



The use of ChatGPT in the study of economics: a SWOT analysis

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Abstract

ChatGPT is changing the way people learn and study. In this paper, we identify, analyse and discuss the advantages, disadvantages, opportunities, and threats of using ChatGPT in higher education institutions, specifically in studying economics. Based on interviews with university students from Slovenia, we found that ChatGPT can improve the learning experience. However, the results also show that the use of ChatGPT in economics has disadvantages and threats, which students and professors should be aware of.

Keywords: artificial intelligence, ChatGPT, economics, learning, studying, SWOT

1. Introduction

The use of artificial intelligence (AI) in learning is not an entirely new topic. Research on the application of AI in education dates back some 30 years, since the founding of the International AIED Society (IAIED) (Zawacki-Richter et al., 2019). Technological advances in computing technologies have driven the development of AI and prompted its use in various sectors, including education, transforming the working and learning experience (Chen et al., 2020). With the release of ChatGPT, a Generative Pre-trained Transformer, in November 2022 by OpenAI, the topic of artificial intelligence and its use in education has gained renewed momentum. The uptake of ChatGPT has been rapid and immense. Within two months of its launch, it recorded over 100 million active users, making ChatGPT the “fastest growing user base” (Hu, 2023). The rapid and massive spread of ChatGPT has impacted almost all fields and subjects of study, sparking a debate on the impact of ChatGPT in education and highlighting the advantages and disadvantages of its use.


Our paper is a contribution to the knowledge on the use of ChatGPT in education in general and in higher education in particular, focusing on the study of economics. This paper is divided into five sections. The introduction is followed by a literature review of the advantages, disadvantages, opportunities and threats (a SWOT analysis) of using ChatGPT in education and a literature review of the use of ChatGPT among students to date. We then present the methods used in this paper, followed by the results and discussion.

2. Literature review

With the introduction of ChatGPT, numerous authors have begun to research this topic, initially focusing on the use of ChatGPT by students (and/or lecturers) in various fields of study and disciplines. Crompton and Burke's (2023) systematic review of artificial intelligence (AI) in higher education shows that there is a strong focus on the undergraduate students when conducting these studies. Sáiz-Manzanares et al. (2023) surveyed undergraduate and postgraduate students on their satisfaction with using a chatbot developed by faculty. The authors concluded that, overall, students were satisfied with the use of the chatbot, but Master's students used it more frequently than Bachelor's students, suggesting that different levels of prior (technological) knowledge might play an important role in the application and use of chatbots in learning. The study by Strzelecki (2023) shows that students find ChatGPT entertaining and enjoyable and are willing to use it in teaching. While students are more likely to get used to new technologies, teachers are more reluctant and express more concern about the possible misuse of ChatGPT. Chan and Lee (2023) conducted a survey to investigate the differences in generative AI use between Generation Z students and Generation X and Y teachers. The results show that

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Generation Z students are more likely to use AI technology such as ChatGPT than Generation X and Y teachers. The latter expressed concern about the ethical implications, overreliance and emphasised the need for formal guidelines or policies to ensure responsible use, while the former was optimistic about improved efficiency, productivity and personalised learning.

Shoufan (2023) also focuses on students to provide a better understanding of the impact of ChatGPT on education. Based on a survey of 56 senior students who used ChatGPT prior to responding to the questionnaire, the author finds that students have an overall positive perception of ChatGPT. Most students feel that ChatGPT can be useful for learning if one knows how to formulate appropriate prompts to use it, which is not always easy. Also, students feel that this platform can jeopardise future jobs and is vulnerable to malicious use or manipulation. Nevertheless, students are overall very interested and motivated by ChatGPT. Similarly, Firat (2023) analysed the perceptions of seven academics and fourteen PhD students. The author found 9 main themes on the integration of ChatGPT and AI in education. The respondents believe that ChatGPT can change the role of educators, reduce their workload and support their role as mentors. Moreover, this technology has the potential to improve student engagement, knowledge retention and student achievement. On the other hand, it raises concerns about traditional knowledge assessment and testing. Digital literacy is another challenge in integrating AI into education. The findings show that there is an urgent need to develop an appropriate framework to effectively integrate these technologies into the educational process.

Some authors have summarised the implications of this new technological advance in a so-called SWOT analysis. SWOT stands for strengths, weaknesses, opportunities and threats. A SWOT analysis is an important strategic planning tool used by companies (Benzaghta et al., 2021). While SWOT analysis is usually used in business, many researchers use it to highlight the positive and negative aspects of various issues, both internal and external. Since it is a popular method for highlighting the impacts and features presented, we can use it to present the advantages and disadvantages of ChatGPT in education in general and in the study of economics in particular.

