Reimagining Business Educators: Leveraging Generative AI for Enhanced Teaching

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Abstract: Generative AI (GAI) is rapidly transforming the work processes of academic staff of higher education institutions (HEIs). Previous study focused on students' use of GAI but the impact of GAI on faculty remains underexplored, especially in business schools in which there is a strategic importance in fostering innovation and developing future leaders. The integration of Generative AI tools, such as ChatGPT, is revolutionizing how business educators carry out their work in business schools. This paper presents a scoping review of a structured literature search identifying a core canon of recent articles addressing how GAI is changing the work conducted in business schools of Higher Educational Institutions. Literature searches were conducted in Web of Science (WoS) and Education Resources Information Centre (ERIC) databases from 2019 to 2024, using tailored search terms encompassing GAI, academic staff, business education and HEIs. A total of 502 articles were identified, with 211 from WoS and 291 from ERIC. After several stages of manual screenings, 15 final articles were obtained for this scoping review. The findings of the analysis reveal that GAI tools have integrated in the four major teaching work processes in business education: Curriculum Design, Pedagogical Methods, Student Engagement and Interaction and Assessments. In addition, the study surprisingly figured out that much less emphasis was given to the research side of the duties of academic staff. Our findings suggest that, under the human-GAI collaboration in teaching work processes in business schools, the role of educators have changed to be: Quality Controller, Scenario Facilitator, Strategic Mentor and Ethical Gatekeeper for the four major teaching work. Future research should focus on discipline-specific study, empirical evaluations of teaching work processes at tool-specific level, and in different cultural context. More research should also be conducted on researching work processes and institutional administration. This study contributes to the discourse of digital transformation and the potential of human-GAI collaboration in higher education.

Keywords: Generative AI, Educators, Business schools, Higher education, Human-Machine collaboration, Academic work processes

1. Introduction

Generative Artificial Intelligence (GAI) can generate text, code, images, audio, and video in response to user inputs ("prompts"). There are several types of GAI but the text-to-text models (such as ChatGPT, Microsoft Copilot, Google Gemini and DeepSeek) which based on Large Language Models (LLMs) are the most widespread (Zhou & Zhang, 2024). For academia, GPT-2 (a former version of Current GAI tools) started to integrate into Higher Education Institutions (HEIs) (Radford et al., 2019). The tool had rich interactions and precise human-like responses, thus gained attention in academia. Since GAI learns automatically from the users, it drives automation, efficiency, and creativity in ways not seen before (Ratten and Jones, 2023; Damar, 2022). ChatGPT's launch in November 2022 has pushed this transformation further, reshaping workflows and opening new ways for humans and machines to collaborate (Bozkurt, 2023). GAI tools like ChatGPT are no longer AI-supported systems which HEIs invested into the organization. Instead, they are user-initiated and are used on personal devices anytime and anywhere by stakeholders in HEIs. Prior installation approval is not required from the IT department, therefore HEIs have developed "AI usage policy" to guide academic staff for a fair and proper usage of GAI tools in their work.

The two main duties of academic staff are teaching and researching (conducting research and publishing results). The core work processes in teaching include designing curricula and courses, deciding pedagogical methods, engaging and interacting with students and developing assessments and evaluation (Xu and Babaian, 2021). GAI tools offer many opportunities to improve teaching. (Chu et al., 2022). For example, it enables more personalized and interactive teaching, give automatic tailored feedback and create educational materials, aimed at improving student engagement (Cambra-Fierro *et al.*, 2024; Dwivedi et al., 2023; Shanto et al., 2023), and instructors must rethink how assessments are conducted. While for researching, it involves identifying literature and conducting review, identifying research gaps, setting up research questions, collecting and analyzing data, coding and academic writing/editing, etc. (Korinek, 2023). GAI can change research methodologies (Chu et al., 2022) and streamline the aforementioned processes with speed and accuracy (Chu et al., 2022; Dwivedi et al., 2023). Despite all the benefits, concerns about ethics, academic integrity, the reliability of GAI-generated outputs, and the overall effects of GAI on academic work processes (AWP) remain major topics of debate (Cambra-Fierro *et al.*, 2024; Bozkurt, 2023; Strzelecki, 2023). Tools like ChatGPT are free and are accessible on personal devices,

making an easy usage for range of AWP (Chui et al., 2023). However, according to Saraev (2024), many academic staff have yet to fully embrace these tools, even as other stakeholders increasingly rely on them. This imbalance has created challenges as GAI tools continue to disrupt traditional ways of teaching and researching (Adeshola and Adepoju, 2023; Baig and Yadegaridehkordi, 2024; Dwivedi *et al.*, 2019; Dwivedi *et al.*, 2022; Dwivedi *et al.*, 2023).

