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Integrating Generative Artificial Intelligence into University Curricula: Student Insights

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Abstract

As generative artificial intelligence (GenAI) is increasingly adopted in professional settings, universities face growing pressure to prepare students for a GenAI-integrated future. This study explores undergraduate business students' perceptions of GenAI and its role in academic learning and career readiness, drawing on qualitative responses from 166 students enrolled in a capstone unit. Thematic analysis revealed strong support for integrating GenAI knowledge and application into higher education curricula, with students identifying three priority areas for development: (1) understanding and optimising GenAI functionality; (2) exploring GenAI applications across contexts; (3) navigating ethical and legal dimensions of GenAI. These findings highlight the value of student involvement in co-designing future-ready curricula and contribute to broader conversations on digital capability and employability.

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Practitioner Notes

1. Integrate GenAI literacy into curricula to prepare students with essential skills for academic and professional success.
2. Design scaffolded learning experiences that develop students' ability to prompt effectively, evaluate GenAI outputs critically, and understand how GenAI systems function.
3. Embed ethical and legal considerations of GenAI use to promote responsible and informed student engagement.
4. Involve students in co-designing learning experiences of GenAI to align with their evolving needs and workplace expectations.
5. Provide structured, discipline-specific guidance to help students bridge the gap between their informal, personal use of GenAI and its formal, academic, and professional applications.

Keywords

Higher education, generative artificial intelligence, student perceptions, business education, artificial intelligence literacy.

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Introduction

Technological advancements have continuously reshaped higher education (Qolamani & Mohammed, 2023) and necessitated fundamental organisational and pedagogical transformations within universities (Rahmadi, 2024; Akbar, 2016). Generative artificial intelligence (GenAI) represents a notable technological advancement, offering opportunities to refine educational paradigms and enrich assessment methods. Unlike earlier waves of technological change, the acceleration and commercialisation of GenAI through large educational technology companies has intensified debates about educational integrity, ownership of learning, and the purpose of higher education itself (Hughes et al., 2025; Yusuf et al., 2024).

Defined by Lim et al. (2023) as “a technology that leverages deep learning models to generate human-like content in response to complex and varied prompts” (p.2), GenAI has prompted extensive scholarly debate. Unlike previous technological integrations, where higher education institutions gradually adapted existing teaching methods, GenAI presents a more radical transformation. Views on GenAI’s potential vary, with some academics seeing it as a threat to academic originality (Luo, 2024), therefore advocating for banning GenAI (de Fine Licht, 2024). Others regard it as an opportunity to foster creativity and learner autonomy (Qian, 2025) and to enhance education through innovative teaching and learning practices (Çelik & Baturay, 2024), thereby pushing for comprehensive integration and exploration of its educational potential (Shailendra et al., 2024). The polarised responses from educators reflect the technology's complex implications. Amid this institutional and pedagogical uncertainty, the perspectives of students, the very individuals most directly affected by the integration of GenAI remain underrepresented. Elevating student voice in this conversation is a matter of inclusion and a means of ensuring that curricula redesign is guided by educational values rather than by market or technological imperatives.

We take the view that preparing business students for a GenAI-rich environment requires a balanced orientation. One-part centres on AI literacy, helping students make sense of what AI is, how it operates in real-world settings, and the broader societal issues it raises, such as bias and privacy (Chiu et al., 2024). The other part involves moving beyond understanding to recognising the value of building students’ confidence and capability in using and interacting with GenAI tools in practical contexts (Chiu et al., 2024; Zhou et al., 2025). Despite increasing recognition that AI literacy is essential for graduate employability in business-related fields (Long & Magerko, 2020), there is limited research examining how students in higher education perceive the role of GenAI in shaping their learning experiences and future career trajectories within the business sector. To address this gap, we conducted a qualitative survey of business students at an Australian regional university, guided by three key research questions:

(1) How do undergraduate business students perceive the value of understanding how to effectively use generative AI tools in their university studies?
(2) How do undergraduate business students perceive the value of developing generative AI literacy for their future professional careers? and
(3) What further knowledge or skills related to generative AI use do undergraduate business students identify as important for their academic and professional development?

This paper presents the study's thematic findings, highlighting students’ insights into the benefits, concerns, and desired approaches for integrating GenAI into curricula. By foregrounding student

voice, the study contributes to an educational discourse that prioritises agency, critical engagement, and ethical alignment in the use of GenAI technologies. We begin with a review of relevant literature on digital literacy and GenAI, and GenAI in higher education, followed by an overview of our methodology, key findings, and a discussion of the implications for curricula design. The paper concludes with practical recommendations and directions for future research.

Literature

Digital literacy and generative artificial intelligence

In the contemporary higher education landscape, digital literacy has long been recognised as a critical capability for students navigating an increasingly technology-mediated learning environment and preparing them for their future workplaces. Although the term computer literacy emerged in the 1980s (Buckingham, 2006), digital literacy was popularised by Paul Gilster in 1997, when the rise of the World Wide Web created a need for new skills to navigate and use information from diverse digital sources. Recognising that digital literacy is more than simply technical proficiency with digital tools, Eshet-Alkalai (2004) define digital literacy as a multidimensional construct, encompassing "the variety of technical, cognitive, and sociological skills to perform tasks and solve problems in digital environments" (p. 93). This conceptualisation frames the study by acknowledging that students' perceptions of generative AI literacy may involve not only technical competence but also cognitive strategies and sociocultural considerations. It also reinforces the importance of student voice in shaping approaches to GenAI integration, as students are best positioned to articulate which skills and understandings matter most for their academic success and future professional development.

