

# Generative AI in Higher Education: Educators' Perspectives on Academic Learning and Integrity

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**Abstract:** Generative Artificial Intelligence (Gen AI), exemplified by models such as ChatGPT, has rapidly advanced, becoming a significant force in various sectors, including higher education. ChatGPT, a leading application of Gen AI, utilizes large language models (LLMs) to generate human-like text, providing capabilities that range from answering complex questions to facilitating software development. As these tools become increasingly integrated into academic environments, their impact on teaching and learning processes has become more under focus. However, there are not many studies focusing on the impact of such systems on students' performance and the use of such systems. This study therefore examines the impact of GPT tools on higher education, aiming to address the following research questions: How does the use of GPTs influence the teaching and learning process in higher education? What are the perceived impacts of GPTs on educational practices from university educators' perspective? The research employs a qualitative methodology, incorporating semi-structured interviews with educators from Swedish universities who have integrated GPT into their curricula. Data were transcribed and analysed using OpenAI's Whisper to extract key themes and insights. Data analysis was done through thematic analysis and categorizing the data using codes. The study uncovers a dual impact of GPT on education, while it offers substantial opportunities for enhancing productivity and personalized learning, it also raises significant concerns about academic integrity, over-reliance on AI, and the potential influences on students' soft skills. These findings contribute to the discourse on digital learning by highlighting the need for instructional and constructive integration of AI technologies such as GenAI, in educational settings. In addition, the rise and integration of GPT technology is irreversible, and we must adapt to it rather than return to old ways. Embracing AI's potential while addressing its challenges is essential for progress and innovation in this new era. The study emphasizes the importance of developing clear policies and guidelines to ensure that the benefits of GPT are realized without compromising the integrity of the educational process. As such, this research provides valuable insights for educators, policymakers, and scholars interested in the ethical and effective implementation of AI in higher education.

**Keywords:** Generative AI, ChatGPT, Higher education, Academic integrity, Digital learning

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## 1. Introduction

Artificial Intelligence (AI) has rapidly permeated various societal and educational domains (Alam, 2021), including higher education, and becoming more prominent in various aspects of life (Tlili et al., 2023). Generative Artificial Intelligence (GAI) systems, powered by Large Language Models (LLMs), offer new opportunities for engaging with educational content by generating human-like text that facilitates novel learning experiences (Kasneci et al., 2023; Thorne, 2024). Among the notable advancements are Generative Pre-trained Transformers (GPTs), such as ChatGPT, which have brought transformative changes to educational environments (Hrastinski, 2020) and academic integrity (Sullivan, Kelly, & McLaughlan, 2023). These technologies provide extensive and relevant information and enriching educational practices, when used responsibly (Dempere et al., 2023). These technologies enable innovative methods of teaching, learning, and interaction (Kasneci et al., 2023; Tlili et al., 2023), while enhancing the risks such as dishonesty and potential over-reliance on AI (Sullivan, Kelly, & McLaughlan, 2023). Universities need to explore and adopt new technologies, which fundamentally change long-standing educational methods, although concerns about the changes are understandable and schools failing to embrace these opportunities will find the technologies disruptive (Lucas, 2016).

Recent advancements in Natural Language Processing (NLP) have urged the development of sophisticated LLMs and GAI systems, such as GPTs, which have notably influenced on Knowledge Management (KM) and learning processes across various fields (Aghae, 2024). Digital tools like ChatGPT, Midjourney, Copilot, and Gemini revolutionized learning and teaching by reshaping conventional educational methods (Kurtz et al., 2024; Bahrini et al., 2023). Despite promises of increased accuracy, efficiency, and productivity, GAI tools come with significant challenges (Trust, Whalen & Mouza, 2023). The risk of misinformation and hallucinations highlights the need for cautious implementation and critical use of such AI-based tools. LLMs, while advanced, face difficulties in managing input uncertainty and comprehensive problem-solving which can lead to inaccuracies (Thorne, 2024). Additionally, the algorithm-based mechanism behind AI-generated responses complicates the validation and

reliability of the information, raising concerns about trustworthiness and inherent biases (Bahrini et al., 2023; Dempere et al., 2023).