A comprehensive SWOT analysis of ChatGPT is presented by Farrokhnia et al. (2023). Based on the existing literature review, the authors have highlighted the strengths, weaknesses, opportunities and threats of the new technology. As strengths, the authors highlight ChatGPT's ability to generate plausible and conversational answers to users' questions, the chatbot's self-learning capabilities and its ability to provide personalised answers in real time. Similar strengths are highlighted in a SWOT analysis by Zhu et al. (2023), adding ChatGPT's ability to create human-like content (which is often indistinguishable from human writing). The authors also note that ChatGPT provides expert knowledge, solutions or guidance for complex tasks and can provide feedback on task performance. The authors believe that the potential of ChatGPT should also be used in education. With the strengths presented, there are many opportunities for the use of ChatGPT. According to Farrokhnia et al. (2023), the chatbot seems to be a valuable ally for the higher education sector in making information more accessible by providing a personalised learning experience, offering the possibility of complex learning and knowledge assessment, but moreover, ChatGPT has the potential to increase students' critical thinking skills. Zhu et al (2023) state that the opportunities of ChatGPT lie in the increasing demand for personalised, lifelong, online and distance learning, which can also be less costly. For university students, Kasneci et al. (2023) note that large language models help with research and writing, the development of critical thinking and problem-solving skills, the development of research skills and a faster understanding of different topics. They are also helpful in group situations. At the same time, ChatGPT can reduce the workload of teachers. It can and could be used for lesson planning, course material preparation, language learning or translation, research, writing, professional development to improve lecturers' teaching methods, assessment and evaluation, and learning about challenges of AI application in studies (see Zhu et al., 2023; Kasneci et al., 2023; Kwan Lo, 2023; Rahman & Watanobe, 2023). Kasneci et al. (2023) note that many researchers have already used ChatGPT to help them teach and deliver learning materials.

On the other hand, this new technology also brings weaknesses and dangers. Among the weaknesses of ChatGPT is that it is not able to effectively assess the credibility and truthfulness of the answers given (Farrokhnia et al., 2023), as ChatGPT results may contain fake or inaccurate information, e.g., fake sources and citations (Zhu et al., 2023) and limited data on events after 2021 (Farrokhnia et al., 2023). The chatbot is therefore often unreliable and needs to be fact-checked (Kwan Lo, 2023). In addition, the chatbot's understanding of things and concepts is superficial. In other words, it lacks a deeper understanding of the outputs provided (Farrokhnia et al., 2023; Zhu et al., 2023). Both Farrokhnia et al. (2023) and Zhu et al. (2023) emphasise in their studies that GPT lacks higher order thinking and critical thinking skills and can also be biased or discriminatory. However, Kwan Lo (2023) explains that the performance of the chatbot varies in different subjects, adding that some studies have found the chatbot to be exceptionally good at critical thinking and higher-order thinking in certain subjects, including economics. In this vein, Rudolph et al. (2023) add that ChatGPT should not replace content creation but rather accompany it to support critical thinking and skill development. Fear of a decline in critical thinking and cognitive skills is a threat mentioned by Farrokhnia et al. (2023). The current research points to several other threats to the introduction of ChatGPT in education. First, the introduction of ChatGPT may threaten academic integrity and raises many ethical issues, especially related to cheating and plagiarism (Farrokhnia et al., 2023; Zhu et al., 2023), which are even more pronounced in online examinations (Susnjak, 2023). The development of generative AI has led to AI and human-generated content becoming so similar that it is increasingly difficult to distinguish between the two (Kasneci et al, 2023).

The fear of a negative impact on academic integrity is also highlighted by Okaibedi Eke (2023). The author states that the lack of responsible use, rules and guidelines to regulate negative impact, and the lack of guidance on how to cite or acknowledge the use of ChatGPT in written content is problematic, especially since higher education institutions still lack tools to adequately detect plagiarism through the use of AI. A global study by UNESCO (2023) concludes that despite the threat presented, less than 10% of 450 schools and universities have policies and formal guidance on using generative AI in education. Secondly, some authors point out the data and security concerns that have not been taken into account (Zhu et al., 2023; Kasneci et al., 2023; Rahman & Watanobe, 2023). Furthermore, chatbots can perpetuate discrimination and injustice against certain groups, even in education, due to trained data (Farrokhnia et al., 2023). Many researchers believe that another threat lies in the uneven level of technological knowledge, which deprives some of the benefits of ChatGPT (Zhu et al., 2023) and lack of expertise to effectively integrate this technology into the educational process (Kasneci et al., 2023). Finally, Rahman and Watanobe (2023) state that if students and researchers rely too heavily on generative AI and ChatGPT, it can have a very negative impact on education and research. Heavy reliance can also lead to a decline in critical thinking and problem-solving skills.

