

PRACTICE-BASED ARTICLES

Ethical and Unethical Use of Generative Artificial Intelligence in Higher Education: Opportunities and Challenges for Online Graduate Education

Linda Cummins, PhD, MSW¹, Laurie Bedford, PhD², Dale Crowe, JD, PhD³

¹ Applied Behavioral Analysis, School Psychology, and Educational Counseling, National University, ² Teacher Education, National University, ³ Teacher Education, National University

Keywords: Generative AI, autonomy, human agency, academic integrity, Gen-AI biases, online graduate education, equity, culminating projects, ghost writing
<https://doi.org/10.65201/001c.161741>

Journal of Online Graduate Education

Vol. 9, Issue 1, 2026

The use of generative AI offers diverse benefits and challenges to students, faculty, administrators, and staff in institutions of higher education, with particular challenges for online graduate education programs. Benefits include student access to learning services, adaptive learning platforms for students with disabilities, and the development of scholarly skills and voice. Faculty can benefit from improved productivity, enhanced course content, the creation of complex learning opportunities, and support for student assessment. Administrators and staff can improve routines and advising efficiencies and quickly identify at-risk students. Gen-AI-enabled predictive analytics can enhance and monitor institutional-level projects and support administrative decision-making. Challenges arise from the misuse of Gen-AI writing capabilities, which can compromise the authenticity of graduate students' scholarship if not used ethically, undermine the development of students' autonomy and human agency if not critically applied within human contexts, and perpetuate stereotypes and biases if Gen-AI platforms are not assessed for accuracy. The duality between the benefits and challenges creates a paradox regarding when, how, and if Gen-AI should be used in higher education. Despite the many concerns that Gen-AI raises in higher education, it has become increasingly integrated across all aspects of higher education, especially in the online environment. By situating Gen-AI related challenges within contemporary scholarship, this article may contribute to ongoing debates on how higher education can adapt to technological change while safeguarding the ethics and integrity of culminating online graduate studies, the development of autonomy and human agency in students, and the safe and equitable application of Gen-AI tools in IHE. These issues are particularly salient in online graduate programs.

The use of Generative AI (Gen-AI) offers diverse benefits to stakeholders in online graduate education. For students, this means access to services such as on-demand tutoring and feedback (Fauzi et al., 2023; Labadze et al., 2023). In addition, Gen-AI can support students with disabilities and multilingual learners with adaptive learning platforms and communication aids (Kasneci et al., 2023; Mah & Groß, 2024). Similarly, instructors can use Gen-AI to improve productivity by generating course content and organizing materials,

freeing time to focus on feedback, mentoring, and complex learning activities rather than routine content production (Crompton & Burke, 2023; Mah & Groß, 2024). Benefits for educational support staff include more efficient routine advising and questions (Dawood, 2024; Essel et al., n.d.). Finally, Gen-AI-enabled predictive analytics can be used at an institutional level to identify at-risk students and target outreach and support (Hariyanto et al., 2025).

Along with these benefits of Gen-AI in education are associated challenges that can impact a myriad of educational issues involving teaching, learning, and administration. Unethical use of Gen-AI can undermine academic integrity among students and faculty; Gen-AI course designs without human review and input can remove the human touch in education, limit student-faculty connection, and discourage student engagement. The uncritical use of Gen-AI tools can exacerbate biases and perpetuate stereotypes across student, faculty, and staff groups, and contribute to the digital divide. In addition, AI technologies raise significant concerns about ethics, authorship, originality, and academic integrity. This concern is particularly pronounced when AI use is undisclosed or serves as a substitute for independent scholarly work (Cotton et al., 2023). This duality between the benefits and challenges creates a paradox regarding when, how, and if Gen-AI should be used in higher education, and how it should be monitored if institutions of higher education (IHE) include it in their repertoire of learning tools.