GenAI, which encompasses technologies like large language models, is not a single tool but a foundational innovation driving the creation of transformative educational applications. This prompts questions about what constitutes GenAI literacy, and how students themselves perceive its value and want to engage with it in their learning. While the underpinning large language models (LLMs) of GenAI have been in development since early statistical language models and evolved through milestones such as IBM's Watson and the introduction of Transformer architectures in 2017, GenAI's accessibility and user-facing applications introduce unique characteristics that require specialised knowledge and skill development (Wang et al., 2024). Notably, in their literature review, Annapureddy et al. (2024) found an "absence of literature defining the concept of generative AI literacy…[and] existing frameworks on AI literacy tend to be quite generic, failing to address the specificities of generative AI tools" (p. 6). Citing Koh and Doroudi (2023), O'Dea and colleagues (2024) suggest a call for reconceptualising AI literacy, considering the emergence of GenAI. Yet few of these frameworks incorporate student perspectives or provide practical insight into how learners wish GenAI to be integrated into their courses, including its role in promoting awareness, understanding, and appropriate usage within units of study.

Several studies have proposed frameworks specifying the knowledge and skills required to support AI literacy development. Common across many AI literacy frameworks are the concepts of understanding how the technology works, applying the technology in productive ways, and in some frameworks, consideration of ethics and evaluation. Long and Magerko's (2020) work developed a conceptual framework consisting of five themes: What is AI; What can AI do; How

does AI work; How should AI be used; and how do people perceive AI. Ng et al. (2021) published an exploratory review of how AI literacy was conceptualised across the emerging literature at the time and identified four key aspects (know and understand; use and apply; evaluate and create; and ethical issues) for fostering AI literacy. In 2023, Ng et al.'s work acknowledged the impact that AI-driven technologies are having on teaching and learning, and offered a conceptual framework based on the European Commission's EduCompEdu framework (European Commission, Joint Research Centre 2017) and the P21 Framework for 21st Century Learning (Partnership for 21st Century Learning, 2015) for building teachers' AI competency. The framework by Ng and colleagues was subsequently modified by O'Dea and colleagues in 2024 in their study of factors affecting generative AI literacy across different cultural contexts, specifically investigating student experiences in the UK and Hong Kong, where they acknowledged socio-ecological domains at multiple levels that impacted GenAI literacy domains of knowledge, application, evaluation, and ethics.

While recent studies have begun to define GenAI-specific competencies (Annapureddy et al., 2024). Less attention has been paid to how students evaluate the usefulness of these competencies or express their needs in learning environments. Annapureddy and colleagues (2024) identified "the need for a more definite set of skills, abilities, and knowledge, specific to the scope and applications of generative AI" (p. 2) and therefore proposed a 12-competency model to specifically delineate the concept of GenAI literacy. These competencies include key GenAI-related characteristics, such as prompt engineering, and detecting AI generated content. Zhou and Schofield (2024) developed a conceptual framework specifically tailored to higher education settings, and although they described their framework as developing 'AI literacy', they provided GenAI specific teaching and learning activities as well as suggested GenAI tools to support educators with putting the framework into practice. Similarly, Hillier (2023) proposed an AI literacy framework with a user perspective that included five GenAI-framed elements: ethical use of AI tools; knowledge of AI affordances; working effectively with AI tools; evaluation of AI output; use and integration into practice.

Generative artificial intelligence in higher education

A growing body of literature on GenAI in higher education paints a multifaceted picture, including a strong focus on students' awareness, usage patterns, and concerns, which is crucial for informing curricula design. One of the first large-scale Australian-based studies (Kelly et al., 2023) examines student awareness, experience, and confidence in using GenAI across various disciplines, including nursing and midwifery, medical and health sciences, business and law, education, arts and humanities, and engineering and science. A key finding of the study was that students had relatively low knowledge, experience, and confidence in using GenAI, with the depth of understanding varying across disciplines. Science and engineering were the disciplines found to have moderate to high use of GenAI tools. However, as noted by the authors the timing of the survey may have skewed the results. Conducted in March 2023, the survey took place when GenAI tools had only recently become more readily available (late 2022 and early 2023). Therefore, this could explain why so many students were unfamiliar with GenAI at the time. Given how rapidly GenAI is being integrated into our way of life, this highlights the importance of considering the context and timing of the survey when examining students' perceptions of these tools.

A study by Chan and Hu (2023) examined students' perceptions of GenAI and identified both motivations and challenges. Studies like these begin to highlight what students value in GenAI tools, and where they seek more structure or support, insights that are critical for informing effective curricular integration. The survey, conducted among students from various disciplines in Hong Kong, revealed generally positive attitudes towards GenAI, noting its ability to assist in learning, writing and brainstorming, research and analysis, and visual and audio support. However, students also expressed concerns about GenAI's impact on university education, including issues of accuracy, transparency, privacy, ethics, and potential negative effects on critical thinking, creativity, and personal development. Additionally, students were worried about career prospects and human values, advocating for clear guidelines and policies for AI use in education. Concerns for the impact of GenAI on critical thinking have also been raised by other studies (Kizilcec et al., 2024; Saúde et al., 2024). A study by Baidoo-Anu et al. (2024) on Ghanaian higher education students found that while many were aware of ChatGPT and used it mainly for assignments and personal learning, 89% had not received any training in using GenAI tools like ChatGPT. Similarly, Prohorovs et al. (2024) advocated that universities prepare students for a world in which GenAI is prevalent, based on their study of Ukrainian students' perceptions of employers' expectations for GenAI skills. Their study revealed that 54% of students believed employers would soon expect GenAI skills, reinforcing the perceived career relevance of GenAI and the need for universities to respond accordingly in their teaching. These studies and others (e.g., Jochim & Lenz-Kesekamp, 2024) highlight both the appreciation of the positive impact of GenAI and trepidation, as well as the need for clear guidelines and training on the safe and effective use of these tools for the evolving workplace. In an editorial, Thompson et al. (2023) advocated for educators' key role as mediators, emphasising the need to take a balanced view of the threats posed by GenAI alongside its potential to support learning.