Business schools have a unique role in preparing students for leadership roles across industries. By responsibly adopting and collaborating with GAI tools, business educators can improve teaching quality and research practices while also showing students responsible use of GAI (Davenport and Ronanki, 2018). To date, there is limited and fragmented research about academic staff and GAI in HEIs, focusing broadly on higher education without specific emphasis on business schools. Studies have highlighted both opportunities, like personalized teaching and streamlined administrative processes, and challenges, including ethical concerns and resistance to adoption (Cambra-Fierro et al., 2024; Clegg and Sarkar, 2024). Some research, for instance, has applied frameworks like the Technology Acceptance Model (TAM) and Bloom's Taxonomy to understand adoption patterns and pedagogical impacts (Cambra-Fierro et al., 2024; Thanh et al. 2023). However, a coherent understanding of the division of labour between humans and GAI for AWP in business schools remains underdeveloped (Bahroun et al., 2023; Vecchiarini & Somia, 2023). This study aims at addressing this gap by conducting a scoping review to explore the potential human-GAI collaboration in business schools. It focuses on the division of labour for different AWP and the change of role for academic staff while they are being assisted and/or augmented by GAI tools. As a result, this scoping review addresses the below research questions:

RQ1. How do the trend of research change after the launch of ChatGPT in Nov 2022, regarding the usage of GAI on different AWP in business schools of HEIs?

RQ2. How do academic staff collaborate with GAI tools for teaching and researching work processes in business schools of HEIs, and what are the tools utilized in different processes?

This study aims at developing a framework according to the division of labour between academic staff and GAI tools in handling different work processes in business schools.

2. Theory

Cognitive systems supported by GAI assist or augment humans at the task level, but they cannot finish the entire job of a knowledge worker like academic staff (Davenport and Ronanki, 2018). Humans and GAI tools have distinct strengths so they can complement each other in different AWP. GAI tools with LLMs and big data, can process vast amounts of information quickly (Clark, 2023). This makes it more efficient than humans in summarizing literature, generating different types of drafts and automating repetitive tasks such as part of the grading job (Gupta *et al.*, 2024; Krammer, 2023; Xu and Babaian, 2021). However, GAI tools are not skilful at critical thinking, contextual understanding, ethical reasoning and empathic skills (Bhaskar and Gupta, 2024). As a result, humans excel more in personal or sensitive decision-making with their intuition, emotional intelligence, experience and deep disciplinary knowledge (Bhaskar and Gupta, 2024), thus can access nuanced arguments and detect underlying biases (Baidoo-Anu and Ansah, 2023). Humans are also capable to utilize and re-evaluate free-flowing information from multiple perspectives, together with deep domain expertise, they can develop original insights which GAI are inflexible because of pre-defined rules which they are designed to follow (Gupta *et al.*, 2024).

Kolbjørnsrud (2023) developed a human-machine organizational intelligence matric which consists of five distinct configurations of intelligence, depending on the collaboration works among human and AI. Two major configurations are focusing on the works being done by AI and humans together. The first one was "augmented intelligence" in which a human uses AI technologies to improve, accelerate, and/or support their work. The second one was "augmented collective intelligence" where more than one human and AI technologies collaborate to work out the task (Kolbjørnsrud, 2023). In business education of HEIs, Clegg and Sarkar (2024) also designed a conceptual framework for machine-human interfaces in education and research. This study suggested the division of labour between humans and GAI for AWP be categorized according to the interplay between the degree of human and machine involvement and the orientation of knowledge (Theory vs. Practice). There are four major quadrants: AI-Dominant, Human-Dominant, Machine-Artisanship and Machine-Human Symbiosis, in which the latter two quadrants focused more on human-GAI collaboration. "AI-Artisanship" represents the team works where GAI primarily execute practical tasks, augmenting processes of application in real-world scenarios, while "AI-Human symbiosis" suggested a balanced interplay between human and GAI in both theoretical and practical aspects in the context of business education (Clegg and Sarkar, 2024). Although

both studies have given a high-level understanding of how academic staff will be able to collaborate with GAI tools in carrying out AWP in a knowledge-intensive organization, it remains unclear about which academic AWP will be impacted the most, how can the collaboration works out between humans and machines in the business schools, and what will be the influence of this human-GAI collaboration on the role of educators.