Despite the many concerns that Gen-AI raises in higher education, it has become increasingly integrated across all aspects of the sector, especially in the online environment. By situating Gen-AI related challenges within contemporary scholarship, this article may contribute to ongoing debates on how higher education can responsibly adapt to technological change while safeguarding the ethics and integrity of culminating online graduate studies (Dawson et al., 2024; Harper et al., 2019), the development of autonomy and human agency in students, and the equitable and fair application of Gen-AI tools in IHE. These issues are particularly salient in online graduate programs.

Ethical and Unethical AI Use in Online Graduate Culminating Projects

Gen-AI is a flexible instructional tool at all academic levels. In online graduate education, it has been instrumental in restructuring culminating projects (e.g., capstones, theses, and dissertations). Tools such as ChatGPT, Perplexity, Co-pilot, and others provide opportunities to improve clarity, organization, and efficiency in student work (Kasneci et al., 2023). Yet, the use of AI may be problematic in expressing the writer's own scholarly voice (Wang et al., 2024). Further, the misuse of AI technologies and ghostwriting services compromises the authenticity of graduate students' scholarship (Ali & Alhassan, 2021; Lancaster, 2020). To address these challenges, this section provides insights into ethical Gen-AI use and the use of ghostwriting assisted by Gen-AI for institutions of higher education (IHE) that offer online and ground-based graduate programs requiring culminating scholarly projects, including doctoral dissertations, master's theses, and capstone products.

In a review of the literature, very little has been written in a substantive way pertaining to the use and misuse of AI for culminating projects. Articles that have been published are centered on postgraduate studies involving general course graduate classes. For example, in an exploratory case study conducted in Vietnam, the authors used 10 reflective essays that were an assignment in a postgraduate ethics course. The purpose of the study was to explore how students perceived academic integrity in relation to AI use. Results from the study identified twelve distinct behaviors, delegation of academic tasks to AI tools, lack of transparency and uncritical use of AI-generated content, and AI use in violation of ethical and instructional guidelines (Nguyen et al., 2025).

In regard to terminal courses, the literature primarily focused on doctoral dissertations and theses. There appears to be a gap in the use of AI for other types of culminating projects, such as capstone projects, master's theses, etc. In the realm of doctoral dissertations and theses research is limited and still evolving. In an article by Kumar and Gunn (2025), the focus was centered on the use of Gen-AI in the graduate studies literature review process. A qualitative study consisting of 26 doctoral students who attended a seminar on preparing a literature review. Perceived benefits to doctoral students included facilitating discovery and connections, increased efficiency, and the process of using Gen-AI as less intimidating. Limitations included low quality of literature outputs, summaries from Gen-AI were not always accurate, and usability and features, in particular, filtering with Gen-AI could be problematic and challenging. Lin and Wang (2025) conducted a mixed methods study in Taiwan consisting of 422 graduate students who were in the process of writing their thesis. Results of the study disclosed that graduate students' use of Gen-AI tended to adhere to familiar writing methods; however, time pressure led to the likelihood of AI adoption. The authors also noted that self-efficacy in the use of Gen-AI in thesis writing can be either a driving force or a constraint.

In summation, the current literature provides some insights as to the use of Gen-AI in graduate studies; however, there still exists a gap in the ethics of Gen-AI use in the writing of culminating projects at the graduate level. Specific research is needed across methodologies, including qualitative studies, quantitative studies, and mixed methods. Other forms of non-traditional research, such as clearly written institutional policies for the use of Gen-AI, and the effectiveness of such policies in providing structure, support, and guidance in the ethical use of Gen-AI, are also warranted.

Higher education institutions can mitigate unethical Gen-AI use in graduate programs by outlining the ethical boundaries of Gen-AI use in the writing of culminating scholarly products, examining ghostwriting and contract cheating in the Gen-AI era through an analysis of student motivations and pressures in online dissertation environments, and presenting recommendations for policy, teaching, and practice. The ethical range of using Gen-AI in scholarly work extends from augmentative use,

such as editing, idea generation, and citation support, to substitutive misuse, including outsourcing authorship to Gen-AI, either alone or in conjunction with Gen-AI hybrid ghostwriting or traditional human-authored ghostwriting (Watson et al., 2025).