Established in 2024, a large collaborative team of 20 Australian higher education scholars initiated the Student Perspectives on AI in Higher Education project to examine how and why students are using AI. This cross-institutional study, involving four universities, used focus groups and a survey conducted between August and October 2024, with 79 students in focus groups and over 8,000 survey respondents. Preliminary results indicate that only 32% of students feel they receive clear guidance on AI use in their studies, and just 23% feel prepared to use AI in their future careers (Bearman & Fawns, 2024). While 67% report successfully using GenAI for various purposes, only 27% trust the outputs, and 65% frequently modify AI-generated content to suit their needs (Shibani & Lim, 2024). The study found that students are learning about GenAI through various channels, such as friends, internet searches, social media, experimentation, and even directly from GenAI itself. Notably, only 7% learned about GenAI from their university (Shibani & Lim, 2024), pointing to a disconnect between institutional offerings and student learning needs, and highlighting a missed opportunity for curricula-based support. Smaller studies, such as those focusing on the impact of GenAI on assessments (Kizilcec et al., 2024) or GenAI-assisted academic writing (Kim et al., 2024), have expanded upon this call for universities to educate students to use AI critically and effectively. These studies emphasise the importance of involving both educators and students in the adaptation to GenAI, adopting a human-centred approach to AI design in education, and ensuring AI literacy is considered in the higher education curricula. This includes helping students comprehend AI-generated content, navigate AI system interfaces, and engage with prompt design, all of which contribute to the effective use of GenAI (Kim et al. 2024).

Recent scholarship underscores the transformative yet contested role of generative AI (GenAI) in higher education, revealing both pedagogical opportunities and systemic challenges. Systematic reviews by Liang, Stephens, and Brown (2025) and Marchena Sekli, Godo, and Véliz (2024) converge on the promise of GenAI to enhance curriculum design, automate assessment, and personalise learning, while cautioning against ethical risks and implementation uncertainties. Empirical studies deepen this discourse: Hughes et al. (2025) frame GenAI as a disruptive force, identifying interrelated challenges such as erosion of academic integrity, inequity, and diminished autonomy, which demand robust governance and human-centric pedagogies. Faculty perspectives, as examined by Almisad and Aleidan (2025), reveal a paradox of high perceived benefits but low actual adoption, suggesting structural and cultural barriers to integration. Similarly, student-focused research by Rispler et al. (2025) highlights expectations for institutional guidance and critical engagement rather than passive consumption, reinforcing the need for pedagogical recalibration. From an employability lens, Lo (2025) and Nartey (2024) argue that GenAI-driven labour market shifts necessitate embedding AI literacy and humanistic competencies into curricula, challenging universities to balance technical fluency with creativity and ethical reasoning. García-López and Trujillo-Liñán (2025) extend this critique to regulatory gaps, warning of algorithmic bias, privacy breaches, and loss of cognitive autonomy, and advocating for inclusive governance models. Collectively, this literature signals a dual imperative: harnessing GenAI's potential for innovation while instituting safeguards that preserve academic integrity, equity, and human agency.

While existing literature provides valuable conceptual and institutional perspectives, it leaves open the question of how students themselves view the role and value of GenAI in their learning. Our study addresses several of these gaps by surveying students across diverse Business disciplines within a third-year capstone unit. Conducted in 2024, a period when GenAI had become more prolific, our study reflects more recent usage trends compared to earlier studies from 2023 or 2022. Furthermore, this research was conducted in a regional university context that uniquely serves a diverse student population, including individuals from rural and underserved areas. These insights offer a broader understanding of student perspectives of GenAI adoption and challenges across varied educational settings.

Method

Research context and scope

The survey was conducted in 2024 within the business school of a regional Australian university. It was administered within a final-year undergraduate capstone unit, which had 222 students enrolled during the Autumn Session (February–June). Participants were studying undergraduate courses in business, including human resource management, finance, marketing, international business, economics, management, public relations, law, and accounting. Although the university had not yet implemented specific policies regarding the use of GenAI in teaching and learning at the time of the survey, there was an expectation that students would acknowledge its use in the development of assessment submissions. The approach empowered individual unit coordinators to determine how, or if, awareness, understanding and use of GenAI can be integrated into components of the curriculum.

In this study, a purposive sampling approach was employed, whereby potential participants were intentionally selected based on their ability to elucidate a specific theme, concept, or phenomenon (Robinson, 2014). This study received ethics approval from the University of Wollongong (Approval Number: 2023/286), ensuring compliance with institutional and national guidelines for research involving human participants. Participants were informed of the project through the unit's online learning platform (Moodle). Additionally, a QR code was provided in the unit's first workshop of the Autumn Session, along with a Moodle announcement inviting students to complete the survey in the first couple of weeks of Session. The participant information sheet, accessible via download on Moodle, assured students that their responses would remain anonymous and be analysed only after survey completion. This paper presents the qualitative analysis of the open-ended questions, comprising responses from 166 students from a cohort of 222.

Survey design and distribution

The anonymous survey was administered via Qualtrics. Students were invited to participate through Moodle and in-class reminders. To maintain anonymity and confidentiality, the first author, who also served as the unit coordinator, did not have access to identifiable data. Instead, the second author de-identified all responses prior to analysis. To address the research questions, students were asked the following:

RQ1: How do undergraduate business students perceive the value of understanding how to effectively use generative AI tools in their university studies?

