. 2023).

### **Making International Students Beneficiaries, Not Suspects**

It is essential when incorporating LLMs into educational practices to consider the diverse student population, especially international students. Universities need to ensure that the integration of these tools is inclusive and beneficial for all students, irrespective of their backgrounds or language proficiency. Instead of being viewed with suspicion regarding the use of generative AI, international students should be provided with the resources and guidance to leverage it effectively for academic writing enhancement (Dwivedi et al. 2023).



## Communication and Clear Policies

Effective communication plays a pivotal role in this paradigm shift. Universities need to communicate clearly with students, ensuring they understand the parameters of assessments, particularly in relation to the permissible use of AI. Clarity in policies delineating the acceptable boundaries and applications of AI tools within defined assessment processes is crucial. This transparency empowers students to navigate technology within ethical boundaries while ensuring academic standards are upheld. Given the prevalent challenges and uncertainties associated with the use of generative AI detection tools, it is advisable for universities, in a general context, to exercise caution before integrating such tools into their academic integrity frameworks (Chiu 2023). The inherent unreliability and potential for false positives observed in using these tools, as evidenced by experiences across various institutions, raises legitimate concerns regarding their efficacy and accuracy (Yan et al. 2023). Universities must prioritize established methods of addressing academic misconduct suspicions rather than relying solely on AI detection tools. Emphasizing education concerning ethical technology usage and integrity in academic practices should take precedence within university programs and resources.

To reinforce the stance against unethical practices involving generative AI, it is essential for universities to explicitly communicate the implications of using such technology without proper acknowledgement. This aligns with academic misconduct guidelines and serves as a preventive measure (Mindzak and Eaton 2021). When suspicions arise regarding the misuse of generative AI, universities should consider following existing academic misconduct procedures, inviting students for investigative meetings. This ensures fairness and adherence to established protocols while addressing potential breaches of academic integrity (ibid.). By prioritizing education, preventive measures and clear communication regarding the ethical use of technology, universities should aim to maintain academic standards and integrity while navigating the evolving landscape of emerging technologies (Yeralan and Ancona Lee 2023).

## Final Recommendation

We live in an age where machines are constantly learning from our data; allowing humans to also learn from what machines offer is what defines fair play.

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### About the Author

Daria Bielik is a master of public policy candidate through a partnership with the University of Toronto's Munk School of Global Affairs & Public Policy and the Kyiv School of Economics. Her research as a fellow at the Digital Policy Hub will focus on the influence of large language models on student learning outcomes and academic performance in higher education settings.

# Works Cited

- Alexander, Katarzyna, Christine Savvidou and Chris Alexander. 2023. "Who wrote this essay? Detecting AI-generated writing in second language in higher education." *Teaching English with Technology* 23 (2): 25–43. <https://doi.org/10.56297/BUKA4060/XHLD5365>.
- Ali, Shahzad, Nono Yoenanto and Duta Nurdibyanandaru. 2020. "Language Barrier cause of stress among International Students of Universitas Airlangga." *Prasati: Journal of Linguistics* 5 (2). <https://jurnal.uns.ac.id/pjl/article/view/44355>.
- Altmäe, Signe, Alberto Sola-Leyva and Andres Salumets. 2023. "Artificial Intelligence in Scientific Writing: A Friend or a Foe?" *Reproductive Biomedicine Online* 47 (1): 3–9. <https://doi.org/10.1016/j.rbmo.2023.04.009>.
- Antony, Soniya and R. Ramnath. 2023. "A Phenomenological Exploration of Students' Perceptions of AI Chatbots in Higher Education." *IAFOR Journal of Education* 11 (2). <https://doi.org/10.22492/ije.11.2.01>.
- Arcuino, Cathy Lee T. 2013. "The Relationship between the Test of English as a Foreign Language (TOEFL), the International English Language Testing System (IELTS) Scores and Academic Success of International Master's Students." ProQuest Dissertations Publishing.
- Chase, Catherine C., Doris B. Chin, Marily A. Oppezzo and Daniel L. Schwartz. 2009. "Teachable agents and the protégé effect: Increasing the effort towards learning." *Journal of Science Education and Technology* 18 (4): 334–52.
- Chiu, Thomas K. F. 2023. "The Impact of Generative AI (GenAI) on Practices, Policies and Research Direction in Education: A Case of ChatGPT and Midjourney." *Interactive Learning Environments*: 1–17. <https://doi.org/10.1080/10494820.2023.2253861>.
- Deuchar, Andrew. 2022. "The Problem with International Students' 'Experiences' and the Promise of Their Practices: Reanimating Research about International Students in Higher Education." *British Educational Research Journal* 48 (3): 504–18. <https://doi.org/10.1002/berj.3779>.
- Dong, Y. R. 1998. "Non-native graduate students' thesis/dissertation writing in science: self-reports by students and their advisors from two U.S. institutions." *English for Specific Purposes Journal* 17: 369–90.
- Dwivedi, Yogesh K., Nir Kshetri, Laurie Hughes, Emma Louise Slade, Anand Jeyaraj, Arpan Kumar Kar, Abdullah M. Baabdullah, Alex Koochang, Vishnupriya Raghavan, Manju Ahuja, Hanaa Albanna, Mousa Ahmad Albashrawi, Adil S. Al Busaidi, Janarthanan Balakrishnan, Yves Barlette, Sriparna Basu, Indranil Bose, Laurence Brooks, Dimitrios Buhalis, Lemuria Carter, Soumyadeb Chowdhury, Tom Crick, Scott W. Cunningham, Gareth H. Davies, Robert M. Davison, Rahul Dé, Denis Dennehy, Yanqing Duan, Rameshwar Dubey, Rohita Dwivedi, John S. Edwards, Carlos Flavián, Robin Gauld, Varun Grover, Mei-Chih Hu, Marijn Janssen, Paul Jones, Iris Junglas, Sangeeta Khorana, Sascha Kraus, Kai R. Larsen, Paul Latreille, Sven Laumer, F. Tegwen Malik, Abbas Mardani, Marcello Mariani, Sunil Mithas, Emmanuel Mogaji, Jeretta Horn Nord, Siobhan O'Connor, Fevzi Okumus, Margherita Pagani, Neeraj Pandey, Savvas Papagiannidis, Ilias O. Pappas, Nishith Pathak, Jan Pries-Heje, Ramakrishnan Raman, Nripendra P. Rana, Sven-Volker Rehm, Samuel Ribeiro-Navarrete, Alexander Richter, Frantz Rowe, Suprateek Sarker, Bernd Carsten Stahl, Manoj Kumar Tiwari, Wil van der Aalst, Viswanath Venkatesh, Giampaolo Viglia, Michael Wade, Paul Walton, Jochen Wirtz and Ryan Wright. 2023. "So What If ChatGPT Wrote It? Multidisciplinary Perspectives on Opportunities, Challenges and Implications of Generative Conversational AI for Research, Practice and Policy." *International Journal of Information Management* 71 (0268-4012): 102642.