Ghostwriting and Contract Cheating in the Gen-AI Era

Ghostwriting and contract cheating in the production of culminating projects (especially doctoral dissertations) have long been recognized as persistent threats to academic integrity (Ali & Alhassan, 2021). Traditionally, ghostwriting has involved students outsourcing chapters or entire manuscripts to human writers, often through commercial essay mills. In the AI era, however, ghostwriting services are increasingly integrating large language models (LLM) to produce rapid, customized outputs that mimic student writing styles, making detection more challenging (Lancaster, 2020). Ghostwriting has shifted from bespoke, human-authored texts to hybrid models where AI generates drafts that human contractors lightly edit. This evolution reduces costs for providers and expands the market to students who might previously have been deterred by financial barriers (Mathrani et al., 2022). In a quantitative study with 36 participants, Draxler et al. (2024) determined who would be comfortable signing an AI-generated postcard message, indicating that the message had been written by them rather than by Gen-AI. Interestingly, participants viewed Gen-AI as a tool that acted like a ghostwriter and had no ethical concerns in signing the postcard. Additionally, the participants attributed ownership to themselves when the ghostwriter was presented as AI rather than a human. It would be interesting to conduct a similar study with culminating projects students.

Contract cheating refers to students commissioning third parties to complete academic work, often under the guise of *academic support*. Online environments amplify this risk because of the anonymity and accessibility of digital platforms. Generative AI tools now allow contract cheating providers to scale operations, offering *instant theses, dissertations, or even capstone projects* or *AI-enhanced ghostwriting* packages that promise originality and plagiarism-free guarantees (Dawson et al., 2024). Detection challenges are currently complex, and there are some problems with accuracy. Artificial intelligence-driven ghostwriting complicates detection because outputs are less likely to trigger plagiarism software. Unlike traditional ghostwriting, which often uses recycled content, AI-generated text is novel and context-specific, which makes detection difficult. Emerging AI-detection tools attempt to identify linguistic patterns, but they remain prone to false positives and negatives (Khalil & Er, 2023).

Culminating Projects: Students' and Candidates' Motivations and Pressures in Online Graduate Environments

Culminating projects, such as capstones, theses, and dissertations, represent the conclusion of students' graduate programs and serve as premier assessments that can significantly impact both academic and professional

futures. The pressure of this expectation can lead students to seek other avenues for meeting academic requirements when they feel overwhelmed. Research indicates that students under significant academic pressure are more likely to engage in the unethical use of Gen-AI, including hybrid AI ghostwriting and contract cheating (Giray et al., 2026; Lui et al., 2026; Nguyen et al., 2025). Artificial intelligence ghostwriting and contract cheating may occur when a student or candidate perceives limited support from their committee, advisor(s)/supervisor(s), dissertation chair(s), and/or their institution(s) (Harper et al., 2019). Online graduate students, who may lack face-to-face mentorship, often experience heightened anxiety and isolation, increasing susceptibility to the use of Gen-AI, and may go so far as to use ghostwriting services (Ali & Alhassan, 2021). International students enrolled in U.S. online programs frequently face language barriers that complicate advanced graduate academic writing. Gen-AI tools offer immediate linguistic support, but when combined with ghostwriting services, can become a crutch that replaces authentic learning (Kasneci et al., 2023).

Navigating the Intersections of Artificial Intelligence, Autonomy and Human Agency, and Educational Justice in Online Graduate Education

While learning environments, including online graduate education courses, are quickly evolving to integrate Gen-AI, the ethical implications are evolving just as quickly. Generative AI offers innovative opportunities to personalize educational experiences for students while simultaneously increasing efficiency and access to support services such as tutoring and feedback. However, the availability and ease of use of Gen-AI also create tensions around human autonomy, learner and teacher agency, and educational justice.

Concerns over access, voice, autonomy, and agency are deeply connected to how Gen-AI is integrated into online graduate education. While Gen-AI can be leveraged to provide enhanced learning opportunities, it may also compromise learner autonomy while threatening teacher voice and professional agency. In turn, these threats create risks to overall educational justice, which ensures that every learner, at every level, has fair, meaningful, unbiased, and empowering opportunities. Educational institutions have a responsibility to intentionally integrate Gen-AI into learning environments and workflows while safeguarding equitable participation in the learning process.