Question: Do you think understanding how to effectively use GenAI tools in your university units is valuable? Why or why not?

RQ2: How do undergraduate business students perceive the value of developing generative AI literacy for their future professional careers?

Question: Do you think understanding how to effectively use GenAI tools is valuable for your future professional career?

RQ3: What further knowledge or skills related to generative AI use do undergraduate business students identify as important for their academic and professional development?

Question: Based on your current level of knowledge and experience with GenAI tools, what more would you like to learn about GenAI and using GenAI tools?

Analysis

We employed Braun and Clarke's Reflexive Thematic Analysis (RTA) as our analytic approach (Braun & Clarke, 2006; Braun & Clarke, 2019), which prioritises researcher reflexivity and interpretive engagement with data. The analysis was inductive, incorporating both semantic and latent meanings.

The process began with familiarisation, where all authors immersed themselves in the data by reading and re-reading responses and noting initial impressions. NVivo was used to support coding, but decisions were interpretive and reflexive rather than mechanical. Each author independently coded the data and then engaged in collaborative discussions to negotiate coding decisions, ensuring shared understanding while acknowledging subjectivity.

Codes were then examined to identify patterns of meaning and grouped into candidate themes through iterative refinement. Themes were reviewed against coded data and the full dataset to ensure coherence and distinctiveness, with NVivo outputs and raw responses revisited for alignment. Once agreed, themes were defined and named collectively, with attention to accurately representing participants' experiences. The final stage involved producing the report, where themes were written up with illustrative extracts to convey both surface meanings and deeper interpretations. Reflexivity was maintained throughout by critically considering assumptions and the influence of researcher perspectives.

Researcher reflexivity

Consistent with the work of Braun and Clarke (2019) it is important to acknowledge when completing thematic analysis, the assumptions and positionings that the researchers bring to the study. Therefore, we acknowledge that interpretation is shaped by researchers' perspectives, experiences, and assumptions. To maintain reflexive awareness, all authors engaged in ongoing critical reflection throughout the study. This included documenting analytic decisions, discussing emerging interpretations, and considering how positionality influenced meaning-making. For example, the first author's dual role as unit coordinator and researcher was explicitly recognised, and potential bias was mitigated by ensuring that the second author de-identified all responses prior to analysis. Collaborative coding discussions served not to achieve consensus but to deepen interpretive engagement and challenge assumptions. These practices supported transparency and analytic rigour within a reflexive framework.

Results

RQ1: How do undergraduate business students perceive the value of understanding how to effectively use generative AI tools in their university studies?

84% of respondents emphasised the value of understanding how to effectively use GenAI tools in university units. Analysis of the data revealed three core themes: 1) Integrating generative artificial intelligence in Higher Education as essential for contemporary learning, 2) Generative artificial intelligence as a driver of career transformation.

Integrating generative artificial intelligence in higher education as essential for contemporary learning

The most prominent theme from the survey was the perception that integrating knowledge and skills for using GenAI into the university curricula is essential for contemporary learning. Students state they saw value in GenAI being integrated in university units because “university is intended to output students with the most up to date skills and knowledge applicable to their field” (P97), therefore “...it would be beneficial for both the Uni and students if students were taught to understand how to effectively use the tool in their subjects [units]” (P54). One student stated that even if GenAI becomes more regulated in higher education institutions in the future, they state, “it’s important to incorporate AI into education as it is an unavoidable resource that other students can and will use for ‘advantages’” (P5). Another student considers the essential learning about GenAI in university units by highlighting its wider impact and then advocating for embracing it:

> AI will continue to become more relevant/used within daily life, business and academia. Instead of fearing/ignoring it, I think it is best to use it in a beneficial way. Understanding how to use it without blatantly copying and pasting information from AI is beneficial to in a university context. (P6)

Within this first theme, many students described further why embedding GenAI into universities is valuable. For example, several students identified GenAI as being helpful in assisting them “...to gather information on specific topics and areas within their subject” (P99) and in being “helpful throughout the process of understanding new knowledge” (P3). Expanding on this view are the many students who saw benefit in using GenAI to simplify complex information. For example, GenAI was described as able to “speed up research, summarise concepts and represent data in a more simplified manner” (P94), “to condense a big chunk of information into smaller portions” (P98) and “provide another explanation that may help understanding” (P50) of concepts, all which “helps broaden student's capabilities to think, write and solve” (P117). While several students describe GenAI as “a useful learning tool” (P56) which “will redefine the learning space in terms of menial tasks, basic understanding of concepts” (P129), students also recognised that “It is vital we understand the limitations of GenAI to ensure people do not believe they can ‘copy/paste’ from the tool” (P42). Providing opportunities to learn about GenAI within university units was believed to reveal the “ethical and unethical ways of using GenAI tools” therefore “understanding when and when not an appropriate time is to use such tool in a subject is valuable” (P74). This important point about ethics was reinforced by another student who stated, “Having tertiary education around AI would be helpful in knowing the ethical and legal limitations of AI” (P16). Finally, students noted the GenAI potential to “enhance your work when used correctly” (P17) with another student describing how it led to higher grades by supporting them in “clarity in writing and content” to “further enhance” what they had “created and written” (P1).

