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STUDYING IT EDUCATORS' SATISFACTION WITH USING MICROSOFT COPILOT CHAT TO PERFORM PROFESSIONAL TASKS

Abstract. This study aims to examine IT educators' opinions on using Microsoft Copilot Chat for their professional tasks. The significance of this research lies in the increasing influence of generative AI technologies on learning and the necessity to evaluate their feasibility. The study employs an expert survey method based on a rating scale. 18 experts participated in it. The results indicate varying levels of satisfaction among experts with Microsoft Copilot Chat responses depending on the type of task. The highest-rated tasks were Trivia on a certain topic (4.67), unit test generation (4.50), optimise code (4.44), creating the content for slides on a certain topic (4.44), and creating a comparative table between different items (4.27). The tasks with the lowest ratings were creation of a logo for the conference (3.22), grading essays based on rubrics (3.17), identifying a logical fallacy in a particular article (3.00), convert the text in the image to a format that I can copy and paste (2.88), and creating a mind map to illustrate concepts (2.70). Therefore, using Microsoft Copilot Chat for these tasks with low ratings is not currently recommended. We used the SPSS Statistics suite to calculate Cronbach's Alpha and Cronbach's Alpha Based on Standardised Items. Based on the analysis of the experts' responses, ratings were collected for each professional task for which a prompt was provided. The study's practical significance lies in demonstrating to educators the capabilities of Microsoft Copilot Chat in performing their routine professional tasks. It has been particularly effective in several areas, including: administrative tasks (writing speeches, planning routes), assessment (developing tests, tasks for formative and summative assessment), communication (preparing information materials), lesson planning (generating ideas, creating graphic materials), programming assistance (explaining and optimising code), scientific activities (creating bibliographies, analysing articles), and others (e.g. playing intellectual games on the relevant topic). Future research opportunities are proposed, including the development of advanced training programs for IT educators on integrating AI into their professional practices and an examination of the effectiveness of these programs.

Keywords: Microsoft Copilot Chat; IT educators; improving IT education; professional activity.

1. INTRODUCTION

The problem statements. Discussions about the use of AI chatbots in education are ongoing. Some educators and scientists are convinced that AI chatbots that generate text and images are convenient assistants in their professional activities [1]. Certain people believe that responses generated by AI chatbots are unreliable, biased, and inaccurate [2]. Most scientific studies on the impact of AI chats for educational purposes indicate that educators are cautious about the widespread use of generative AI technologies in education.

Meanwhile, the capabilities of AI chats are evolving and improving. AI chats are becoming more sophisticated thanks to user feedback [3]. Therefore, the opinions and behaviour of educators may change as new information is obtained, and new research is conducted and disseminated regarding the use of AI chats in education.

Analysis of recent studies and publications. Recent research has a growing focus on the impact of generative artificial intelligence on education. Educators particularly value the capabilities of ChatGPT for creating educational materials, developing test tasks, and providing instant feedback, all of which contribute to enhanced efficiency in teaching and learning [4] - [6]. However, research reveals that educators hold mixed feelings about using artificial intelligence in education. This highlights the need to explore further the benefits and challenges of integrating such technologies into educational settings [7].

The opinions of IT professionals are crucial when deciding whether or not to adopt generative AI technology in education. IT lecturers tend to be more critical of using AI in professional activities, as they are also leaders in applying IT technologies, especially AI. Therefore, other educators can rely on their insights as IT professionals evaluate AI technologies with a level of expertise that enhances their credibility.

The research goal. We aimed to explore the opinions of IT educators on using Microsoft Copilot Chat to assist with their professional tasks. Specifically, we formulated the following research questions:

RQ1: Can Microsoft Copilot Chat be utilised to perform professional tasks for educators? If so, for which specific tasks?

RQ2: Are IT educators satisfied with using Microsoft Copilot Chat for performing professional tasks? If so, which tasks?

RQ3: For what IT educators' professional tasks can be recommended Microsoft Copilot Chat?