Developing Autonomy and Human Agency in the Educational Context of Gen-AI

An important aspect of the current debate around Gen-AI in online learning is how autonomy and agency for learners and educators can be preserved as more instructional roles are subsumed by Gen-AI. A primary concern in higher education is the extent to which students can be autonomous and capitalize on their agency in developing problem-solving, critical thinking, and interpersonal skills in their coursework as they navigate

the benefits of Gen-AI (Nopas, 2025). While scholarship suggests that Gen-AI can support learners' autonomy, according to Mncube et al. (2026), this can be achieved only when students are empowered to identify goals and learning strategies that best meet their needs.

Autonomy describes how a learner self-regulates and assumes responsibility for their learning. Being an autonomous learner requires students to be purposeful in their academic work decision-making. An autonomous learner will use that decision-making authority to determine their own path and avoid automated recommendations – whether made by a human or thought Gen-AI (Alm, 2024). Autonomy is linked to the ability to critically evaluate one's options and choose the best path forward. This is an important skill to develop in graduate degree programs and is critical to career success following graduate school. When used effectively for online graduate education, Gen-AI-mediated instruction can encourage active engagement between faculty and students and cultivate decision-making skills (Roe & Perkins, 2024). For example, Gen-AI can support faculty in creating customized learning for students and create more engaging feedback. In addition, faculty can use AI to support opportunities for students to utilize self-selected learning paths. These uses of Gen-AI reflect a learning environment that embraces autonomy and can lead to positive learning experiences for faculty and students (Bhatia et al., 2024).

Institutions of higher education can use Gen-AI for a number of purposes to create agency for both faculty and students (Adhikari & Pandey, 2025). Agency, according to Klemencic (2015), is the extent to which students can capitalize on their self-directed, reflective actions in their academic pursuits. Within the context of Gen-AI, for example, course content can enhance productivity, leaving more time for faculty-student interaction. Simultaneously, as students become more comfortable with and accepting of AI-generated information, they can become more adept at scaffolding complex tasks, organizing ideas, clarifying writing, and better articulating difficult concepts without external support. Similarly, AI-mediated learning, when used authentically, can provide an avenue for students to engage more fully with the content as they evaluate AI output for accuracy and relevancy and determine how to best preserve their own voice (Alm, 2024). This can lead to greater confidence in writing among students, which, in turn, can result in a greater sense of autonomy (Pawar & Rai, 2023).

Educational Justice and Gen-AI

Grounded in social justice and human rights frameworks, educational justice means that educators support all students. This includes instruction that meets students' individual needs, respects their unique identity, and empowers them to grow as individuals (Levinson et al., 2022; Warren, 2014). Historically, education has followed a one-size-fits-all approach. However, within the context of educational justice, this approach has perpetuated systemic inequalities. While teachers may attempt to mitigate this through differentiation, additional demands can lead to teacher burnout and attrition

(Pozas et al., 2023). As an alternative, teachers can leverage the power of Gen-AI to prioritize student autonomy through personalized learning and the design of alternative learning pathways that meet individual student needs (Bhatia et al., 2024).

Fairness in the use of Gen-AI cannot be reduced to access alone. Rather, Gen-AI integration needs to support equity and belonging. It should not be seen as a tool to replace ethically responsible human judgment in educational decision-making (Levinson et al., 2022; Warren, 2014; Wolf, 2025). Ensuring educational justice requires opportunities for social transformation among students, which cannot be achieved through individual academic advancement alone. It is a challenge for IHE to promote agency and autonomy in students. This happens when students are prepared to engage in critical thinking to address injustices in the world. When educators design AI-supported activities that focus on educational justice through agency and autonomy building in both faculty and students, they can promote dialogue that examines power structures. Used in this way, Gen-AI education becomes a mechanism for cultivating critical consciousness (Taylor, 2024).