Generative artificial intelligence as a driver of career transformation

The next theme from the student narratives centred around GenAI being viewed as a driver of career transformation. This theme underscores the numerous student insights on the critical role of learning about GenAI in university units, emphasising its permanence, significance in business, and impact on their career development. For example, one student compared it to technological disruptions of the past, “I liken it to the invention of computers or the internet. Revolutionary and

anyone not implementing it within 2-5 years will fall behind" (P32) and another referring to GenAI as "technological evolution. If we fail to embrace and learn how to properly use GenAI to learn and adapt as a species, I believe that is more dangerous" (P30). Within this theme of transformation, students referred to the business and career importance of GenAI. For example, one student states "AI could be the future for business" (P28), therefore "being taught how to distinguish between effective use of such tools to promote efficiency and there use in the workplace is something that will be extremely useful to implement throughout further university study and in the workforce" (P135). Other students linked the value of GenAI at university to their future careers, by describing GenAI as affecting "the way we interact and practice our jobs in the very near future" (P90) and "it is becoming an inevitable part of our lives and will be used in our future career so it's important to learn how it can further improve learning and use it as a tool" (P53).

RQ2: How do undergraduate business students perceive the value of developing generative AI literacy for their future professional careers?

With 85% of respondents emphasising the importance of understanding and developing skills in using GenAI tools for their future careers, two core themes emerged: 1) GenAI as a catalyst for productivity and efficiency in professional contexts, 2) GenAI as an enabler of specialised and evolving workplace tasks

Generative artificial intelligence as a catalyst for productivity and efficiency in professional contexts

Students consistently highlighted GenAI's potential to streamline workflows, automate routine tasks, and enhance overall performance. Several respondents framed GenAI as integral to future workplace productivity, noting its ability to "help save time in writing and forming the initial idea" (P101) and "process more information in the short time" (P109), thereby "greatly improving one's performance in their profession" (P72). Others emphasised its role in automation, with one student stating, "I believe that AI has a role to play in the automation of future tasks, making work easier and more efficient for future employees" (P77). Similarly, another observed, "I think as these tools become more accepted similar to how googling has become mainstream, people may find efficiencies in workflow and automation of tasks" (P34). This perception was reinforced by comments such as "Gen AI will improve drastically and be adopted by many industries in the future to improve efficiencies" (P154).

Students also recognised the broader implications of GenAI for workplace adaptability and quality of work. For instance, one respondent remarked, "GenAI in the workplace can drastically improve quality of life and quality of work under correct use scenarios" (P137), while another noted, "the world is ever-changing and dynamic, and the knowledge to use such tools is very handy for any workspace engagement or even simple learning tactics" (P31). These insights suggest that students view GenAI literacy as essential for navigating evolving professional environments.

Generative artificial intelligence as an enabler of specialised and evolving workplace tasks

Beyond general efficiency, students acknowledged GenAI's application in specific professional domains such as marketing, research, and human resource management. For example, one student explained, "AI can be used as a research or supplementary tool for research or written

information. I find it useful for generating some ideas, checking work and a starting point for further research" (P6). Others highlighted its growing role in marketing: "working in marketing, AI is becoming more popular as a tool to create content and ideas" (P16), and "I currently use AI at work (writing web copy, social media posts, marketing materials)" (P140). Another respondent observed, "a lot of AI tools are being integrated into businesses as tools for a variety of things thus making it important" (P82). This was echoed by a student who stressed, "you want to be able to manipulate and use this tool to your advantage" (P20).

One aspiring social media professional stated, "my preferred career path is to work in social media and AI is already being used in this field. Having a strong understanding would make me a more beneficial employee or candidate to an employer" (P1). Similarly, a student aiming to enter human resource management noted, "I think understanding how to use GenAI tools is extremely valuable for my future career," citing its use for "analysing resumes, narrowing the candidate pool, analysing data like employee engagement" (P11). Another student currently working in HR described, "I do a lot of writing, write job ads, sometimes draft up all staff comms in relation to upcoming events, conduct interviews and design interview scripts" (P54).

RQ3: What further knowledge or skills related to generative AI use do undergraduate business students identify as important for their academic and professional development?

The final question asked students to reflect on their current understanding and experience with generative AI tools, and to identify specific aspects they were interested in exploring further. This question was optional. Analysis of these responses revealed three major areas of interest: 1) *Understanding and Optimising GenAI Functionality*, 2) *Exploring GenAI Applications Across Contexts*, and 3) Navigating Ethical and Legal Dimensions of GenAI.

Understanding and optimising generative artificial intelligence functionality

The first major area was about students wanting a deeper understanding of GenAI's capabilities. One student stated, "I believe I have a mostly basic understanding of GenAI and would like to have an overall deeper understanding of how it works and how to use it in the practical sense" (P11). Another expressed, "I would like to understand the mechanics of how AI siphons information and condenses it into conversation…" (P34). Another student wanted to learn "how to use them more effectively in a range of situations and context" (P36), while another stated, "Each GenAI tool has its advantages and disadvantages. I want to know how deeply these tools can solve all my questions and how I can use them effectively in conducting tasks" (P24). Prompting was also mentioned by students, specifically wanting to know how to prompt AI for better responses. One student said they "would like to know how to prompt AI … to get a better response" (P53), and another wanted to know "the way to ask the questions to receive the most suitable and useful knowledge" (P100). Another student was interested in "prompts to bypass blocking measures or weak answers" (P103). The third sub-theme involved technical details of GenAI. Students wanted to know more about the companies creating GenAI applications (P93), the data used to train large language models, and their update frequency (P64; P114; P80; P164). Participant 164 specifically wanted to learn "about new architectures, algorithms, and techniques that push the boundaries of what GenAI can achieve". Finally, students expressed a need to explore "how to get valid information from AI tools" (P9) and "how to determine whether GenAI

tools have produced accurate work" (P10). Essentially, they wanted to evaluate the "truthfulness of GenAI outputs" (P141).