Opinions on the introduction of ChatGPT in education are divided. Some authors welcome this invention with open arms, stating that it will become an integral part of our daily lives and learning, just like computers, while others point out the numerous challenges that the introduction of this technology in education is likely to bring (Shoufan, 2023). Some authors have explored the use of ChatGPT for the study of economics in particular. Pittner and Romih (2023) conducted a survey of economics and computer science students, which revealed an urgent need to promote critical thinking and responsible use of ChatGPT in the classroom. Wenzlaff and Spaeth (2022) tested ChatGPT's responses in relation to finance and concluded that while ChatGPT had difficulty explaining or misunderstanding certain financial concepts, it also made its limitations clear to the user. While asking the right questions can lead to correct answers, these authors also raise the issue of authorship and ethics in research and writing. Alshater (2023), on the other hand, emphasises that ChatGPT has great potential to improve academic research, especially in the fields of economics and finance. The author highlights some important applications of ChatGPT in economics and finance, including data analysis and interpretation, modelling and simulation, communication and presentation, and support on decision-making. We conclude the literature review with summaries of the authors' findings in Table 1.

Table 1. Literature review summary

Authors	Research objectives	Method	Sample	Key findings
Alshater (2023)	Exploring the potential of AI in enhancing academic performance using the example of economics and finance.	Case study approach	/	ChatGPT possesses the ability to generate human-like content, analyse and interpret data and generate simulations or scenarios.
Chan, & Lee (2023)	Exploring experiences, perceptions, concerns and intentions of Gen Z students and Gen X and Gen Y teachers regarding the use of GenAI in higher education.	Online survey analysis	583 participants (399 Gen Z students and 184 Gen X/Y teachers)	Students are optimistic about potential benefits of GenAI.
Chen et al. (2023)	Assessing the impact of AI on education.	Literature review	250 articles	AI has already been used in education. It offers students personalised learning. Teachers may benefit from greater effectiveness and efficiency, increasing instructional quality.
Crompton, & Burke (2023)	Providing a systematic review examining AIED in higher education up to the end of 2022. A systematic review of AIED in higher education to the end of 2022.	Systematic literature review using PRISMA principles and protocol	138 articles	In AIED research in higher education, undergraduate students were the most studied students (72%), the most common subject domain was language learning. ChatGPT's strengths include generation of plausible answers, self-improving abilities, personalised and real-time responses.
Farrokhnia et al. (2023)	Conducting a comprehensive overview on available literature on ChatGPT in education using SWOT framework.	SWOT analysis based on available scientific literature	/	

Firat (2023)	Investigating the impact of ChatGPT on students and universities.	Thematic content analysis of responses	Seven scholars and fourteen PhD students	<p>The nine key themes identified are the following: “The changing role of educators”, “Personalised learning”, “Impact on assessment and evaluation”, “Digital literacy and AI integration”, “Ethical and social considerations”, “Evolution of learning and education systems”, “Future of work and employability”, “AI as an extension of human brain” and “The importance of human-specific features”. LLM opportunities lie in creating educational content, improving student interaction and engagement, and providing personalised learning experiences. ChatGPT’s performance varies across subject domains but is outstanding in the field of economics. ChatGPT’s opportunities include personalised feedback, accessibility, interactive conversation, lesson preparation, evaluation and new methods of teaching. ChatGPT’S strengths include language understanding, human-like conversation, flexibility, speed, cost-effectiveness, logic and well-organised approach, neutrality on topics, awareness of its ignorance. Most students have already used ChatGPT. They primarily use it during their free time for gaining ideas and information. They are inclined to ChatGPT’s use at home, but not during class. Still, results show there is a strong need for increase in critical thinking and responsible use of ChatGPT in education. There is a positive correlation between</p>
Kasneci et al. (2023)	Presenting potential benefits and challenges of large language model application in education.	Commentary	/	
Lo (2023)	Enriching understanding of ChatGPT’s capabilities.	Literature review	50 articles	
Rahman, & Watanobe (2023)	Exploring opportunities, challenges, threats and strategies of using ChatGPT in education and research.	Survey analysis	Undergraduate, Master’s and second-year Doctoral students	
Rudolph et al. (2023)	Exploring ChatGPT’s impact on higher education.	SWOT analysis based on literature review	2 peer-reviewed articles and 8 preprints	
Pittner, & Romih (2023)	Exploring the usage of ChatGPT between students of economics and technology and computer sciences and helping higher education policymakers in taking appropriate action.	Survey analysis	268 students of economics and computer sciences	
Sáiz-Manzanares et al. (2023)	Analysing students’ use and perceptions of chatbot, and its	Mixed research methodology	57 university	