The main idea of the study is as follows: If lecturers are satisfied with AI chat tools, they are more likely to utilise them to perform their professional tasks. This usage can assist educators in managing routine tasks, thereby freeing up time for research and creative academic work. In turn, the increased creativity of the lecturers will make learning more engaging and meaningful for students. This positive and stimulating classroom atmosphere is expected to enhance the overall quality of IT education.

2. THE THEORETICAL BACKGROUNDS

This section presents the concepts, approaches, principles, and key provisions of the research. Recently, several strategic recommendations and other documents from the EU have been developed to guide the use of AI in education, including the following: 'AI Act' [8],

'Ethical guidelines on the use of artificial intelligence (AI) and data in teaching and learning for educators' [9], 'Artificial intelligence and education – A teacher-centred approach to safety and health' [10] etc.

Teachers' attitudes towards generative AI tools, with a specific focus on ChatGPT was examined [6]. Using the Technology Acceptance Model (TAM) to assess teachers' attitudes towards ChatGPT carefully, the author considers factors such as perceived usefulness, ease of use, impact on student learning, and concerns about information security and ethical implications. The findings reveal that teachers recognise the potential of AI tools like ChatGPT to transform classrooms into social constructivist learning environments. The author also emphasises the importance of understanding teachers' attitudes towards ChatGPT to effectively implement AI tools in academic settings.

Teachers highlight the AI chat features that assist them in their professional tasks. In particular, it was indicated that AI chat (ChatGPT) is capable of generating quiz questions that are relevant [5]. However, these questions are not sufficient to replace instructor-written questions. Regarding efficiency and resource generation, educators particularly value ChatGPT's prompt creation of instructional materials and provision of instant feedback, perceiving these features as instrumental in optimising the efficiency of teaching and learning processes [4].

The satisfaction of IT teachers with the outcomes of generative AI tools influences their adoption and use in professional activities. This, in turn, affects the expected effectiveness of these technologies and their integration into learning. When IT educators have confidence in the quality and utility of AI tools, they are more likely to use them. This can improve teaching practices and lead to better outcomes for students.

Satisfaction is often related to chat AI's ability to deliver coherent and contextually appropriate responses. 'Satisfaction' is described as the degree to which users feel that their needs and expectations are met by the chatbot experience [11]. The proactivity of bots and individual user characteristics plays an essential role in shaping satisfaction with interaction with AI chats [12]. Also, it is important to consider that some educators may still harbour concerns regarding the accuracy and ethical implications of AI-generated content, which could influence their overall satisfaction and willingness to adopt such tools [13].

Researchers have found that teachers have conflicting views on the usefulness and challenges of AI chats in teaching and assessment. Nguyen highlights differing perspectives among lecturers on the usefulness and challenges of AI chats in teaching and assessment [13]. He notices that many educators recognise that there are more concerns than benefits regarding AI-powered chatbots, especially ChatGPT. They view ChatGPT as a valuable support tool, provided it is used with clear guidance. However, there are significant worries about the potential misuse of ChatGPT and the risk of becoming overly dependent on it in their teaching activities. Additionally, the study's findings reveal that teachers have mixed reactions to the emergence of artificial intelligence [7]. Some educators embraced AI technologies and developed strategies for integrating them into the classroom, while others resisted.

Educators have varying experiences using AI chat tools, particularly ChatGPT, to assist with their professional tasks. While they generally share their views on the chat functions that help improve their teaching strategies, there is often a lack of feedback regarding which tasks AI chat tools perform better or worse. Additionally, it is unclear which tasks AI chat is advisable to use and which tasks it is not.

3. RESEARCH METHODS

The names and registration numbers of scientific programs and research projects can be provided. This research continues the investigation into Microsoft Copilot Chat's role in IT educators' professional activities [14]. According to the results of a previous study, we developed a Guide to using Microsoft Copilot Chat [15]. We introduced this guide to IT educators and held a workshop to familiarise them with the capabilities of Microsoft Copilot Chat in detail. We conducted pre- and post-surveys to analyse the impact of the guide and workshop on educators' understanding of the potential uses of Microsoft Copilot Chat in their professional activities. During the workshop, we asked IT educators to utilise prompts for their queries and evaluate the responses generated by Microsoft Copilot Chat. The collected data formed the foundation of this study.