Exploring generative artificial intelligence applications across contexts

The second area of interest was exploring various applications of GenAI across different contexts: workplace and/or industry implementations and academic uses. Referring to existing tools, several students stated that they had only used ChatGPT and would like to learn about other GenAI tools (e.g., P19; P30). Other students expanded upon this requesting they would like to know "the different forms and how each tool can be used" (P95), or how to use ChatGPT "to its full potential" (P30) and how other tools might be "potentially more efficient than chatgpt" (P130). Another group of students stated they would like to explore and gain an understanding of the real-world applications across diverse industries. Two students for example state "understanding real-world applications of GenAI in different industries, such as healthcare, finance, marketing, and creative fields" (P18), and "exploring novel applications of GenAI tools across various domains such as healthcare, finance, education ... understanding how these tools are being applied in real-world scenarios can provide valuable insights" (P164). Students noted they wanted to know about "integration in corporate workplace- softwares [*sic*], toolkits, workflow systems" (P31), while others wanted "learn more on how GenAI will play a role into the workforce" (P74) and "about how they're changing current society with the processing and presentation of knowledge ..." (P79). Finally, the other application-based responses from students focused on learning how to use them in a university or academic setting. For example, students stated they wanted to learn "more of how it could be utlised [*sic*] to support students at the university" (P73) or "how to better use it to improve learning knowledge" (P162).

Navigating ethical and legal dimensions of generative artificial intelligence

The next area encompasses student responses expressing a desire to learn more about the ethical and legal implications of generative AI. Specifically, one student states, "I would like to learn more about the legal side of using AI in the workplace and also what issues will come out of the acceleration of AI" (P88). Another student reiterates, "understanding the ethical frameworks and guidelines governing the development and use of AI technologies is crucial" (P164). Additionally, a student notes the importance of knowing "how to ethically use them to avoid copyright/incorrect claims" (P134).

To consolidate the key findings, Table 1 below provides a summary of the research questions, themes, descriptions of the themes, and illustrative quotes. This table is intended to offer a concise overview of the thematic patterns discussed in the preceding sections and highlight how participants' perspectives align with the study's objectives.

Table 1

Summary of findings

Research Question	Theme title	Description of theme	Illustrative quotes
Q1: How do undergraduate business students perceive the value of understanding how to effectively use generative AI tools in their university studies?	Integrating generative artificial intelligence in higher education is essential for contemporary learning	Students view integrating generative AI into university curricula as essential, as it provides them with up-to-date skills to navigate its growing role in academia and industry.	"Having tertiary education around AI would be helpful in knowing the ethical and legal limitations of AI" (P16) "...it would be beneficial for both the Uni and students if students were taught to understand how to effectively use the tool in their subjects [units]" (P54).
Q1: How do undergraduate business students perceive the value of understanding how to effectively use generative AI tools in their university studies?	Generative artificial intelligence as a driver of career transformation.	Students emphasise its permanence and revolutionary impact on business and professional practice. They view learning to use GenAI effectively as critical for future employability and adapting to technological change.	"being taught how to distinguish between effective use of such tools to promote efficiency and there use in the workplace is something that will be extremely useful to implement throughout further university study and in the workforce" (P135).
RQ2: How do undergraduate business students perceive the value of developing generative AI literacy for their future professional careers?	Generative artificial intelligence as a catalyst for productivity and efficiency in professional contexts	GenAI is seen as a key driver of workplace productivity, enabling automation, streamlining tasks, and improving overall efficiency.	"I believe that AI has a role to play in the automation of future tasks, making work easier and more efficient for future employees" (P77).
RQ2: How do undergraduate business students perceive the value of developing generative AI literacy for their future professional careers?	Generative artificial intelligence as an enabler of specialised and evolving workplace tasks	GenAI is viewed as an enabler of specialised workplace tasks, supporting functions such as marketing, research, and human resource management	"working in marketing, AI is becoming more popular as a tool to create content and ideas" (P16)
RQ3: What further knowledge or skills related to generative AI use do undergraduate business students identify as important for their academic and professional development?	Understanding and optimising generative artificial intelligence functionality	Students expressed a strong desire to understand and optimise GenAI functionality, including its mechanics, effective prompting, and technical foundations.	"I would like to understand the mechanics of how AI siphons information and condenses it into conversation…" (P34).

RQ3: What further knowledge or skills related to generative AI use do undergraduate business students identify as important for their academic and professional development?	Exploring generative artificial intelligence applications across contexts	Students want to explore GenAI applications across diverse contexts, including academic settings and real-world industries such as healthcare, finance, and marketing.	"exploring novel applications of GenAI tools across various domains such as healthcare, finance, education ... understanding how these tools are being applied in real-world scenarios can provide valuable insights" (P164).
RQ3: What further knowledge or skills related to generative AI use do undergraduate business students identify as important for their academic and professional development?	Navigating ethical and legal dimensions of generative artificial intelligence	Students expressed a strong interest in learning about the ethical and legal implications of GenAI, including frameworks, guidelines, and workplace regulations.	"I would like to learn more about the legal side of using AI in the workplace and also what issues will come out of the acceleration of AI" (P88).

Discussion

This discussion interprets the findings in relation to the research questions and situates them within existing literature. The study makes a distinctive contribution by incorporating student perspectives on GenAI literacy within business education, an area where empirical evidence remains limited. By foregrounding learner priorities, this research offers insights for curriculum design and pedagogical practice. The discussion is organised around the research questions to provide a clear alignment between findings and interpretation.

RQ1: How do undergraduate business students perceive the value of understanding how to effectively use generative AI tools in their university studies?