3. Methodology

This study employs a systematic scoping review methodology to ensure comprehensive and rigorous exploration of the topic (Tricco et al., 2018). According to Munn et al. (2022), scoping reviews aim to map and explore the evidence available on a certain topic, concept, or issue. It is more adaptable and allow changes as the review progresses, and the data collected is often descriptive or textual, allowing themes or categories to be analyzed through simple methods like content analysis (Campbell et al., 2023). This review paper uses the Scoping Reviews (PRISMA-ScR) statement by Tricco et al. (2018) and the "Population, Concepts, and Context" (PCC) criteria as recommended by Peters et al. (2021), which clearly identifies the focus and set up the inclusion and exclusion criteria (Table 1).

Table 1: Eligibility criteria

	Inclusion Criteria	Exclusion Criteria
Population	Academic staff (PhD fellows and professors of different levels) of the business schools	Academic staff of the non-business schools; Respondents are students / students are the focus in the articles; Academic staff of non-business schools / department / studies
Concept	Usage/adoption/effect/impact of GAI systems/tools/platforms on different work processes of academic staff; Academic staff's perceptions of GAI in their working processes; Assessment and feedback directly relating to working processes of academic staff with GAI	Publication which is not relevant to the usage/adoption/effect/impact of GAI systems/tools/platforms; Online learning relevant to GAI; Overview, predictions and strategies about GAI not relevant to work processes of academic staff in HEIs
Context	Higher education institutions	Other education contexts, e.g. early education, elementary schools, vocational education; System perspective, e.g. comparison of different version of ChatGPT in doing assessments, development of GAI tools to help with the works of academic staff in HEIs
Timespan	2019 – Nov 2024	Publications outside of the period between 2019 to Nov 2024
Publication status	Peer-reviewed journal articles	Books, Reports, Proceedings or conference papers, Grey literature, Discussions, Editorials, letters, Opinions, Commentary and Viewpoint commentary, publications not accessible online
Language	English	Non-English
Research design	Empirical research articles / Scientific articles drawing on empirical data; Theoretical and conceptual articles relevant to the "concept"	Literature reviews, argumentative review, Meta-analysis, Content analysis, and Bibliometric analysis
Geography	All	-

Literature searches were conducted in Web of Science (WoS) and ERIC databases on 4th December 2024, using tailored search terms encompassing GAI, academic staff, business education and HEIs. The major search string was constructed with a Boolean logic as: (Topic: Group 1) AND (Topic: Group 2) AND (Topic: Group 3) and (All fields: Group 4) (Table 2). A similar search was made in ERIC by adjusting search settings to suit this database.

A total of 502 articles were identified, with 211 from Web of Science (WoS, which is a more general database) and 291 from Education Resources Information Centre (ERIC, which is a database more specialized in educational research). After automatic de-duplication by EndNote21 software and several stages of manual screenings (Figure 1), 15 articles, which were all published between 2023 and 2024, were obtained for this scoping review.

Table 2: Four major keywords group

Group	PPC framework	Keywords
Group 1	Academic Staff	"educator*" or "professor*" or "faculty member*" or "teacher*" or "researcher*" or "scholar*" or "lecturer*" or "instructor*" or "academic staff" or "teaching staff"
Group 2	Generative AI tools/systems/platforms	"generative AI" or "chatgpt" or "chatbot" or "conversational AI" or "GAI" or "Generative artificial intelligenc*" or "GPT*" or "Alphacode" or "Github copilot" or "bard"
Group 3	Higher Education institutions	"higher education*" OR "tertiary education*" OR "universit*" OR "adult learning" OR "professional education*" OR "professional development" OR "management education*"

Group	PPC framework	Keywords
Group 4	Business School/Studies	"business" or "business management" or "business stud*" or "marketing*" or "accounting*" or "entrepreneurship*" or "economic*" or "finance*" or "operation*" or "supply chain*" or "information system*" or "strateg*" or "business analytic*" or "business education*" or "management education*" or "management business administration" or "management school*" or "teaching management" or "MBA"