Gen-AI Challenges in Higher Education

An educational dilemma challenging how IHE promotes the use of Gen-AI for educational justice is the extent to which reliance on AI-generated content is prudent and acceptable. Whether at the hands of educators or students, the use of Gen-AI content without human review and revision can create a learning environment in which critical thinking and original work are no longer central to the learning process (Tripathi et al., 2025). For example, Abbas et al. (2024) found that the frequent use of Gen-AI writing tools is associated with greater procrastination, reduced retention of course material, and lower academic performance compared to peers who complete their own writing (Abbas et al., 2024). Beyond immediate performance issues, overreliance on Gen-AI prevents students from engaging in the prerequisite cognitive processes of writing, such as reasoning, synthesizing evidence, and revising. Void of these cognitive-enhancing skills, students' long-term development as scholarly thinkers is ultimately weakened (Khalifa & Albadawy, 2024).

An additional challenge posed by Gen-AI is the blurring of the lines between authorship and plagiarism. This means that the central question is not whether students use Gen-AI, but how they use it, and the ethical issues that it invokes (Hutson, 2024; Khalifa & Albadawy, 2024; Wang et al., 2024). Students who rely on Gen-AI for written work risk losing their ability to act as original producers of knowledge, thereby compromising their capacity to envision and articulate original themes and theses. This can be especially risky for novice scholars who have not had opportunities to develop these skills. Without the important skills to support their engagement in the academy, the ultimate implication may be that they are unable to fully engage, thereby weakening their agency within the academic community (Hutson, 2024).

Educators who spend less time creating content can devote more time to mentoring students. At the same time, the lack of human authorship may diminish the educator's intellectual footprint in the course. This is especially true in online graduate education, where the content is typically static, and students have limited exposure to it through the instructor. Generative AI content is often vague, generalized, and emotionless. As AI-generated content replaces human-generated content, nuance, creativity, and diverse voices can also be lost (Al-Zahrani, 2024). In addition, as educational tasks are increasingly subsumed by Gen-AI as a cost-saving measure, academic labor and contributions by educators can become devalued. For students, these cost-saving measures may impact content, assessment methods, or grading, resulting in a less authentic experience (Cardiba et al., 2023; Tripathi et al., 2025). For the individual instructor, this may result in personal professional conflicts, where they must decide whether to use AI-generated content to support their teaching or when to draw on their granted autonomy and agency to avoid compromising rigor or authenticity.

According to Tripathi et al. (2025), the use of Gen-AI as an educational tool has the potential to support the educator or serve as a substitute for them, which can be a source of diminished agency for educators. The educator, for example, may be discouraged (either personally or through policy) from assigning creative or qualitative work due to limitations of a Gen-AI grading tools. As IHE adopt Gen-AI to create learning materials and assessments, educators may be reduced to performing administrative tasks. This situation limits the educator's opportunities to engage with students by limiting opportunities for educators to incorporate their own life experiences or curated knowledge into the course. Substituting Gen-AI for human-generated content can also be considered an assault on educators' academic freedom (Johnson et al., 2024).

The teaching challenges created by the use of Gen-AI in graduate education require a shift in educators' skills and academic engagement (Bakridi, 2025). For example, educators who are less able to create course content, select learning materials, and engage with students may find that their teaching is less effective. To address these barriers, educators will need to reimagine instructional activities, including assessments that prioritize critical thinking and promote equitable access. At the same time, students are likely to notice a lack of human connection in their learning experiences, especially in the online learning environment (Laird et al., 2025). The result may be decreased student motivation, engagement, and trusting relationships (Pikhart & Habeb Al-Obaydi, 2025). Ultimately, the application of Gen-AI on graduate education has the potential to perpetuate processes that undermine the goals of higher education, particularly in graduate programs where critical thinking, originality, and mentorship are essential.