Kasneji et al. (2023) highlight both students' and teachers' perspectives on the use of ChatGPT in higher education, noting the lack of empirical studies on effective learning strategies with chatbots. The strategic and structured adoption of AI in education has been slower compared to other fields, as many educational institutions initially viewed it with apprehension, rather than a digital tool to be strategically used to support students' self-learning. Instead, some institutions attempted to avoid or abandon its use. While there are many scientific studies on the topic, little focus has been placed on educators' perspectives regarding students' performance and academic integrity. Recent research has focused on automated student assessment, personalized feedback, and generating teaching materials, but there remain significant knowledge gaps and uncertainties in successfully integrating LLMs into educational processes. Teachers play a key role in shaping curricula and assessment methods, making their insights critical to understanding AI's impact on education. Furthermore, the adoption of such technologies is fraught with challenges related to academic integrity and potential misuse, necessitating a careful approach to implementation of such tools in courses (Dempere et al., 2023; Sullivan, Kelly, & McLaughlan, 2023)

This study aims to explore the impact of GPT on students' performance and academic integrity in higher education, as well as its influence on the design of educational programs – necessitating adjustments to curricula, grading methods, and assessment formats in response to GAI. By incorporating educators' perspectives, the study seeks to understand how these tools affect both positive and negative on the learning process and outcomes. The goal is to identify factors that contribute to either improved or diminished academic performance. While prior research shows students use tools like ChatGPT to enhance learning (Kasneji et al., 2023; Dempere et al., 2023), little is known about their impact from educators' perspectives. By centring on educators' viewpoints, we can gain a deeper understanding of how these tools shape the educational environment (Hrastinski, 2020), impact students' performances, and examine how to more strategically integrate these tools into higher education to facilitate optimal usage. In order to fill in this gap, the following research questions were developed: How does the use of GPTs influence the teaching and learning process in higher education? What are the perceived impacts of GPTs on educational practices from university educators' perspective?

The goal is to understand the opportunities and challenges posed by GPT and provide insights that could guide the responsible integration of such technologies into educational practices. The study focuses on teachers' perspectives, with the terms "educator" and "instructor" used interchangeably with "teacher".

## **2. Digital Technology and Generative Artificial Intelligence in Education**

The role of digital technology in education has been transformative, reshaping traditional learning environments and introducing new possibilities and challenges for teaching and learning (Escueta et al., 2017; Raja & Nagasubramani, 2018). The integration of digital technology in education has led to increased accessibility, personalised learning, and enhanced student engagement (Deng & Lin, 2023). However, it also presents challenges, such as the need for educators to adapt to new tools and methodologies (Hrastinski, 2023). Artificial Intelligence (AI) refers to a computer's ability to perform tasks typically associated with human intelligence, such as reasoning, learning, and adapting, although current systems are still limited in their flexibility across broad domains (Deng & Lin, 2023).

Generative AI (GAI) involves systems, like GPT, that generate new content based on learned patterns from large datasets, such as text, images, or code. While it enhances productivity and creativity, it also raises concerns about over-reliance on automated systems (Kasneji et al., 2023). A significant advancement in GAI is enabling machines to understand and generate human-like text based on large datasets, like Generative Pre-Trained Transformer (GPT), which is a type of LLM designed to generate human-like text by predicting and producing language based on vast datasets. It has significantly impacted fields like education and software development (Kasneji et al., 2023). However, concerns about the ethical aspects and the potential for academic dishonesty remain prominent (Sullivan, Kelly, & McLaughlan, 2023; Jin et al., 2024).

ChatGPT, a specific implementation of GPT, enables interactive, human-like dialogues, offering instant responses and feedback. It has found applications in various sectors, including education, where it helps with tasks like writing and instant learning support, though concerns about academic integrity and the overuse of AI-generated content persist (Dempere et al., 2023; Deng & Lin, 2023). GPT models have become increasingly prevalent in higher education, with applications ranging from assisting with essay writing and summarizing texts, to providing

immediate feedback on assignments. The evolving demands of the labour market have made autonomous lifelong learning essential for individuals to remain competitive and adaptable. Lifelong learning approach involves education throughout a person's life, encompassing both formal learning and informal learning (through self-directed study, experiences, and training), which means “learning lasts for life” (Hargreaves, 2004). Lifelong learning is increasingly supported by autonomous, flexible learning formats, such as Generative AI (e.g., GPTs), which allow individuals to engage with personalized, AI-driven educational content at their own pace and according to their specific needs (Rawas, 2024).