	implications on education regarding self-regulation and learning.	(quantitative and qualitative study approach)	students (42 undergraduate and 15 master's students)	prior knowledge and student learning outcomes.
Strzelecki (2023)	Developing a model that examines predictors of ChatGPT adoption and use among higher education students.	Partial Least Squares Structural Equation Modelling (PLS-SEM)	534 students	Results show students are comfortable adopting new technologies.
Zhu et al. (2023)	Providing a SWOT analysis of ChatGPT and proposing how to properly integrate it into teaching and learning practice.	SWOT analysis based on literature review and ChatGPT use	/	ChatGPT's strengths include generation of plausible and human-like responses, providing expert solutions and guidance for complex tasks, creating human-like content, evaluating task performance, and offering feedback. AI generated content is very similar to human written content, but ChatGPT often struggles to explain financial concepts correctly. However, it clearly points out its limitations. Asking the right questions can lead to correct answers, but using ChatGPT in academia raises some ethical issues.
Wenzlaff, & Spaeth (2022)	Investigating the accuracy of ChatGPT-generated responses to show the impact of AI on academia.	Embedded research of AI	3 topics ("Crowdfunding, "Alternative Finance" and "Community Finance")	

Source: Author's analysis

3. Methods

An interview method was used to analyse students' views on ChatGPT and its use in the study of economics. Similarly, Limna et al. (2023) also conducted interviews to investigate perceptions of ChatGPT use in education among students and/or teachers.

We interviewed 15 students (7 male and 8 female) from all degree programmes at the Faculty of Economics and Business University of Maribor, between 3 August 2023 and 17 August 2023. We conducted semi-structured interviews with prepared open-ended questions based on aspects of analysis from SWOT.

We prepared the following guiding questions:

1. In your opinion, what are the advantages of using ChatGPT for studying economics?
2. In your opinion, what are the disadvantages of using ChatGPT for studying economics?
3. In your opinion, what are the opportunities of using ChatGPT for studying economics?
4. In your opinion, what are the threats of using ChatGPT for studying economics?

We have analysed the answers and divided them into corresponding groups – strengths, weaknesses, opportunities and threats.

4. Results

In Table 2, we provide the SWOT analysis based on the literature review, which is later complemented with our own findings presented in this section.

Table 2. A SWOT analysis – ChatGPT's use in education, based on literature review

	Positive Strengths	Negative Weaknesses
Internal	<ol style="list-style-type: none"> Generates plausible and conversational (human-like) responses. Has self-learning capabilities. Provides real time, personalised responses. Provides expert knowledge, solutions and guidance for complex tasks (offers task simplification). Gives feedback on (task) performance. Analyses and interprets data. <p>In the study of economics: Exhibits some level of higher-order and critical thinking skills. It possesses the ability to analyse large amounts of data, modelling, and simulation.</p>	<ol style="list-style-type: none"> Provides false or fabricated information and is unable to critically assess the credibility of its outputs. Has no data on events after 2021. Lacks higher-order and critical thinking skills. Is sometimes biased and may discriminate. Lacks deeper understanding of topics. <p>In the study of economics: Is unable to deeply understand complex economic topics and cannot make conceptual links between them.</p>
External	<p>Opportunities</p> <ol style="list-style-type: none"> Making information more accessible. Providing personalised, lifelong, online or remote and inexpensive learning. Potential to increase students' critical thinking and problem-solving skills. Possibility of complex learning and knowledge assessment. Assistance in research and writing and increasing the development of these skills. Decreasing teacher workload (lesson planning, course material development, professional development...). <p>In the study of economics: Encourage students to engage in depth with simple and more complex economic perspectives and promote critical evaluation of problems and their solutions.</p>	<p>Threats</p> <ol style="list-style-type: none"> Overreliance on its help and consequential diminishing of critical thinking, problem-solving and cognitive skills. Threats to academic integrity, mainly with usage for cheating and plagiarism. Lack of appropriate rules, policies, and guidelines for its use. Perpetuation of discrimination and unfairness towards certain groups. Unequal level of technological knowledge among students and teachers. Lack of expertise for adequate integration in education. <p>In the study of economics: Undermining existing ways of exploring more theoretical economic topics (for example, seminar papers).</p>