Similar to the previous pilot study conducted [14], this research utilised an expert survey method [16], [17]. The aim of using this was to gather participant ratings of Microsoft Copilot Chat's responses to their queries. An expert survey method was utilised as a qualitative research approach to gather professional opinions from experts about their satisfaction with using Microsoft Copilot Chat for professional tasks. All survey participants (lecturers and PhD students) from the Department of Computer Science at the Norwegian University of Science and Technology (NTNU) were informed about the study and consented to participate.

3.1. Description and structure of the questionnaire

Data was collected from experts using a questionnaire. To create the survey, the Microsoft Forms online program was used, ensuring privacy settings that did not record participants' names or email addresses. The survey participants received instructions stating that the experts needed first to open Microsoft Copilot Chat, for example, by using the link https://copilot.microsoft.com. We recommend using a corporate account and the Edge browser, which is NTNU's standard for corporate use. However, this was not mandatory, and survey participants could use other browsers or personal accounts. After logging into their Microsoft Copilot Chat account, users were provided access to a Microsoft Form that included sample prompts, sections for entering Microsoft Copilot Chat responses, and tools for assessing those responses. Experts were instructed to use the provided prompts to elicit responses from Microsoft Copilot Chat and then copy each response into the corresponding field in Microsoft Forms.

The questionnaire was structured as follows: numbered lists can be added as follows:

- It contained 22 prompt examples, each accompanied by a text field where respondents could enter the response generated by Microsoft Copilot Chat for their request (prompt).
- There were also 22 questions designed for experts to evaluate each Microsoft Copilot Chat response using a 5-point scale:
 - 1 star very bad;
 - 2 stars bad;
 - 3 stars average;
 - 4 stars good;
 - 5 stars very good (see Fig. 1).

After answering all the questions in the questionnaire, respondents were required to submit the form.

Experts can use the prompts as they are or modify them to suit their preferences. For example, in the suggested prompt: "Imagine that you are a teacher, and tomorrow you need to meet with first-year students. You need to give a motivational speech to students who will be studying the subject "Introduction to Programming", the year of study, the nature of the speech, and the topic can be changed."

Creating a text to greet new students. You can specify the tone or character of the speech. PROMT: Imagine that you are a teacher, and tomorrow you need to meet with first-year students. You need to give a motivational speech to students who will be studying the subject "Introduction to Programming."
RESULT: please insert the result in the text field below
Enter your answer
2 Please evaluate this result on a 5-point scale: 1 star - very bad, 2 stars - bad, 3 stars - average, 4 stars - good, 5 stars - very good

Figure 1. Example of questionnaire structure

The prompts included in the questionnaire were chosen from the 'Guide to Using Microsoft Copilot Chat.' This guide outlines the various functions that IT lecturers typically perform in their roles, including administrative tasks, assessment, communication, lesson planning, professional development, training, and other responsibilities. In line with these functions, we have outlined specific tasks that IT educators can perform using Microsoft Copilot chat. An example prompt accompanied each of these tasks. Table 1 illustrates the relationship among categories, functions, and tasks. Furthermore, we have included task codes in the table to identify each task quickly.