While these tools can enhance learning by offering tailored support and developing independent study habits, they also raise concerns about students' reliance on AI and the potential attrition of critical thinking skills (Dempere et al., 2023). The dual nature of GPT's impact—both as a facilitator of learning and as a potential source of academic misconduct—necessitates a careful examination of its role in education. Ratheeswari (2018) writes that teachers must have the knowledge and skills to use new digital tools and resources to help students achieve high academic standards. Furthermore, Conole (2012) states that the use of technologies for academic purposes requires specific skills, which affects the way Learning opportunities are designed and supported, which must provide appropriate support to benefit the potential of technologies. In addition, as discussed by Bergdahl, Nouri, and Fors, (2020), GAI and GPTs enable students to acquire targeted knowledge, while the quality of the information acquisition and its use depends and varies based on students' digital skills.

### **3. Methodology**

This study adopts a qualitative research approach, utilizing semi-structured interviews with university teachers to gain in-depth insights into their experiences and perceptions of digital technologies' impact on higher education. The choice of a qualitative methodology was motivated by the need to explore the nuanced views (Creswell, 2013) of educators, who play a key role in shaping the learning environment. The research was conducted with teachers responsible for various courses in informatics at three Swedish universities. Teachers are central figures in bridging students and education, providing valuable insights into how both the curriculum and students are affected by digital technologies like GPTs, as well as the opportunities and challenges presented in higher education.

Participants were selected using purposive sampling to include educators from various disciplines within informatics. This selection was based on the assumption that course coordinators in informatics would likely have direct experience with GPT tools, either through their own use or through their students' use of these technologies. In-depth-interviews were conducted with five educators, either in person or via video conferencing, using a semi-structured interview guide (developed based on Creswell, 2013). These interviews were recorded with the participants' consent and later transcribed using OpenAI's Whisper tool for analysis. Informed consent was obtained from participants before starting the data collection. The participation was voluntarily, and respondents were given the option to withdraw from the study at any time during the data collection process or skip any questions they were uncomfortable answering. Furthermore, no sensitive or personal data was collected.

Data analysis followed Creswell's iterative, upward spiral model (Creswell, 2013), where the researcher learns through the process. The first step involved organizing the interview data into separate documents to manage the large volume of information. Transcriptions were carefully reviewed alongside the audio recordings to correct any errors, and initial reflections were noted. Thematic analysis was then employed to identify patterns and themes within the collected data. The data was coded, and recurring sub-themes were categorized under broader main themes, as shown in Table 1. This process involved coding the data, grouping the codes into themes, and interpreting these themes within the context of the research questions. The analysis focused on identifying the perceived changes, opportunities, challenges, and effects of GPT on student' performance in higher education, as observed by the instructors.

### **4. Results and Analysis**

Table 1 summarizes the key themes and subthemes from the thematic analysis in this study, providing a clear overview of the main findings related to digital technology and GAI and its impact on higher education. All respondents were lecturers in information systems or systems sciences disciplines, with experience in both on-campus and distance teaching, and used GPTs quite extensively in their teaching, since its emergence.