As AI is integrated into the learning process, concerns about surveillance issues also arise (Cardiba et al., 2023). A culture of constant monitoring and diminished trust can be fostered through AI-powered exam proctoring,

learning analytics platforms, and behavior monitoring systems. Automated surveillance of this nature can foster an educational culture rooted in control rather than one that promotes feelings of autonomy and agency. In addition, surveillance tools often disproportionately negatively impact students from marginalized groups, which can amplify existing inequalities. Marginalized students have historically been exposed to greater scrutiny, less trust, and more control. Surveillance of this nature can also be viewed as an automated way to discipline, further perpetuating systemic bias. As such, a sense of belonging may be even more elusive.

Generative AI Equity, Bias, and Fairness

Educators and the institutions of higher learning they populate are rapidly becoming aware of the transformative opportunities offered by Gen-AI technologies, such as collaborative learning, active development of competencies, technology agility, and the democratization of access to information (Al-Zahrani, 2024; Cano et al., 2023). Gen-AI has helped expand online graduate higher education by making it more accessible, effective, engaging, collaborative, self-paced, and adaptable to diverse academic settings and populations (Rangel-de Lázaro & Duarte, 2023). With many benefits of Gen-AI there is wide recognition of the formidable challenges that accompany them (Al-Zahrani, 2024; Cano et al., 2023; Fowler, 2023; Rangel-de Lázaro & Duarte, 2023). Gen-AI researchers have shown that Gen-AI technologies can perpetuate gender and racial biases present in human society, as well as cultural, ideological, and linguistic biases (Al-Zahrani, 2024; Fowler, 2023; Heikkilä, 2023; Jääskeläinen et al., 2025; Nicoletti & Bass, 2023), that perpetuate traditional stereotypes and inequities among women, other non-male gendered people, immigrants, and People of Color, and people of diverse abilities (Fowler, 2023; Jääskeläinen et al., 2025; Nicoletti & Bass, 2023). More significantly, Mirsch et al. (2025) argued that unanticipated negative impacts of Gen-AI may be more pronounced where race, gender, disability, and language backgrounds intersect, rather than each demographic characteristic being a parallel issue. These concerns elevate Al-Zahrani's (2024) caution that IHE be aware of and address the unintentional "shadow" of Gen-AI and the consequences it can have on "cognitive development, social interactions, and learning autonomy" (sec. 1, para. 4). Research suggests that cognitive effort supports cognitive growth while cognitive laziness or cognitive offloading which can occur with an overreliance on Gen-AI tools, aligns with a reduction in critical-thinking skills and cognitive decline (George et al., 2024; Gerlick, 2025). Gerlick (2025) in his mixed methods study of 666 diverse individuals found a significant negative correlation between frequent AI tool usage and critical thinking abilities.

Generative AI Biases

Generative-AI biases and inequities in online graduate education can be traced to biased algorithms that perpetuate disparities and unequal access to technologies that support AI-driven platforms (Al-Zahrani, 2024; Carter

et al., 2020; Feng et al., 2023). Biased algorithms result from the sources and databases AI systems are trained on. Generative-AI LLMs are developed from a wide range of sources such as news, discussion forums, databases, online encyclopedias, books, and other readily accessible sources that contain opinions and perspectives rather than empirically supported facts, making AI systems inherently biased (Feng et al., 2023; Jääskeläinen et al., 2025). In addition, developers' assumptions or unconscious biases can unintentionally be integrated into algorithms. The heedless use of Gen-AI in course designs, course assignments, and research introduces significant risks to the overall quality of learning experiences in the online environment. This brings to bear the enormity of responsibility of faculty, students, and instructional designers in online graduate education for critically assessing, verifying, and correcting information generated by Gen-AI systems in order to safeguard the accurate sharing of information and the reduction of harm through the perpetuation of stereotypes in the educational process (Jääskeläinen et al., 2025; Kumar et al., 2024).