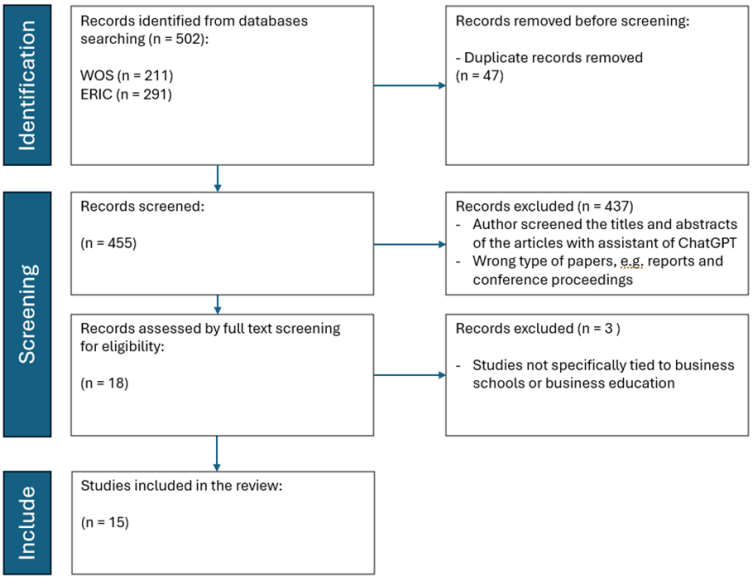

Figure 1: PRISMA diagram

The research questions served as the guidelines for extracting and analyzing data. To answer the first question, a descriptive analysis was conducted. For the second research question, a content analysis was carried out on the 15 final articles by using an excel spreadsheet to facilitate the analysis process (Creswell, J.W., 2001). Content analysis involves coding and categorizing data into predefined or emerging groups, enabling researchers to quantify and interpret the occurrence of specific concepts, phrases, or themes within a dataset (Krippendorff, 2019). A coding framework is established, then data are categorized, counted, and analyzed to identify patterns and trends. In this study, open coding was used to create descriptive codes from the data, allowing an open exploration of content. Relationships between codes were examined, leading to themes, which were refined by revisiting and integrating the data cohesively (Schei et al., 2024).

4. Findings

4.1 Research Question 1: "How do the trend of research change after the launch of ChatGPT in Nov 2022, regarding the usage of GAI on different AWP in business schools of HEIs?"

Although GAI tools were integrated to HEIs since 2019 the final articles included in this review were all published in 2023 (8 publications) and 2024 (7 publications). The location of these papers is in four continents (Figure 2) Europe is having the 2nd-most published papers in this study, this does not align with Crompton and Burke (2023), Li, et al. (2021) and Schei et al., (2024) which found the concentration of research about GAI and HEIs has been shifting from North America to Asia. This may be due to the focus of this study is business schools and with only 15 final articles selected.

This study found previous literature in different disciplines of business schools about usage of GAI tools by academic staff (Figure 3). Overall, the number of research in different business subjects in the context of academic staff and GAI is very few and most of them did not have a focus on a specific discipline, indicating and obvious research gap in this area. Although there were only 15 articles in this review paper, it is obvious that 6 of them were published to journals relevant to general business management subject, followed by publications in information systems/technology relevant journals (n = 5). This finding (Figure 4) may mean opportunities to

carry out future research in other business-relevant education areas, e.g. economics, accounting, marketing, etc.