- Fryer, Luke K., Mary Ainley, Andrew Thompson, Aaron Gibson and Zelinda Sherlock. 2017. "Stimulating and Sustaining Interest in a Language Course: An Experimental Comparison of Chatbot and Human Task Partners." *Computers in Human Behavior* 75: 461–68. <https://doi.org/10.1016/j.chb.2017.05.045>.
- Government of Canada. 2020. *Building on Success: Canada's International Education Strategy (2019–2024)*. Ottawa, ON: Global Affairs Canada. [www.international.gc.ca/education/strategy-2019-2024-strategie.aspx?lang=eng](http://www.international.gc.ca/education/strategy-2019-2024-strategie.aspx?lang=eng).
- Hayes, Niall and Lucas D. Introna. 2005. "Cultural Values, Plagiarism, and Fairness: When Plagiarism Gets in the Way of Learning." *Ethics & Behavior* 15 (3): 213–31. [https://doi.org/10.1207/s15327019eb1503\\_2](https://doi.org/10.1207/s15327019eb1503_2).
- Ibrahim, Karim. 2023. "Using AI-Based Detectors to Control AI-Assisted Plagiarism in ESL Writing: 'The Terminator Versus the Machines.'" *Language Testing in Asia* 13 (1): 46–28. <https://doi.org/10.1186/s40468-023-00260-2>.
- Kasneji, Enkelejda, Kathrin Seßler, Stefan Küchemann, Maria Bannert, Daryna Dementieva, Frank Fischer, Urs Gasser, Georg Groh, Stephan Günemann, Eyke Hüllermeier, Stephan Krusche, Gitta Kutyniok, Tilman Michaeli, Claudia Nerdel, Jürgen Pfeffer, Oleksandra Poquet, Michael Sailer, Albrecht Schmidt, Tina Seidel, Matthias Stadler, Jochen Weller, Jochen Kuhn and Gjergji Kasneji. 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>.
- Khalil, Mohammad and Erkan Er. 2023. "Will ChatGPT Get You Caught? Rethinking of Plagiarism Detection." In *Learning and Collaboration Technologies*, edited by P. Zaphiris and A. Ioannou, vol. 14040, 475–87. Cham, Switzerland: Springer. [https://doi.org/10.1007/978-3-031-34411-4\\_32](https://doi.org/10.1007/978-3-031-34411-4_32).
- Kim, Jihyun, Kelly Merrill Jr., Kun Xu and Stephanie Kelly. 2022. "Perceived credibility of an AI instructor in online education: The role of social presence and voice features." *Computers in Human Behavior* 136: 107383. <https://doi.org/10.1016/j.chb.2022.107383>.
- Kim, Yewon, Mina Lee, Donghwi Kim and Sung-Ju Lee. 2023. "Towards Explainable AI Writing Assistants for Non-Native English Speakers." arxiv: 2304.02625. Cornell University. <https://doi.org/10.48550/arxiv.2304.02625>.
- Kooli, Chokri. 2023. "Chatbots in Education and Research: A Critical Examination of Ethical Implications and Solutions." *Sustainability* 15 (7): 5614. <https://doi.org/10.3390/su15075614>.
- Kuhail, Mohammad Amin, Nazik Alturki, Salwa Alramlawi and Kholood Alhejori. 2023. "Interacting with Educational Chatbots: A Systematic Review." *Education and Information Technologies* 28 (1): 973–1018. <https://doi.org/10.1007/s10639-022-11177-3>.
- Lee, Bongmin. 2022. "The Relationship between Smartphone Overdependence and the Adolescents' Smartphone Use Time during Tasks: Moderating Effects of Purposeful Use for Tasks." *J-Institute* 7 (1): 1–9. <https://doi.org/10.22471/ai.2022.7.1.01>.
- McIlhinney, Molly. 2023. "ChatGPT: Plagiarism Device or Educational Tool?" *University Wire*, February 1.
- Mindzak, Michael and Sarah Elaine Eaton. 2021. "Artificial Intelligence Is Getting Better at Writing, and Universities Should Worry about Plagiarism." *Daily Maverick*, December 7. [www.dailymaverick.co.za/article/2021-12-07-artificial-intelligence-is-getting-better-at-writing-and-universities-should-worry-about-plagiarism/](http://www.dailymaverick.co.za/article/2021-12-07-artificial-intelligence-is-getting-better-at-writing-and-universities-should-worry-about-plagiarism/).
- Ng, Davy Tsz Kit, Jac Ka Lok Leung, Maggie Jiahong Su, Iris Heung Yue Yim, Maggie Shen Qiao and Samuel Kai Wah Chu. 2022. "AI Education and AI Literacy." In *AI Literacy in K-16 Classrooms*, 9–19. Cham, Switzerland: Springer International. [https://doi.org/10.1007/978-3-031-18880-0\\_2](https://doi.org/10.1007/978-3-031-18880-0_2).