The findings indicate that undergraduate business students perceive significant value in learning to use generative AI tools effectively during their university studies, with two dominant themes emerging. First, students view the integration of GenAI into higher education as essential for contemporary learning. They emphasise its role in supporting comprehension, simplifying complex information, and enhancing academic performance. Importantly, students also recognise the need for ethical and legal guidance, suggesting that embedding GenAI within curricula is critical for fostering responsible and informed use rather than reliance on uncritical practices.

Second, students' position GenAI as a driver of career transformation. They conceptualise GenAI as a technological evolution comparable to previous disruptive innovations, highlighting its inevitability and strategic importance for future employability. This perspective underscores that students value GenAI not only as a learning aid but also as a competency that will shape their readiness for an AI-driven economy.

Together, these themes suggest that students perceive GenAI literacy as integral to both academic success and professional adaptability. Their insights reinforce the argument for embedding structured GenAI education into business curricula to ensure graduates are supported in developing the technical, ethical, and strategic skills required in contemporary and future workplaces.

The first theme identified in response to this research question aligns with Liang et al. (2025), who argue that integrating generative AI into higher education curricula presents substantial opportunities to enhance learning outcomes. Our findings also resonate with prior studies (Chan & Hu, 2023; Liang et al., 2025) that emphasize the importance of embedding ethical and responsible use of GenAI within curricular design. This perspective contrasts with research on academic views (Almisad & Aleidan, 2025; Hughes et al., 2025; Luo, 2024), which, from a teaching standpoint, express reservations about integration. These concerns include potential threats to academic originality, over-reliance on technology, diminished critical thinking capabilities, and the exacerbation of equity gaps.

The second theme revealed that students perceive learning how to use GenAI in their university studies as valuable for both current academic success and future career prospects. This finding supports research by Wu et al. (2025), who identified a positive relationship between AI literacy and employability, reinforcing the argument that structured AI education is critical for career readiness. Students in our study generally viewed GenAI integration as beneficial; however, existing literature highlights important cautions before widespread adoption. For example, Lo (2025) warns that universities risk prioritizing GenAI tools at the expense of cultivating distinctly human capabilities—such as critical thinking, creativity, and empathy—which remain essential for long-term employability. Similarly, Nartey (2024) argues that both prohibitions and uncritical adoption of GenAI can misalign with employability goals, stressing the need for curricula that foster adaptability and ethical reasoning rather than mere technical proficiency. Rispler et al. (2025) further note that while students perceive GenAI as useful, educators must scaffold its integration to prevent erosion of problem-solving and adaptability skills that employers value more than technical dependence on AI tools. This tension reflects ongoing debates about whether AI integration should prioritise technical proficiency or cultivate broader critical and ethical competencies within higher education.

RQ2: How do undergraduate business students perceive the value of developing generative AI literacy for their future professional careers?

Findings indicate that undergraduate business students overwhelmingly perceive generative AI literacy as essential for future employability, with two dominant themes emerging. First, students view GenAI as a catalyst for productivity and efficiency, emphasising its role in automating routine tasks, accelerating information processing, and improving overall workplace performance. Second, students recognise GenAI as an enabler of specialised and evolving workplace tasks, particularly in domains such as marketing, research, and human resource management. We argue that these insights underscore the need for higher education curricula to integrate GenAI literacy not only as a technical skill but as part of broader employability strategies. Doing so may enhance graduates' readiness for workplaces increasingly shaped by automation and AI-enabled decision-making.

The findings of this study build on and extend existing literature on GenAI in higher education. Consistent with Kelly et al. (2023), who reported low levels of confidence and experience among students early in GenAI's adoption, our results suggest a significant shift in perceptions, with students now strongly valuing GenAI literacy for career success. This change likely reflects the rapid integration of GenAI into professional and social contexts since 2023, underscoring the importance of considering timing when interpreting earlier studies. Similar to Chan and Hu (2023),

students in this study acknowledged GenAI's utility for tasks such as research, content creation, and idea generation, reinforcing its perceived role as a learning and productivity tool. However, while Chan and Hu (2023) highlighted concerns about ethics, transparency, and critical thinking, our findings reveal a second emphasis on employability and adaptability, suggesting that career relevance has become a key driver of student attitudes. This aligns with Prohorovs et al. (2024), who found that students anticipate employer expectations for GenAI skills, yet our study contributes by providing empirical evidence from a regional Australian context and demonstrating recognition of GenAI as a critical competency. Furthermore, while Bearman and Fawns (2024) reported that 23% of students felt prepared to use AI in their careers, our findings indicate a clear desire for structured training, reinforcing calls for curriculum redesign to embed GenAI literacy. Collectively, these insights advance the discourse by situating GenAI not only as a pedagogical tool but as a strategic skill essential for future employability, highlighting the urgency for business education to integrate practical and ethical GenAI competencies.

RQ3: What further knowledge or skills related to generative AI use do undergraduate business students identify as important for their academic and professional development?

The findings reveal three key areas of interest that reflect students' priorities for deepening their generative AI (GenAI) knowledge and skills. First, students emphasised the need to understand and optimise GenAI functionality, including effective use, advanced prompting techniques, technical underpinnings, and strategies for critically evaluating outputs. This suggests a shift from basic familiarity toward a desire for mastery and informed engagement. Second, students expressed interest in exploring GenAI applications across contexts, from diverse industry implementations to academic uses and the capabilities of different tools beyond ChatGPT. This highlights the importance of situating GenAI literacy within authentic, real-world scenarios to enhance transferability. Third, ethical and legal considerations emerged as a critical learning priority, with students seeking guidance on responsible use, copyright compliance, and regulatory frameworks—echoing broader calls for embedding ethics into AI education. We believe these findings underscore that students' expectations extend beyond operational proficiency to encompass strategic and ethical dimensions of GenAI literacy, reinforcing the need for curricula that integrate technical skills with critical and contextual understanding.