Source: Author's analysis

Analysing the interviews, students highlighted the following regarding the use of ChatGPT in study of economics (Table 3):

Table 1: A SWOT analysis – ChatGPT use in study of economics based on interviews with students

	Positive Strengths	Negative Weaknesses
Internal	<ol style="list-style-type: none"> Answers questions in real time and is always available to everyone free of charge. Has access to a large amount of data. Helps with writing term papers, brainstorming, collecting ideas, creating outlines and frameworks. Is useful for first contact with a particular subject (ChatGPT is good at explaining general concepts). Provides explanations of basic terms, definitions and concepts. Good starting point for exploring a selected problem. Helps to create texts or documents, e.g. emails or business documents (provides templates). Analyses or translates texts or scientific papers. Translates terminology or organisation names, especially if corresponding translations are difficult to find in the national language. Assists with source searching (although this requires fact-checking). Assists in the preparation of shorter notes. 	<ol style="list-style-type: none"> Cannot answer all our questions, especially more complex topics. Poor explanations of more complex topics or details; unreliable in giving details, uses correct terminology but wrong conclusions. Provides false, fabricated or biased information, including fictitious sources and links; requires fact-checking and is an unreliable source of information. Does not cite sources; its outputs are therefore questionable and cannot be used in papers. Can give many people the same answers to similar questions – generalisation. Does not have access to real-time and up-to-date data (after 2021), which is crucial for the study of economics. Gives ambiguous or contradictory answers to the same question (e.g. in econometrics). Less sophisticated answers in the Slovenian language.

	10. Provides different views on selected topics (pros and cons).	9. Data privacy concerns (possibility of data being used for writing papers or researching being stolen).
	11. Time optimization (for example providing Stata codes).	
	12. Warns when it cannot give an answer (lack of knowledge or expertise) and that credible search engines (JSTOR, Web of Science, Google Scholar...) should be used for scientific studies.	
External	Opportunities	Threats
	1. Contextual translation and/or summary of materials.	1. Possibility of jailbreaking for sensitive economic issues (e.g., tax fraud...).
	2. Help with summaries and note-taking.	2. Copyright and authorship issues.
	3. Increased student productivity and efficiency.	3. Plagiarism and cheating.
	4. Personalised learning with 24-hour availability – opportunity to become student tutors.	4. Decline in students' cognitive skills, problem solving skills, creativity and research skills.
	5. Faster and more efficient learning.	5. Reduction in knowledge required and acquired by students; increasing 'laziness' of students.
	6. Elimination of routine tasks (e.g., finding errors in data sets).	6. Lack of technological knowledge and requirements for good prompting skills – wrong prompts can lead to wrong answers.
	7. New identity of higher education – shift from memorisation of information to logic and understanding of information and topics; change in curricula and assessment methods.	7. Overreliance.
	8. Data analysis and help with data interpretation.	8. Irresponsible use of ChatGPT and its outputs.
	9. Encouraging creativity by offering additional topics to explore.	9. Requires caution on topics that are not general but more complex. May provide faulty reasoning.
	10. Offering pros and cons on the content of academic papers.	10. Integration of a particular way of thinking into the (algorithm-based) answers and consequent loss of plurality of economic thought.
	11. "Drive-in library" – offering exactly the information you are looking for, anywhere, anytime and in the shortest possible time.	11. Inability to critically evaluate ChatGPT's outputs.