- Read, Siew Hean. 2019. *Academic Writing Skills for International Students*. London, UK: Macmillan International/Red Globe Press.
- Stokel-Walker Chris. 2023. "ChatGPT listed as author on research papers: many scientists disapprove." *Nature* 613: 620–21.
- Strasser, Anna and Michael Wilby. 2023. "The AI-Stance: Crossing the Terra Incognita of Human-Machine Interactions?" In *Social Robots in Social Institutions. Proceedings of Robophilosophy '22*, edited by Raul Hakli, Pekka Mäkelä and Johanna Seibt, 286–95. Amsterdam, the Netherlands: IOS Press.
- Yan, Lixiang, Lele Sha, Linxuan Zhao, Yuheng Li, Roberto Martinez-Maldonado, Guanliang Chen, Xinyu Li, Yueqiao Jin and Dragan Gašević. 2023. "Practical and Ethical Challenges of Large Language Models in Education: A Systematic Scoping Review." *British Journal of Educational Technology* 55 (1): 90–112. <https://doi.org/10.1111/bjet.13370>.
- Yeralan, Sencer and Laura Ancona Lee. 2023. "Generative AI: Challenges to higher education." *Sustainable Engineering and Innovation* 5 (2): 107–16. <https://doi.org/10.37868/sei.v5i2.id196>.
- Zane, Nolan and May Yeh. 2002. "The Use of Culturally-Based Variables in Assessment: Studies on Loss of Face." *Asian American Mental Health*: 123–38.
- Zawacki-Richter, Olaf, Victoria I. Marin, Melissa Bond and Franziska Gouverneur. 2019. "Systematic review of research on artificial intelligence applications in higher education – where are the educators?" *International Journal of Educational Technology in Higher Education* 16 (1): 1–27. <https://doi.org/10.1186/s41239-019-0171-0>.
- Zhao, Li, Haiying Mao, Brian J. Compton, Junjie Peng, Genyue Fu, Fang Fang, Gail D. Heyman and Kang Lee. 2022. "Academic Dishonesty and Its Relations to Peer Cheating and Culture: A Meta-Analysis of the Perceived Peer Cheating Effect." *Educational Research Review* 36: 100455. <https://doi.org/10.1016/j.edurev.2022.100455>.
- Zheng, Lianmin, Wei-Lin Chiang, Ying Sheng, Siyuan Zhuang, Zhanghao Wu, Yonghao Zhuang, Zi Lin, Zhuohan Li, Dacheng Li, Eric. P Xing, Hao Zhang, Joseph E. Gonzalez and Ion Stoica. 2023. "Judging LLM-as-a-Judge with MT-Bench and Chatbot Arena." arXiv:2306.05685v3. Cornell University. <https://doi.org/10.48550/arxiv.2306.05685>.