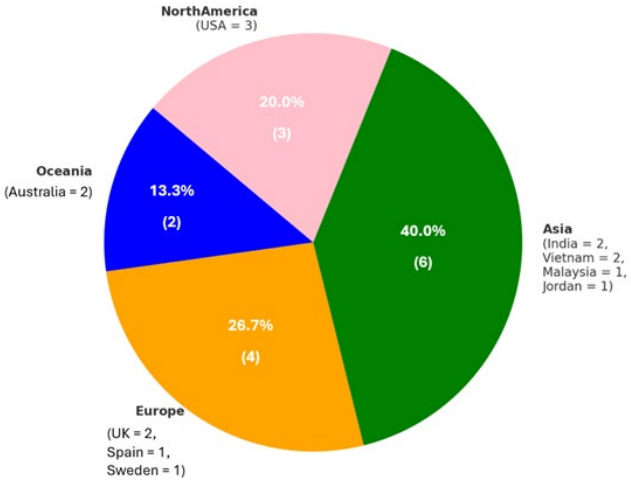

Figure 2: Geographical distribution of the included articles

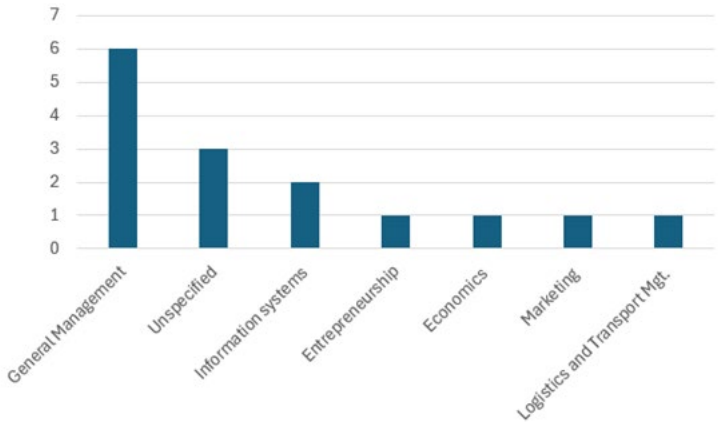

Figure 3: Business disciplines in the included articles

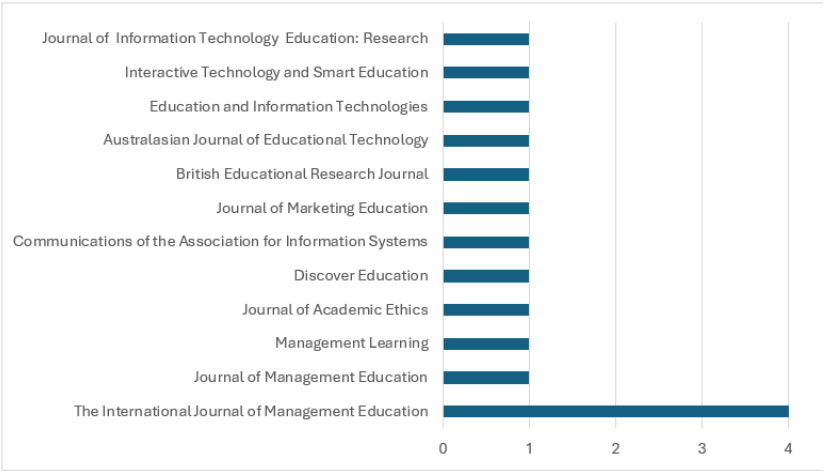

Figure 4: Journals of the final articles

4.2 Research Question 2: "How do academic staff collaborate with GAI tools for teaching and researching work processes in business schools of HEIs, and what are the tools utilized in different processes?"

Content analysis was conducted on the 15 final papers. After a thorough coding of the documents, four major work processes under teaching where academic staff assisted by / collaborated with GAI tools are identified:

Curriculum design, Pedagogical methods, Student engagement and interaction, and Assessments (Table 3). Although the study also targeted to investigate researching work processes, the final papers only mentioned briefly about the general benefits and/or challenges of GAI usage by academic staff without details about specific tasks under researching. Thus, this study will focus on teaching work processes in the follow sections. In addition, 10 out of 15 articles focused on the usage of ChatGPT by business academic staff, while the rest mentioned tools like Google Bard, Microsoft Bing or Natural Language Processing tools in general without details about usage on a specific work process.

4.2.1 Curriculum design

Curriculum design is a fundamental responsibility of academic staff, focusing on "what" to teach in a course. Traditionally at the course level, selecting content, determining sequences of instructions, and developing materials such as lecture notes or presentation decks from scratch are being done manually by educators (Fischer and Dobbins, 2023). This also includes choosing key theories, assigning appropriate readings, and ensuring each class builds on prior knowledge being taught. In business education, it is important to equip students with up-to-date industry trends to increase their employability after graduation (Clegg and Sarkar, 2024). However, for educators to stay updated with trends for course materials requires time-consuming engagement with academic literature and business reports. Similarly, adapting program-level curricula to industry demands also depends heavily on educators' manual effort and expertise.

With the assistance of GAI tools like ChatGPT and based on predefined learning objective, educators can begin course planning by prompting the tool to suggest lesson plans and course outlines (Bhaskar and Gupta, 2024). Summarizing key theories, identifying relevant literature, and suggesting readings for each topic can also be done by GAI tools (Krammer, 2023). Another pain point of educators is keeping course content up with industry trends, but these can also be addressed through GAI tools which have access to news, academic references, and other resources from extensive databases or online (Krammer, 2023). Moreover, after educators' prompt GAI tools for drafts, they check and refine the contents according to pedagogical goals without making them from scratch. At the program level, there will be a high chance for GAI tools to help with identifying industry-relevant skills, mapping program competencies to job market trends, and generating draft syllabus for new courses (Darnell and Gopalkrishnan, 2024). This will allow institutions to dynamically adapting curricula to the ever-changing business landscape.