Source: Author's analysis

The results show that many students emphasise the usability of ChatGPT as a personal home learning tool, i.e. they see advantages in using it for themselves, but not as a tool that does the learning for them or in their place. Similar to Limna et al. (2023), our respondents also valued ChatGPT's ability to answer questions outside of regular class hours. Many students felt that ChatGPT could play an important role as an always-available tutor for personalised learning. They were a little more reluctant to use it for their regular study requirements. However, it can help with brainstorming, developing outlines or frameworks, writing texts or documents, and analysing and translating texts or papers. ChatGPT offers valuable insights into general concepts and is therefore a good tool for first contact with a new topic. It is important to note that it does not provide accurate information on the details or more complex topics, as it lacks a deeper understanding of the concepts and topics. Although it has the capacity to provide different views and arguments, there is always a risk that these results are either biased or inaccurate, a concern that was also shared by the respondents of Limna et al.'s (2023) study. ChatGPT has long been known to produce false or fictitious information and sources, and students are aware of this. Nevertheless, they see source finding as one of ChatGPT's many strengths. The students themselves see an overreliance on this technology and its misuse as a threat to education and especially the study of economics. Another disadvantage of the chatbot is that it will not be able to access the most up-to-date data in real-time after 2021, as economics is a subject area that requires the latest information. But even for information that ChatGPT can access, one needs to know how to provide the necessary inputs to get good results. Using ChatGPT therefore requires not only good technological knowledge, otherwise the information provided by ChatGPT could be wrong, but also a good general knowledge of the subject, so that one can critically evaluate the results. ChatGPT has the potential to become the next "upscale" Google, a kind of "drive-in library" for all information, as one of the students put it, where we will be able to access any specific information, we need in real-time, very quickly and whenever we need it. Many students believe that ChatGPT has the potential to increase their productivity if used properly as a complementary tool to their studies, e.g. for note-taking, summaries, definitions or even data analysis, which can lead to time optimisation. However, for a given segment, its use could lead to laziness, a decline in creativity, cognitive skills, problem-solving skills and research skills, and encourage students to complete coursework more quickly without delving deeper into the subject matter, which could lead to automation of course completion and a consequent erosion of acquired skills and knowledge. In addition, ChatGPT outputs are based on an algorithm that may produce results that conform to a particular way of thinking, which, combined with a lack of critical evaluation of its outputs and overreliance, could lead to a loss of plurality in economic thought. This calls for responsible use of ChatGPT and similar AI-based tools in higher education.

5. Discussion and conclusion

In this paper, we conducted a SWOT analysis on ChatGPT use in education, first based on a comprehensive literature review for its use in education in general, with a few aspects of its use in economics in particular, and later based on interviews with students of Faculty of Economics and Business, University of Maribor, for ChatGPT use in study of economics. Results show students are aware of many advantages and disadvantages of ChatGPT use in the study of economics and point out its many opportunities and threats. The silver lining of all our interviews was the topic of credibility of ChatGPT's outputs, ethics and impacts of this technology's adoption on our intellectual skills. While students find this to be a valuable tool for gaining information, looking for explanations and initial insights into general topics or concepts, time optimization and raising productivity, they are wary of provided information and have a tendency to fact-check ChatGPT's outputs. All students believe that the chatbot often gives incorrect outputs, especially regarding more complex topics. Nonetheless, they are favourable to its use as it brings many opportunities for enhancing their studies. By offering the exact information we are looking for, anytime, anywhere, in a very short time, ChatGPT has the potential of becoming the next Google. It could play the role of a tutor, available to students all the time, helping them understand the concepts they are studying outside the lecture theatres and even in the absence of their professors. It has the potential of helping advance research, especially data analysis and interpretation. At the same time, ChatGPT is changing traditional identity of the education system – if the opportunity is well seized, we could see a shift from focus on memorising a lot of information and learning by heart to a focus on logical thinking and understanding the covered concepts and topics. This could enhance students' cognitive skills, creativity, problem-solving skills, and research skills. However, this is not a given, since an overreliance on this technology may have completely opposite skills. Students' problem-solving, research and higher-order thinking skills may start to gradually decrease, as well as their creativity. It is important to note that these are the qualities that make a good economist. Without these competencies, higher education produces individuals with certificates rather than experts in their fields. If students rely too heavily on what ChatGPT has to offer, we could witness a reduction in the knowledge students will acquire. Taking into consideration the impact on academic integrity, clear guidelines and policies are needed to ensure a responsible use of this technology in the higher education sector, however, its use should not be prohibited. Students should learn about ChatGPT, its advantages and disadvantages and how to use it. Teachers play an important role here, because they are the ones who can present the chatbot to students in a way that also and above all highlights its weaknesses and threats, thereby strengthening students' critical thinking and ensuring responsible use.

Our study contributes to the growing literature on the use of ChatGPT in higher education, but with a focus on its use in studying economics. Our paper has its limitations. When conducting interviews, we limited our focus to economics students studying at the Faculty of Economics and Business, University of Maribor, and interviewed 15 students. In the future, this research could be extended to other study areas, also increasing the sample size. It would be worthwhile to analyse the perspectives of teachers as well. An international comparison could also be an extension of our paper.

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