Artificial Intelligence-generated biases can be significantly worse than those present in US society. For example, when the AI system, Stable Diffusion, was asked to depict images of 'judges,' only 3% of the images were women (Nicoletti & Bass, 2023), yet women make up 33% of US judges (American Bar Association, 2024). Similarly, Gen-AI can exacerbate racial biases in relation to crime. In response to the prompt "inmate," more than 80% of the images generated were People of Color (Nicoletti & Bass, 2023), who make up only 42.9% of the US prison population (Federal Bureau of Prisons, 2025). Gender and racial bias in Gen-AI outputs have the potential to cause social, economic, and political harm to marginalized online graduate students (Nicoletti & Bass, 2023). The use of Gen-AI in higher education can inadvertently exacerbate the negative impact of inherent biases if IHE are not cautious in educating faculty, staff, and students on how to identify biases and select Gen-AI tools that provide credible, verifiable results.

In education, Gen-AI biases can have devastating outcomes for students, especially students in the online learning environment, where gender and race may not be readily apparent and knowledge of students' learning experiences and perspectives may be less knowable than in the traditional classroom, where faculty have opportunities to observe student reactions and interactions, form closer bonds with students, and to facilitate engaging yet telling discussions. Biased AI outputs have the potential to silence marginalized students when experiencing biased AI-generated information as microaggressions that can undermine their gender, racial, and ethnic identities. Remaining silent in an online environment may be easier to do when intimidated by biased Gen-AI information. This is especially true for online students working in the asynchronous mode, where open discussions are limited, and the feeling of a safe space is minimized without a physically present ally, such as the course professor. For example, Liang et al. (2023)

found that Gen-AI GPT detectors frequently flagged writings by non-native English speakers as AI-generated, bringing into question their academic integrity and potential harmful consequences.

Limitations in expression and thus learning go beyond race and gender and encompass all areas where bias is inherent in human society. For example, research by Feng et al. (2023) found that LLMs used in Gen-AI platforms exhibit political biases that perpetuate the current political polarization prevalent in society. Similarly, Jääskeläinen et al.'s (2025) Gen-AI imagery research revealed that Stable Diffusion images favored binary gender representations while absencing non-binary gender representations, prioritized white masculine representations over other social groups, and associated lighter skin tones with wealth and social status. Poverty and criminality were associated with darker skin tones, and ableist imagery dominated search results. Other research indicated that some Gen-AI platforms express left-wing libertarian preferences (OpenAI's ChatGPT and GPT-4) while other platforms were assessed as right-wing authoritarian in their responses to prompts (Meta's LLaMA) (Heikkilä, 2023). Selecting AI platforms that are accurate and reflect the actual human experience for all people is essential to promoting the worth and value of all students and to gaining the most benefits from Gen-AI learning tools.

Generative AI and the Digital Divide

Generative-AI can amplify technology inequities and add to the already present digital divide between White-privileged and marginalized students. Low-income students are less likely to have access to high-speed internet and current technology devices and software, which can widen the digital gap and limit student access to AI-driven supports (Dolcini et al., 2021). Colleges and universities with limited resources may not be able to offer their students opportunities to use AI-driven learning tools. This may be especially hindering for students attending online classes and programs. Unequal access to AI technologies can negatively affect education quality and academic outcomes for marginalized students (Al-Zahrani, 2024; Carter et al., 2020).

As AI-driven resources become deeply interwoven into all aspects of higher education, the integrity of educational systems is dependent on universities' willingness and ability to recognize and address biases inherent in Gen-AI applications and unequal access to the benefits of Gen-AI tools for all students (Al-Zahrani, 2024; Fowler, 2023). Universities are morally bound to select AI tools with integrity and use them to narrow gender and race disparities and enhance access to higher education for everyone who desires it. It is imperative that IHE become intentional about which and how Gen-AI systems are adopted, applied, and navigated across the university by faculty, staff, administrators, and students (Al-Zahrani, 2024; Shiller International University, 2025), while educating new generations on the responsible use of Gen-AI and other technologies in the learning process (Cano et al., 2023). These issues stress the importance of ethical Gen-AI integration to ensure integrity in the educational process (Al-Zahrani, 2024). Some universities

have implemented auditing systems to identify and address biases in accuracy, gender, race, politics, and other areas within the Gen-AI systems they adopt. Institutional policies should repudiate the inequitable use of AI systems that exclude, degrade, or make less than, any human group.