Table 1

Functions	Tasks	Task codes		
Administrative				
Writing a speech	Creating a text to greet new students by specifying the tone or character of the speech	Ad1		
Creating a route	Assistance in drawing up a tourist route for conference visitors	Ad2		
	Making an hour-by-hour plan for travel with all details and directions	Ad3		
Creating quizzes	Developing a quiz for students on a certain topic	As4		
Writing assignments for formative assessment	Suggesting ideas for formative assessment for students taking a particular course	As5		
Writing assignments for summative assessment	Suggesting summative performance tasks for students taking a particular course	As6		
Grading essays	Grading essays based on rubrics	As7		
Communication				
Informing students about news in the professional sphere	Writing a weekly newsletter on a certain topic	C8		
Lesson Planning				
Creating ideas for lesson plans	Creating ideas for lesson plans on a certain topic	LP9		

Categories, functions, and tasks of IT educators

Creating graphic materials for classes	Creating a comparative table between different items	LP10			
Functions related to coding	Explain code	LP11			
	Optimise code	LP12			
	Unit Test Generation	LP13			
Creating the content for slides	Creating the content for slides on a certain topic	LP14			
	Study				
Help in creating a list of references	Change of bibliographic style	S15			
Help in understanding the content of the article	Explanation of the content of the article	S16			
Help in the analysis of the content of the article	Identifying a logical fallacy in a particular article	S17			
Other					
Text recognition	Convert the text in the image to a format that I can copy and paste	O18			
Create images	Creating illustrations for educational purposes	O19			
	Creation of a logo for the conference	O20			
	Creating a mind map to illustrate concepts	O21			
Play education games	Play Trivia on a certain topic	O22			

3.2. Using the rating scale

One of our research methods is the Rating scale, which is a set of categories designed to elicit information about a quantitative or qualitative attribute [18]. We employed a rating scale as an objective and standardised measurement method requiring experts to assign a numerical value indicating their satisfaction with the results of using prompts in Microsoft Copilot Chat. We utilised a 5-point scale, with each rating value having a specific descriptor: 1 star – very bad, 2 stars – bad, 3 stars – average, 4 stars – good, 5 stars – very good. This procedure is often used in attitude assessment [19].

According to the study [20] users tend to give their true ratings on scales they like most rather than the scale design they are most familiar with, we used visual icons, specifically stars, to gather expert ratings on the professional tasks we proposed. To minimise respondent fatigue while answering the survey questions, this design choice for collecting ratings on chat responses effectively reduced their burden.

4. THE RESULTS AND DISCUSSION

The study was conducted in the summer of 2024 and involved 18 experts, including computer science educators and PhD students from the Department of Computer Science at NTNU. Responses to individual questions varied, with 7 to 17 participants providing answers, as indicated in Table 2. The low participation rate may be attributed to the voluntary nature of the survey, which allowed individuals to choose which questions to answer. The substantial amount of work required could also have influenced the respondents. They had to copy the prompt, paste it into the chat box, retrieve the answer, and then copy and paste it again for rating. This process may have led to fatigue.

Regarding the low response rate to the evaluation questions, it is possible that some respondents did not have enough time to thoroughly assess the chat responses. Additionally, a lack of confidence in their evaluations may have contributed to their decision not to provide feedback.

τ	-11-	2
1	able	2

Questions with prompts		Evaluation questions		
Question number	Number of responses	Question number	Number of responses	
1	17	1	15	
2	17	2	15	
3	17	3	15	
4	16	4	15	
5	16	5	15	
6	15	6	12	
7	14	7	12	
8	14	8	12	
9	14	9	11	
10	14	10	11	
11	14	11	9	
12	14	12	9	
13	14	13	8	
14	14	14	9	
15	14	15	10	
16	13	16	9	
17	13	17	9	
18	10	18	8	
19	8	19	8	
20	9	20	9	
21	10	21	10	
22	12	22	9	

The number of responses from participants to prompts and evaluation questions

An analysis of the number of responses to each question indicates a decline in responses toward the final questions. However, there is a slight increase in responses for questions 21 and 22 compared to questions 18-20. This may suggest that the task was engaging enough to capture respondents' attention.

Given this consideration, we questioned whether the responses to the evaluation questions could be deemed reliable and valid.

We used the SPSS Statistics suite of statistical programs to calculate Cronbach's Alpha [21], [22] and Cronbach's Alpha Based on Standardised Items [23].