4.2.2 Pedagogical methods

Business schools tend to use case studies, experiential learning, and lecture-based instruction as pedagogical methods (Darnell and Gopalkrishnan, 2024). Pre-GAI, educators manually selected cases, created discussion questions, and simulate students through complex business scenarios by made use of in-class exercises. With the assistance of GAI tools like ChatGPT, some of these labour-intensive tasks can now be offloaded (Husain, 2024). In marketing education, for example, GAI can generate new case scenarios by synthesizing vast business data to mimic real-world challenges (Shimek, 2023; Gupta et al., 2024). ChatGPT also supports the creation of alternative marketing strategies and business model simulations, allowing educators to focus on deeper analytical discussions (Clegg and Sarkar, 2024; Darnell and Gopalkrishnan, 2024). For instance, GAI can help generating new marketing cases by synthesizing vast amounts of business data to mimic real-world challenges (Shimek, 2023). In addition, educators use ChatGPT to generate alternative marketing strategies and business model simulations, leaving them more time in focusing on deeper analytical discussions with students (Clegg and Sarkar, 2024; Darnell and Gopalkrishnan, 2024).

Beyond designing cases and exercises, integrating GAI tools into class activities is emerging as a new teaching approach to build students' critical thinking and strategic decision-making skills (Ratten and Jones, 2023; Guha, Grewal and Atlas, 2023; Darnell and Gopalkrishnan, 2024). For instance, entrepreneurship educators can ask students to utilize GAI tools to write business plans or generate social media and visual branding content (Darnell and Gopalkrishnan, 2024). In marketing courses, educators identified widespread application of ChatGPT in real-world practice, such as drafting product descriptions and customer service messages, or brainstorming and crafting business plans etc. (Guha, Grewal and Atlas, 2023). Such exposure helps students develop job-ready GAI competencies (Fischer and Dobbins, 2023; Guha, Grewal and Atlas, 2023).

4.2.3 Student engagement and interaction

Engaging and interacting effectively with students is one of the major teaching tasks in business schools. Besides lecturing knowledge by delivering course content, educators need to ensure students' active class participation, theories application, and higher-order thinking skills development (Freeman et al., 2014). Pre-GAI, these

required educators to prepare all materials, facilitate discussions and response to students' questions. All these are labour-intensive, especially in larger classes (De Hei et al., 2014). Nevertheless, GAI tools like ChatGPT allows educators to redistribute certain instructional tasks, improve productivity, improve engagement and interaction, and the overall education experience (Husain, 2024, Krammer, 2023).

With GAI integration, some student engagement tasks can be offloaded from educator. For example, ChatGPT assists in summarizing key theories and formulating discussion questions tailored for student interactions (Bhaskar & Gupta, 2024). Educators also use GAI-powered tools, backed by massive up-to-date data, to generate real-world cases and business scenarios aligned with industry trend to encourage students' in-class participation (Guha, Grewal and Atlas, 2023). When students ask about basic conceptual questions, GAI tools can assist by offering fast and clear clarifications (Dwivedi et al., 2022; Gupta et al., 2024). To increase in-class interactivity, GAI tools can be used for brainstorming, generating case studies, quizzes, role-play, and gamified activities (even the educator may not be familiar with such approach) (Bhaskar and Gupta, 2024). In marketing, for example, ChatGPT can rapidly generate flashcards or outline concepts to support presentation decks (Guha, Grewal and Atlas, 2023).

4.2.4 Assessments

Designing and grading assessments is another major teaching work task for business educators (Xu and Babaian, 2021). GAI can assist to create different types of assignments. According to Bhaskar and Gupta (2024), ChatGPT supports business educators by drafting and creating quizzes, multiple-choice questions, and research essays. Based on human expertise and experiences, educators then amend these GAI-generated drafts by requiring students to apply specific theories, datasets, or real-world cases taught in the course, reducing the possibility of students using GAI tools during assessments and ensuring originality and authenticity in their responses (Perkins et al., 2023; Van Slyke, Johnson and Sarabadani, 2023; Flodén, 2024).

GAI also plays a transformative role in grading and feedback. According to Flodén, 2024, grading is often boring and time-consuming, especially in large business courses, as educators evaluate numerous essays/proposal or financial analyses. Thus, GAI-assisted grading may lessen these workloads. Besides, educators should have grading rubric or marking scheme they developed beforehand (Thanh et al., 2023), and they look for keywords in students' answers to set up detailed model answers (Flodén, 2024). GAI tools can be trained by using these rubrics to evaluate keywords, concepts and arguments according to educator's prompts. As backed by the powerful LLMs, GAI tools also enhance educators' grading ability in assessing writing sophistication and quality, and ensure proper use of academic references (Krammer, 2023).