**Table 1: Key themes and subthemes on digital technology and GAI, and their impact on higher education**

Themes	Subthemes	Description
<b>Changes in Education</b>	Digitalization of Education	The introduction of digital and generative AI tools has transformed teaching methods, student learning, and information access.
	Tailored/ personalized learning	Digital and AI technologies enable personalized learning, tailoring education to individual needs, styles, and pace.
	Autonomous Lifelong Learning	Flexible learning formats utilizing GAI, such as GPTs, require responsible technology use to support autonomous lifelong learning.
	Change of Examination Formats	Course assessment methods should ensure that students' acquired knowledge and performance are original and not directly influenced by the use of GPTs.
<b>Opportunities</b>	Global Knowledge Accessibility	Digital technology with GAI tools, facilitate autonomous access to the global wealth of knowledge and resources.
	Productivity	Opportunities to create texts, summaries, relevant topics and information in the requested context.
	Flexibility and Adaptability	Learning aids to create tasks, exercises, explanations, and provide feedback, allowing a focus on core concepts.
<b>Risks &amp; Challenges</b>	Digital Divide and Unequal Access	Creating new challenges in ensuring equal educational opportunities for all. Negative impact on equality between students with different access to digital tools, basic digital literacy, and digital skills,
	Lack of Social Interaction	Less social interactions affecting students' social development and soft skills, such as collaboration and group learning.
	Teachers' and Students' Adaptability	Adapting to new digital tools and teaching methods, requiring increased training and support to ensure effective teaching in a changing learning environment.
	<b>Students' Performance</b>	Measuring Educational Outcomes
Student-content interaction and knowledge trustworthiness		GAI's enhance interactive learning and student independence. Increasing concerns over unreliable knowledge sources.
Influence on Social Skills		Digital transformation in education and its cognitive and social effects, with some tools boosting abilities while others hinder interpersonal grow.

#### 4.1 Changes in Education

**Digitalization of Education:** The introduction of digital tools and GAI tools in education has transformed teaching methods and the student learning experience and information channels. This change with the use of GAI includes campus and distance learning as well as hybrid classes, and the educational plans to use GPT as part of the curriculums. All respondents agreed that the integration of GPT in education is irreversible, and higher education institutions must adapt, as expressed by Respondent 1: “the genie is out of the bottle” and Respondent 4: “it’s a one-way street”. Respondent 1 emphasized that universities must quickly embrace these changes, referring to the profound impact of GPT when they first encountered it, describing it as the most challenging event in their 22 years of teaching experience. Respondent 5 mentioned that the consensus is clear: “GPT is here to stay”. All respondents acknowledged and affirmed that returning to pre-GPT methods is not an option. Respondent 3 emphasized that while GPT’s integration is essential, universities are still in a transitional phase. They noted the ongoing development of guidelines for GPT usage, including workshops for educators on how to integrate the tool effectively. GPT has revolutionized teaching and learning, making it a critical tool for both campus-based and distance education.

**Tailored/personalized learning:** Digital and AI-based Technologies enable more personalized learning, where Respondent 1 and 2 mentioned that education can be tailored to each student’s needs, learning style, and pace, improving student outcomes and engagement. Its adaptability is seen as another key changes, allowing students to customize their learning experiences and receive personalized educational support. Respondent 1 noted, “I’ll give a concrete example: programming. This is one of the use cases where generative AI might have the most significant impact. Quite a few experts and evaluators believe this too”. Another mentioned, “With the help of ChatGPT, for example, you can tailor your own learning experience. If you’re a student who understands better

with metaphors, you can just ask for metaphors". Three respondents believed that GAI technologies provide customized learning experiences rather than a one-size-fits-all approach, which would lead to a dramatic change in educational settings.

**Autonomous Lifelong Learning:** Changing labour market demands have made lifelong learning a necessity, meaning both formal and informal education continues throughout life, supported by autonomous and flexible learning formats, through digitalisation such as GPTs. As mentioned by two respondents, the accessibility and flexibility of GAI help continuously acquire new skills and knowledge as part of lifelong learning, enabling them to adapt to the rapid technological and industry shifts shaping modern work environments. One respondent stressed the importance of educating students on the "responsible use of GPT", to facilitate their autonomous lifelong learning. With changing labour markets, lifelong learning through flexible formats, including GPTs, make students accountable for their learning, their learning methods, and the channels they use to learn about a new subject.

**Change of Examination Formats:** The results highlight the need to update assessment formats to account for GPT's influence. Oral exams, in-person written tests in controlled environments—referred to as "controlled examinations" or "exams in a controlled environment"—are seen as effective alternatives for assessments. Three respondents emphasized the importance of conducting digital exams in secure environments, such as using Safe Exam Browser (which restricts access to external resources) or invigilated digital or on-paper exams without aids, to prevent the use of any digital tools such as GPTs and ensure equal and fair assessments. Respondent 1 experimented with innovative exam formats even before GPT's arrival, such as film-based submissions and pre-released questions. Respondent 2 has introduced oral defences to verify the authenticity of students' written work. Both respondents noted a shift toward in-class exams, as written assignments have become less reliable due to GPT's influence. Respondent 3 also suggested "traffic light" system to categorize exams based on the likelihood of GPT interference, with red representing high risk (e.g., take-home exams) and green indicating low risk (e.g., in-class exams).