Table 3

The results of calculating Cronbach's Alpha and Cronbach's Alpha based on standardised items

Reliability Statistics				
Cronbach's Alpha Cronbach's Alpha Based on Standardised Items N of Items				
0.763	0.778	15		

The results indicate good internal consistency for the 15-item scale. The Cronbach's Alpha value of 0.763 exceeds the generally accepted threshold of 0.7, suggesting reliable measurement. This means that the 15 items in the scale consistently measure the same concept or construct.

Based on expert analysis, ratings were collected for each professional task associated with the provided prompts. Table 4 shows the top 15 results from IT experts' evaluations of Microsoft Copilot Chat responses.

Table 4

Code of tasks	Tasks	Average Rating	Rating
O22	Play Trivia on a certain topic	4.67	1
LP13	Unit test generation	4.50	2
LP12	Optimise code	4.44	3
LP14	Creating the content for slides on a certain topic	4.44	4
LP10	Creating a comparative table between different items	4.27	5
Ad2	Assistance in drawing up a tourist route for conference visitors	4.13	6
O19	Creating illustrations for educational purposes	4.13	7
S15	Change of bibliographic style	4.10	8
As4	Developing a quiz for students on a certain topic	4.07	9
LP11	Explain code	4.00	10
As5	Suggesting ideas for formative assessment for students	3.93	11
	taking a particular course		
S16	Explanation of the content of the article	3.78	12
Ad3	Making an hour-by-hour plan for travel with all details	3.73	13
	and directions		
C8	Writing a weekly newsletter on a certain topic	3.67	14
Ad1	Creating a text to greet new students by specifying the tone or character of the speech	3.60	15

The results of calculating Cronbach's Alpha and Cronbach's Alpha based on standardised items

Considering the information presented in the table, we can draw several conclusions. Notably, the highest score from respondents (4.67) was awarded to the task of playing Trivia with Microsoft Copilot Chat on a specific computer science topic, such as 'Object-oriented programming in Python.' Figure 2 illustrates an example of playing Trivia using Microsoft Copilot Chat.

		Let's play Trivia on object	-oriented programm	ing in Python with you.
Copilot				
That sounds like fun! Let's get started v Python. I'll ask you a question, and you	vith some trivia question can try to answer it. Rea	s on object-oriented programm dy? Here we go!	ning (OOP) in	
Question 1: What is the primary purpo	se of using classes in Pyt	non?		
A) To store data B) To define functions	C) To create objects D) To	o perform mathematical operat	ions	
What's your answer? 😊				
Edit in Pages V Copy	Al-generated conte	nt may be incorrect		
				C) To create objects
🎾 Copilot				
	A) Method Wha	t is a constructor in Python?	Can you explain a	ttributes in classes?

Figure 2. Example of a Trivia game featuring Microsoft Copilot Chat on the topic of 'Object-Oriented Programming in Python'

The next items in the ranking are tasks associated with class preparation: unit test generation - 4.5, optimise code - 4.44, creating the content for slides on a certain topic - 4.44, creating a comparative table between different items - 4.27. We recommend utilising prompts in Microsoft Copilot Chat to implement game-based learning tasks in programming and to assist IT lecturers in creating teaching materials and preparing for lessons.

Table 5 presents the seven lowest results from evaluation of responses.

Table 5

Code of tasks	Tasks	Average Rating	Rating
LP9	Creating ideas for lesson plans on a certain topic	3.45	16
As6	Suggesting summative performance tasks for students taking a particular course	3.42	17
O20	Creation of a logo for the conference	3.22	18
As7	Grading essays based on rubrics	3.17	19
S17	Identifying a logical fallacy in a particular article	3.00	20
O18	Convert the text in the image to a format that I can copy and paste	2.88	21
O21	Creating a mind map to illustrate concepts	2.70	22

Lowest 7 Results from evaluating Microsoft Copilot Chat responses

According to the data analysis in the table, the task of creating a mind map to illustrate concepts in programming, specifically object-oriented programming in Python (Fig. 3), received the lowest score of 2.7. This result is caused by the low quality of image generation in Microsoft Copilot Chat. Especially if the text is used in the images. Therefore, at present, it is more advisable to use specialised tools for creating mind maps (for example, Bubbl.us, FreeMind, MindMeister, etc.).