Previous studies suggested GAI grading is comparable to human assessment in certain disciplines. For instance, ChatGPT's performance in grading six medical students' answers to 10 case-style questions, is similar to a human grader (Morjaria et al., 2024), Similar findings also concluded in business education (Flodén, 2024). Besides, GAI also have potential to enhance feedback. According to Krammer (2023), GAI can provide better feedback for assessment, improving epistemic virtues such as open-mindedness and intellectual humility. Moreover, GAI-augmented educators can speed up grading and offering feedback by leveraging GAI's ability in offering summaries and highlighting strengths and weaknesses in students' answers (Husain, 2024). Additionally, GAI assists educators in generating solutions for short-answer questions (Van Slyke, Johnson and Sarabadani, 2023) and offers personalized feedback and recommendations to students (Gupta et al., 2024).

Table 3: Content analysis - 15 selected articles showing the 4 major teaching work processes of human-GAI collaboration

Study	Curriculum Design	Pedagogical Methods	Student Engagement and Interaction	Assessments
Bhaskar and Gupta (2024)	X	X	X	X
Cambra-Fierro et al. (2024)		X	X	
Clegg and Sarkar (2024)	X	X	X	X
Darnell and Gopalkrishnan (2024)	X	X	X	
Fischer and Dobbins (2023)	X	X		
Flodén (2024)				X
Guha, Grewal and Atlas, 2023	X	X	X	X
Gupta et al. (2024)	X	X	X	X
Husain (2024)		X	X	X
Krammer (2023)	X		X	X
Lim et al. (2023)			X	X
Perkins et al. (2023)				X
Ratten and Jones (2023)			X	X
Thanh et al. (2023)				X
Van Slyke, Johnson and Sarabadani, 2023	X	X	X	X

5. Concluding Discussion – Change of Roles for Human Business Educators

This study reveals how business educators use or collaborate with GAI tools in the four major teaching work processes: Design curriculum, set-up pedagogical methods, engage and interact with students, and develop assessments. As a result of the GAI advancements in curriculum design, educators have shifted from sole content creators with expertized knowledge to quality controller in GAI-enhanced teaching environments, as they now oversee GAI-generated materials to ensure contextual and quality relevance. They can view GAI tools as assistants—or even interns—by validating curated content, then adapting it to meet specific student needs and designing experiential learning activities that GAI cannot fully replicate (Darnell and Gopalkrishnan, 2024; Guha, Grewal and Atlas, 2023). This “teamwork” between educators and GAI tools enables educators to devote more time to higher-order pedagogical tasks, such as mentoring and enhancing interactive classroom experiences. If GAI tools handle the groundwork of structuring and organizing content, educators are then augmented to bring human insight into fostering students' critical thinking (Ratten and Jones, 2023). As generative AI continues to evolve, its role in curriculum design will likely expand, offering new opportunities for faculty to innovate and refine the educational experience.

Deciding the appropriate teaching methodology is important as this influence students' engagement with course content, application of theoretical knowledge to real-world scenarios, and critical thinking skills. Thus, business educators must carefully plan and implement pedagogical methods after designing the curriculum (Xu and Babaian, 2021).To enhance students’ critical thinking skills, educators offer students with in-class exercises involving challenging GAI-generated content, students will be simulated by finding logical inaccuracies and fallacies for GAI-generated contents and trying to make them better (Guha, Grewal and Atlas, 2023; Husain, 2024). By helping students to assess information validity and navigate complex business challenges through these types of exercises, educators improve students’ reasoning skills (Gupta et al., 2024). Gupta et al. (2024) believes that GAI-augmented business educators are capable to upskill and update instructional practices. Their role is now a scenario facilitator of GAI-enhanced education experiences and focus more on empowering students to apply knowledge in practical settings, instead of simply information delivery. Students’ critical thinking, decision-making and problem-solving skills will be of more focus, and this is essential for future business leaders and professionals in an AI-driven world.