## **4.2 Opportunities**

All respondents expressed that GPT tools offer new opportunities for both teaching and learning, although their opinions differ on which opportunities are most relevant.

**Global Knowledge Accessibility:** All respondents reflected that digital technology has opened doors for students to access a global range of knowledge and resources. They mentioned that students can autonomously access knowledge in various fields and broadening their horizons, using GAI tools. A major advantage highlighted by two respondents was the 24/7 accessibility of GPTs. One mentioned about the expectation of similar tools, which will become increasingly available and powerful, facilitating global knowledge access in an autonomous way. Two respondents mentioned that GPT is viewed as a valuable productivity tool, enhancing efficiency in various domains, particularly in text and task development, by creating activities, exercises, and providing feedback, which saves time for focusing on core concepts in the learning process. Its potential to improve language skills, grammar, and fluency, especially in English, is also noted. Additionally, one respondent mentioned that GPT is valuable for explaining new concepts, demonstrating their applications, and providing examples, exercises, and feedback.

**Productivity:** Technological advances offer new opportunities to create texts, summaries, relevant topics, and information in the desired context. Respondent 4 noted that GPT can serve as a time-saving tool by providing a "starting point" for selecting themes or directions, thereby enhancing productivity. Respondent 2 specifically reflected on practical subjects like programming, highlighting tools such as GitHub Copilot and ChatGPT for their significant impact. They emphasized the importance of teaching students how to use these tools: "We need to teach them how to use GitHub Copilot and ChatGPT. Both offer significant opportunities for learning and productivity." GitHub Copilot is already widely adopted in programming courses: "Currently, we primarily use GitHub Copilot. It is extensively used every semester in all courses with programming elements". GPTs can clarify code, helping students learn a new programming language effectively.

**Flexibility and Adaptability:** By using GPTs, students and teachers benefit from enhanced flexibility in both teaching and learning. Digital technologies have proven to be excellent learning aids for students, as digital tools are now "more or less part of learning" and educational systems. GPT is viewed as a valuable flexible tool with considerable potential to enhance learning flexibility and productivity, when used appropriately. Respondent 5 mentioned that GPT can serve as a good teacher or mentor by confirming a student's knowledge or explaining new concepts. Another noted that GPT can explain concepts and programming codes. Respondent 3 specifically

emphasized that GPT should be seen as a tool for student learning, similar to Grammarly or other digital aids, rather than a substitute for any current components in higher education.

### **4.3 Risks and Challenges**

**Digital Divide and Unequal Access:** Rapid digitalization by development of GAI can impact negatively on equalities between students with different access to cutting edge digital tools, the basic digital literacy, and digital skills, creating new challenges in ensuring equal educational opportunities for all. Respondent 5 reflected that differences in access to premium versions of tools could lead to significant disparities among students. Respondent 1 reflected on some students might have a significant advantage if they use more advanced versions, which could create an "A- and B-group," mentioning, "I'm possibly a bit worried that it can generate a certain laziness" and this may affect segregation of students based on their digital access, skills, and literacy. Two respondents noted the issue of trust, as one mentioned, "the big problem is trust... how do we know that they haven't just generated everything?"

**Lack of Social Interaction:** The result suggests that increased use of GAI tools could impact students' social interactions, potentially affecting their development of cognitive and soft skills, such as collaboration and group learning. A respondent observed and mentioned that different students are using digital tools differently implies varied levels of motivation, which may indirectly affect social learning experiences. Respondents argued that GPT's influence on students' learning abilities, motivation, and social interaction. One mentioned that these depend on the user than the tool itself: "Students who were extremely interested in learning and truly wanted to understand their studies now have a new tool to help with that."