This result is caused by the low quality of image generation in Microsoft Copilot Chat, especially if text is used in the images. Consequently, it is currently more advisable to use special tools for creating mind maps, such as Bubbl.us, FreeMind, MindMeister, and others.



Figure 3. Examples of generating a mind map to illustrate programming concepts

Converting text in an image into a format that can be easily copied and pasted, commonly known as text recognition, received a low rating of 2.88. Therefore, it is clear that recommending tasks such as detecting logical errors in an article is not appropriate for IT teachers in their practical activities.

Based on the data presented in Tables 4 and 5, it can be concluded that educators are most satisfied with the responses provided by Copilot for tasks in the categories of Lesson Planning (5 tasks) and Administrative (3 tasks). Conversely, they express the least satisfaction with the responses for tasks categorised as Other (3 tasks). This indicates that for the tasks educators frequently encounter in their professional activities, specifically in Lesson Planning and Administrative duties, Copilot proves to be helpful, leading to greater satisfaction with its chat responses.

Therefore, whether to recommend using Microsoft Copilot Chat prompting by IT lecturers for professional tasks is a debatable issue, which we will address in the next section.

During the study, we asked: What score rating would be sufficient to recommend that lecturers use Microsoft Copilot Chat for relevant professional tasks?

For example, in a survey about Microsoft 365 Copilot, the average satisfaction rating was 3.1 on a 5-point scale, indicating moderate satisfaction [24]. Belda-Medina and Kokošková employed a 5-point scale to evaluate user satisfaction with chatbot interactions, where 1 indicated 'not satisfied at all' and 5 represented 'completely satisfied.' They found that a mean score of 3.4 was sufficient for considering the chatbot useful, while a mean score of 3.0 indicated a moderate level of satisfaction with the interaction [8]. Mandić et al. [25] utilised a 5-point Likert scale to evaluate the quality of responses from educators regarding ChatGPT. The authors argue that the average score of 3.71 from the respondents suggests there are opportunities for further successful training in this domain. It is essential because previous research suggests that the successful implementation of new teaching technologies relies on educators' attitudes [26].

Therefore, this issue is debatable and can be resolved through various approaches, such as determining a threshold, analysing feedback, and considering the significance of professional tasks. Defining a clear threshold is preferable as we lacked sufficient time for targeted analysis of expert feedback during the seminar. We only have observations and some statements from experts while working with prompts, indicating that teachers were surprised by certain responses from AI chat and their interest in using Microsoft Copilot Chat to help them with professional tasks. Considering the importance of professional tasks also seems acceptable to us, as this may influence the establishment of a different threshold. For example, suppose tasks are essential to the effectiveness of IT training. In that case, then recommending Microsoft Copilot Chat for that task is only appropriate if it consistently receives a score of 4.5 or higher. We can use a statistical approach to calculate a threshold value based on this data. A standard method uses the average of the ratings plus one standard deviation. This approach ensures that we're recommending consistently rated above-average tasks.

We have 22 rating questions, and the total score across all questions is 83.30. This results in an average rating of approximately 3.79, with a standard deviation of around 0.56. Consequently, the calculated threshold value on a 5-point scale is approximately 4.35.

Based on the established threshold, the following tasks are recommended for educators to utilise Microsoft Copilot Chat:

- Play Trivia on a certain topic (4.67);
- Unit test generation (4.50);
- Optimise code (4.44);
- Creating the content for slides on a certain topic (4.44).