GAI tools also contribute significantly to enhancing student engagement. By automating basic knowledge dissemination, educators gain more time for in-depth discussions and mentoring, improving the learning experience—particularly in larger classes. While GAI tools are useful for engagement, they are not replacements

for human educators. Rather, they serve as augmentation tools, facilitating a restructuring of labour within the teaching process. Human educators remain essential as a strategic mentor for contextualizing knowledge, guiding critical thinking, and ensuring meaningful student interaction (Selwyn, 2019). GAI tools are most effective when handling logistical or lower-order cognitive tasks, such as providing quick definitions or summarizing content. When educators leverage GAI insights to design engaging learning activities, and GAI focuses on repetitive and standardized tasks, this division of labour introduces a potential new paradigm in business education. As experiential learning and problem-solving become increasingly valued in business education (Sugarman, 1987), GAI tools provide a unique opportunity to rethink student engagement beyond traditional lecture formats.

GAI tools also streamlined assessment processes. GAI can analyze student responses, identify features of well-written assignments, and provide clear feedback with personalized recommendations (Karadağ, 2023). In the future, educators could collaborate with GAI to develop customized assessments tailored to diverse student needs, even in large courses. This could significantly enhance students' critical thinking and language skills and personalize the assessment experience in fields such as marketing (Krammer, 2023). However, concerns remain. As noted by Ratten and Jones (2023) and Flodén (2024), biases in GAI datasets can influence grading. For example, ChatGPT may exhibit preferences, such as favoring pro-environmental political orientations, that could skew grading outcomes (Bogina et al., 2021). Bias is especially concerning in controversial subjects or areas with conflicting evidence (Cousins, 2023). Additionally, Lim et al. (2023), Thanh et al. (2023), and Flodén (2024) point out that students who understand how GAI or automated scoring systems work may be able to exploit these tools for higher grades or avoid detection through prompt engineering. Therefore, human becomes "Ethical gatekeeper" as oversight is crucial for fairness and addressing nuances that GAI may overlook (Silvestrone and Rubman, 2024). In short, GAI-assisted educators who design, and grade assessments will have more time in focusing on other aspects of the teaching-learning processes and various administrative tasks (Gupta et al., 2024).

Student use of GAI tools during assessments presents another challenge. Although there are AI-detection tools like Turnitin or GPTZero assist educators in identifying GAI-generated content, Perkins et al. (2023) found there is a discrepancy between AI detection results and educators' ability to interpretation and reporting. Flodén (2024) also mentioned it is not 100% reliable for anti-plagiarism systems to detect GAI-generated texts. Thus, educators can reduce the chance of students' misuse of GAI by designing exam questions connected to specific frameworks, topics, or real-life examples discussed in class (Ratten and Jones, 2023; Thanh et al., 2023). Educators can also run assessment questions through GAI tools to determine if it is easy for students to just rely on GAI tools, or independent thought must still be used. Educators also gain insights on how GAI tools answer exam questions thus equip themselves with relevant knowledge to identify GAI-generated responses (Van Slyke, Johnson and Sarabadani, 2023). If institutions can implement proactive measures like GAI literacy training to academic staff, as well as ethical AI use policies to students, it will help with the current challenges in assessments (Perkins et al., 2023).

This study explored the potential of collaboration between business educators and GAI in the four major teaching work processes mentioned previously. Our findings reveal the role of business educators has evolved alongside GAI technologies, like ChatGPT (Table 4). Business and management educators must collaborate with GAI tools which balance academic integrity and advancement in technology. However, Challenges remain even GAI offers definite benefits. For instance, bias in AI-generated content, students' unethical misuse of GAI tools, and unstable performance of AI-detection tools. These highlight the need for cautious and informed GAI implementation in HEIs, also the necessity for faculty training in AI literacy and ethical guidelines.

Table 4: The division of labour between business educators and GAI in handling teaching work processes

Collaboration in	GAI Role	Human Role
Curriculum Design	Content Generator	Quality Controller
Pedagogical Methods	In-class Simulator	Scenerio Faciliator
Student Engagement and Interaction	Lower-order Task Automator	Strategic Mentor
Assessments	Grading and Feedback Streamliner	Ethical Gatekeeper

This study outlines how GAI reshapes AWP and contributes to the discourse of digital transformation and human-GAI collaboration in higher education. According to section 3.1, future research should focus on discipline-specific study, empirical evaluations of teaching work processes at tool-specific level, and in different cultural context. To have a more comprehensive understanding of GAI's impact on academia, more research should also be conducted on researching work processes and institutional administration. GAI is revolutionizing business education. As per Krammer (2023), seeking AI-proof contents is impossible and faculty needs to accept the augmentation by GAI tools within HEIs. It is the responsibility of educators to ensure GAI enhances learning while maintaining educational rigor. Thus, levering GAI effectively to support development of students and pedagogical innovations should be in priority for business educators.

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