Recommendations for Policy, Teaching, and Practice

The rapidly evolving presence of Gen-AI in higher education behooves IHE to recognize and address the Gen-AI academic challenges with research, policies, teaching practices, and professional development that uphold the values of their institutions while maximizing the benefits of Gen-AI for students, staff, faculty, and administrators. Addressing academic integrity boundaries through policy and teaching may mitigate potential misconduct among online graduate students. Clear guidelines may help differentiate between acceptable assistance and unethical substitution in the use of Gen-AI, reducing the likelihood of inadvertent academic integrity violations (Cotton et al., 2023). Policies should emphasize transparency in the disclosure of Gen-AI use, ensuring that students understand the importance of acknowledging technological support (American Psychological Association, 2023). Specifically, programs should require students to identify whether Gen-AI was used for brainstorming, outlining, editing, or language support so that faculty can distinguish augmentative assistance from substitution of authorship (American Psychological Association, 2023; Cotton et al., 2023). In addition, faculty training (particularly for master's and dissertation committee members, as well as capstone advisors/supervisors) and curriculum design can reinforce these boundaries by embedding discussions of Gen-AI ethics into graduate online courses (Kasneci et al., 2023). Teaching in online graduate education should incorporate Gen-AI use that enhances cognitive effort while minimizing cognitive offloading, and emphasize fact-checking, source verification, bias recognition, and judgment about when not to use Gen-AI with the goal of strengthening student autonomy (Alm, 2024; George et al., 2024; Gerlick, 2025; Kasneci et al., 2023; Kumar et al., 2024). Faculty should also incorporate discussions of Gen-AI ethics into research methods courses, ensuring that students understand both the opportunities and risks (Cotton et al., 2023). They could do so with strategies that explicitly teach the difference between language support and replacement of authorial thinking, especially in theses, dissertations, and capstones where scholarly identity is central (Hutson, 2024; Khalifa & Albadawy, 2024; Wang et al., 2024). However, unclear expectations around the use of Gen-AI can create academic stress for students who are vulnerable to unethical Gen-AI use. Therefore, online graduate program administration should also strengthen advising, chair support, writing coaching, and community-building structures for holistic support (Giray et al., 2026; Harper et al., 2019; Kasneci et al., 2023; Nguyen et al., 2025).

Scaffolded assessments that emphasize process — such as annotated bibliographies, research logs, and iterative drafts — can reduce reliance on ghostwriting by foregrounding authentic student engagement (Mathrani et

al., 2022). Further, institutional decision-making processes for endorsing and supporting particular Gen-AI platforms are important for ensuring accuracy, equal access across student bodies, and minimizing biases in Gen-AI outputs.

Conclusions

The rise of generative AI has reshaped the ethical landscape across all domains of education, but none more so than online graduate education, where face-to-face time with human instructors is limited or absent. Students in online graduate environments face unique pressures. While Gen-AI offers legitimate support for learning, its misuse through AI hybrid ghostwriting and contract cheating undermines academic integrity and devalues scholarly credentials and the educational community as a whole. Graduate students are motivated to use unethical means by a complex interplay of academic pressure, language barriers, time poverty, competitive anxieties, and fear of failure (Harper et al., 2019). Higher education institutions must respond with integrated strategies that combine clear policies, adaptive teaching, and balanced practices. empowering students to engage responsibly with Gen-AI (Dawson et al., 2024) to maximize the benefits of authentic scholarly development, accuracy of writing content, and the development of their own human agency.

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Disclosures

Generative AI was used in the construction of this article in the following ways: (1) to generate a list of issues higher education faces in the use of Gen-AI. From this list, three topics were chosen to be included in the article; (2) to generate lists of references on selected topics. These lists provided a starting point for identifying and selecting scholarly literature to support the article; (3) to brainstorm alternative perspectives on the selected topics.

Submitted: March 06, 2026 EDT. Accepted: April 21, 2026 EDT. Published: June 03, 2026 EDT.

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