Our findings align with emerging literature that underscores the growing importance of generative AI literacy in higher education. Prior studies have highlighted the need for instruction in prompt engineering and technical understanding (Lee & Palmer, 2025; Xiao et al., 2025), as well as frameworks that incorporate tool selection and output evaluation (Zhang & Magerko, 2025). Similarly, research has emphasized the value of situating AI learning within authentic contexts to enhance transferability (Marchena Sekli et al., 2024) and the imperative to embed ethical and legal considerations into curricula as well as fairness, inclusivity and student rights (García-López & Trujillo-Liñán, 2025; Pandit, 2025). Our findings resonate with recent reviews that critique the fragmented nature of GenAI education, where technical, contextual, and ethical dimensions are often addressed in isolation (García-López & Trujillo-Liñán, 2025; Yan & Liu, 2024). However, our study extends this discourse by introducing a student-driven perspective, revealing that learners themselves expect these dimensions to be integrated within a single, coherent learning trajectory. This emphasis on holistic design, articulated by students rather than inferred by educators or policy makers, represents a distinctive contribution to current debates on AI literacy. Moreover, our findings suggest a shift toward strategic engagement, with students aspiring to informed and

expert-level interaction with GenAI tools rather than surface-level use, marking a distinctive contribution to current understandings of AI education.

Implications for practice

The findings of this study highlight several practical implications for teaching and learning in higher education. First, institutions should integrate GenAI literacy across curricula through structured modules that integrate technical skills such as prompt engineering and output evaluation with ethical and legal considerations. This approach ensures students develop both operational proficiency and critical awareness. Second, scaffolded learning experiences are essential to support progression from foundational understanding to advanced applications in authentic contexts, enabling students to move beyond surface-level use toward informed and strategic engagement. Third, curricula must explicitly address responsible use, copyright compliance, and regulatory frameworks to prepare students for professional environments where ethical reasoning is paramount. Fourth, teaching should incorporate discipline-specific applications of GenAI (e.g., marketing, human resource management, finance) to enhance relevance and transferability. Fifth, pedagogical strategies should position GenAI as a tool to enhance, not replace, critical thinking, creativity, and problem-solving, countering deficit narratives and ensuring graduates retain humanistic competencies alongside technical fluency. Finally, co-designing learning experiences with students will ensure curricula reflect evolving needs and workplace expectations, fostering engagement and ownership.

Limitations and further research

This study has several limitations that warrant consideration. First, as a cross-sectional investigation, it captures student perceptions at a single point in time, limiting insight into how attitudes toward generative AI (GenAI) may evolve as students' progress through their studies or as institutional policies mature. Second, the research focuses exclusively on student perspectives, without incorporating the views of educators or industry professionals. This restricts our ability to evaluate the alignment between curricular interventions and workplace expectations. Third, a potential limitation lies in the way the survey questions may have reflected a positive orientation toward GenAI. This framing could have influenced participants' responses, aligning with broader discourses that present AI as an educational advancement. However, this perspective is not without significance. By foregrounding GenAI as a tool for enhancing learning rather than diminishing cognitive rigor, our findings challenge deficit-oriented narratives that depict AI as eroding critical thinking (Chan & Hu, 2023; Kizilcec et al., 2024). Instead, participants consistently articulated GenAI as integral to contemporary learning, reinforcing the need for pedagogical strategies that embed AI literacy alongside critical and ethical reasoning. Such approaches would ensure students acquire technical proficiency while cultivating higher-order cognitive skills.

Future research should address these limitations through longitudinal studies that examine how student perceptions of GenAI shift over time and whether pedagogical strategies integrating AI literacy and ethical reasoning lead to sustained development of higher-order cognitive skills. Comparative studies across disciplines and cultural contexts could explore how different framings of GenAI—such as deficit-oriented versus advancement-oriented—shape student perceptions and engagement. Additionally, research incorporating educator and industry perspectives would

provide a more holistic understanding of how curricula can balance technical competence with critical and ethical dimensions. Finally, investigating discipline-specific approaches and assessing the impact of GenAI literacy on learning outcomes and employability would offer valuable insights for curriculum design.

Conclusion

This paper presents the qualitative, open-ended student responses to three key questions: (1) How do undergraduate business students perceive the value of understanding how to effectively use generative AI tools in their university studies? (2) How do undergraduate business students perceive the value of developing generative AI literacy for their future professional careers? and (3) What further knowledge or skills related to generative AI use do undergraduate business students identify as important for their academic and professional development? Thematic analysis of these responses provides valuable insights into students' perceptions of GenAI's role in higher education and their professional futures, while also highlighting key gaps in knowledge and areas for curricula development.

Findings from this study underscore the need for higher education institutions to adopt a purposeful and balanced approach to integrating GenAI into the curricula. Students clearly value GenAI as a learning tool that can enhance critical thinking, support ethical and legal understanding, and improve their academic and professional productivity. As such, we recommend embedding GenAI literacy and practice across units through scaffolded learning experiences that cover not only technical skills, but also ethical, legal, and critical engagement with AI. This includes the development of discipline-specific learning modules, real-world applications, and opportunities for students to reflect on the implications of AI use in their field.

Overall, this study contributes to the growing evidence base that students are not only ready, but eager to learn more about GenAI. By responding to this demand through well-designed curricula integration, universities could support graduates in developing the critical and practical AI skills necessary to thrive in a rapidly evolving digital landscape.

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