**Teachers' and Students' Adaptability:** Teachers face the challenge of quickly adapting to new digital tools and teaching methods, requiring increased training and support to ensure effective teaching in a changing learning environment (to reduce or fill in the gap for the digital divide). The need for teachers to adapt quickly is emphasized, saying, "It takes knowledge to create knowledge", implying that effective use of GPT requires a deep understanding of how to leverage it properly. Respondent 2 pointed out the necessity for better understanding of digital technologies such as GPT tools among students, stating, "They must actually understand what a transformer is... What does it do?" This highlights a gap in both student and teacher knowledge and forces to learn using new technologies in an appropriate way.

### **4.4 Students' Performance**

**Measuring Educational Outcomes:** New technology enables assessment of students' performance and tracking progress to provide quicker feedback. Respondents expressed challenges of evaluation and measuring educational outcomes and difficulties in assessing GPT's impact on students' performance, as it is still quite new. Concerns were raised about potential effects on creativity and originality, comparing it to children growing up with smartphones: "What will happen to students' creativity? What will happen to their originality? [...] We don't know what will happen with these things. [...] What happens if you give five-year-olds smartphones? We're about to find out." Results suggest learning should be assessed formatively rather than relying solely on summative assessments. However, there was no clear reflection on grading trends, and one respondent noted, "It's hard to judge if grades have changed since the examination formats have changed". Most respondents believed grades have remained stable, particularly when exams are conducted in controlled environments without access to any resources. One also remarked, "You can talk about learning, but how do you measure learning?"

**Student-content interaction and knowledge trustworthiness:** Digital tools, particularly gamified platforms and conversational AI can enhance students' motivation and promote independent learning. However, concerns have arisen about the reliability of knowledge on these GAI sources, as it may not always be scientifically validated. While GPT can clarify concepts, over-reliance may lead to mistakes. Respondents noted that students often use AI-generated content without verifying its accuracy, leading to errors. Respondent 2 reflected on "students just read something quickly and use it, thinking they're learning without checking if it's accurate, creating a risk." Respondent 3 noted: "students can complete assignments without learning because ChatGPT does it for them." Respondent 4 mentioned that students may rely on AI-generated code without understanding it: "I see things in the code that are completely illogical. Why is it written like that? Well, I don't know, Copilot inserted it." Other respondents expressed similar concerns about students submitting incorrect content without proper comprehension.

**Influence on Social Skills:** The digital transformation in education affects students' cognitive and social skills, with some technologies enhancing while others hindering interpersonal skills. Respondent 1 noted that GPT may

reduce creativity if it outsources the creative process, as "requesting a creative response from GPT does not guarantee true creativity". The long-term impact on critical thinking remains unclear, as Respondent 2 stated, "GPTs might impact critical thinking in the long run, but it's possible that it might not". One respondent suggested that creativity may still flourish, as users must engage creatively with GPT tools. Ultimately, the impact on skills like critical thinking depends on how students use GPT, potentially widening gaps between more and less creative individuals.

## **5. Discussion**

The integration of GPT into higher education offers both opportunities and challenges, as shown by this and earlier studies. The findings here emphasized that schools must adopt new technologies like GPT to avoid falling behind, continuing the trend of slow adaptation (Lucas, 2016; Kasneci et al., 2023; Alam, 2021). Based on the result of this study, educators agree that GPT's role in education is inevitable, reflecting broader trends in AI integration (Tlili et al., 2023; Kasneci et al., 2023). Respondents in this study emphasized the need to rethink how education is delivered and assessed to prevent AI misuse, especially with exams, where oral or in-person assessments might help maintain academic integrity (Sullivan, Kelly, & McLaughlan, 2023; Dempere et al., 2023).

GPT tools like ChatGPT, Copilot, and Gemini, revolutionized teaching by enabling personalized learning. These tools allow tailored support for students, confirming previous claims that AI can revolutionize teaching by promoting accessibility and engagement (Kasneci et al., 2023; Bahrini et al., 2023) and providing feedback. The study results confirm that GPT's 24/7 availability and adaptability underscore its role in promoting flexibility and personalized learning, in line with Escueta et al. (2017) and Raja & Nagasubramani (2018), who stated that increased accessibility and engagement were facilitated by digital technologies. However, concerns about students over-relying on AI, bypassing learning, and unequal access to premium tools were raised. This reflects broader issues of digital inequality and risks of misinformation from AI (Trust, Whalen & Mouza, 2023; Thorne, 2024).

This study result highlighted the need to update examination formats, such as shifting toward oral exams and in-person assessments, to reduce the risks of AI misuse, academic dishonesty, and over-reliance on AI, as well as to address concerns about academic integrity (Sullivan, Kelly, & McLaughlan, 2023). Although grades in controlled environments remain stable, measuring learning progress and grading assignments outside such settings has become more complex. The findings emphasize the importance of adapting teaching methods and developing educators' skills to teach students using and integrating GPTs responsibly (Ratheeswari, 2018; Hrastinski, 2023). However, the study found no direct evidence of GPT's impact on assessments and grading.

While AI offers valuable educational opportunities, its potential to undermine academic honesty cannot be ignored and should be carefully considered by educational institutions (Dempere et al., 2023; Thorne, 2024). Some respondents expressed concerns about AI's impact on students' soft skills (Aghae, 2024; Sullivan, Kelly, & McLaughlan, 2023), while others believed this depends on individual motivation, digital skills, and the use of digital tools (aligns with Dempere et al., 2023; Bergdahl, Nouri, & Fors, 2020). All respondents mentioned that these tools assist in developing tasks, exercises, feedback and learning opportunities, allowing more time to concentrate on core concepts and knowledge-centred instruction and learning.

The study emphasizes the need for educators to quickly adapt to digital tools like GPT, a process still in its early stages. Teachers must build skills to effectively integrate these technologies (Ratheeswari, 2018; Hrastinski, 2023), echoing broader challenges in adopting new digital tools (Hrastinski, 2020). The results show that universities are still developing guidelines for responsible GPT use, highlighting the ongoing knowledge gap among educators (Conole, 2012). However, the ongoing development of guidelines for GPT usage, including workshops for educators and students on how to integrate the tool effectively, is suggested.

## **6. Concluding Remarks**

This study contributes to the growing body of literature on GAI in education by providing empirical insights into how the use of GPTs influence the teaching and learning process in higher education and what are the perceived impacts of GPTs on educational practices from university educators' perspective. By focusing on educators' perspectives, the study highlights the complexities of integrating GAI tools into educational settings, emphasizing the need for a balanced approach that maximizes benefits while addressing potential challenges. Overall, the study reveals that while GPTs offer numerous opportunities for enhancing education, it also presents significant challenges and risks that must be managed through thoughtful implementation, clear guidelines, and

ongoing investigation to teach students using digital technologies responsibly and the importance of academic learning and integrity.

Respondents reflect on a shift towards controlled examinations or exams in a controlled environment and more formative assessment and new strategies, to be less vulnerable to GAI-generated responses. However, the long-term impact of GPT on students' performance in higher education remains uncertain, with instructors divided on whether the benefits outweigh the risks. Respondents view GPT as a transformative and flexible tool that enables personalized and efficient lifelong learning (in line with Rawas, 2024), while there are concerns about its potential to undermine academic standards and the integrity of educational institutions.

To harness the potential of GPT while addressing its challenges, it is recommended that educational institutions develop clear guidelines, workshops, and learning opportunities for both educators and students on the proper use of such digital technologies in academia. Additionally, there should be a focus on teaching students critical thinking skills and the ethical use of any digital technology to help them navigate in learning environments autonomously and effectively. Therefore, it is crucial to educate students about the benefits and risks instead of banning digital outright.

Future research should explore the long-term effects of GPT on students' learning outcomes and performances, and the sustainability of GAI-driven educational practices. Further studies could also investigate the effectiveness of different assessment strategies in the context of AI tools, helping to identify best practices for evaluating student performance in an era of advanced educational and digital technologies.

## **Acknowledgements**

This paper is based on thesis work conducted within the Information Systems program. We would like to extend our appreciation to all the respondents who shared their insights and innovative applications of GPTs in higher education, participating in this interview study. Their contributions were invaluable in shaping the findings and scientific outcomes of this research. Special thanks to Björn Svensson and Thashmee Karunaratne for their support, positivity, and valuable input in this research process.

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