These tasks have ratings above the calculated threshold of 4.35 and would be considered highly satisfactory for teachers to use Microsoft Copilot Chat. It is worth noting that this is a stringent threshold. However, this indicates that educators are satisfied and consistently endorse using Microsoft Copilot Chat. It can be lowered to 4.0 to encompass additional tasks that are still rated fairly highly. The tasks that can be considered satisfactory for IT lecturers include the following:

- 1. Creating a comparative table between different items (4.27);
- 2. Assistance in drawing up a tourist route for conference visitors (4.13);
- 3. Creating illustrations for educational purposes (4.13);
- 4. Change of bibliographic style (4.10);
- 5. Developing a quiz for students on a certain topic (4.07);
- 6. Explain code (4.00).

We received 10 tasks that respondents rated highly, suggesting they can be recommended for educators to utilise Microsoft Copilot Chat for professional tasks. We have established the following scale for recommending tasks suitable for Microsoft Copilot Chat:

- 7. 4.5 and above: Fully recommended;
- 8. 4.0 to 4.5: Recommended;
- 9. 3.0 to 4.0: May be recommended with a critical evaluation of the responses;

10. Below 3: Not recommended for use in the professional activities of IT lecturers.

We can lower the threshold to 3.5 if we focus on achieving broad acceptance. However, since we have set high goals for satisfaction and confidence, we consider a threshold of 4.0 or 4.5 to be acceptable. Generally, a score of 4 (Fig. 4) or above on a 5-point scale indicates a positive reception, suggesting that teachers find the tool valuable for their professional tasks. Ratings below this threshold may still demonstrate some usefulness, but educators are likely to see them as less beneficial overall.



Figure 4. IT educators' satisfaction threshold with Microsoft Copilot Chat response results

We would like to acknowledge the limitations of this study. Our research does not explore the long-term effects of Microsoft Copilot Chat, including its impact on instructors' teaching strategies and student outcomes. We did not aim to compare Microsoft Copilot Chat with other AI tools to assess its effectiveness relative to other solutions.

4. CONCLUSIONS AND PROSPECTS FOR FURTHER RESEARCH

We reached the following conclusions concerning IT educators' satisfaction with using the AI tool Microsoft Copilot Chat for their professional tasks. Based on a study of IT educators' opinions on using Microsoft Copilot Chat for their professional tasks, we believe it can assist in a wide range of tasks for IT educators. In particular, it has shown effectiveness in such areas as administrative tasks (writing speeches, planning routes), assessment (developing tests, tasks for formative and summative assessment), communication (preparing information materials), lesson planning (generating ideas, creating graphic materials), programming assistance (explaining and optimising code), scientific activities (creating bibliographies, analysing articles), and others (for example, playing intellectual games on the relevant topic). IT educators generally have a moderately positive view of Microsoft Copilot Chat. Experts evaluated the chatbot's responses on a 5-point scale, with most ratings falling between 'average' and 'good'. This indicates that while the AI chat meets many professional needs, there is still potential for improvement.

Based on an analysis of the response ratings from experts regarding Microsoft Copilot Chat, several capabilities have been identified that best meet the needs of IT educators. These include playing Trivia on a certain topic, unit test generation, optimising code, creating the content for slides on a certain topic and creating a comparative table between different items. To lower the rating threshold, it is recommended to use Microsoft Copilot Chat for the following tasks: assistance in drawing up a tourist route for conference visitors, creating illustrations for educational purposes, change of bibliographic style, developing a quiz for students on a certain topic and explaining code. It is partially recommended to use Microsoft Copilot Chat for such tasks as suggesting ideas for formative assessment for students taking a particular course, explaining the content of the article, making an hour-by-hour plan for travel with all details and directions, writing a weekly newsletter on a certain topic and creating a text to greet new students by specifying the tone or character of the speech.

It is not recommended to use Microsoft Copilot Chat for creating ideas for lesson plans on a certain topic, suggesting summative performance tasks for students taking a particular course, creating a logo for the conference, grading essays based on rubrics, identifying a logical fallacy in a particular article, convert the text in the image and creating a mind map to illustrate concepts. It is important to note that AI technology is evolving quickly, and tasks that Microsoft Copilot Chat previously struggled with may now be handled more effectively. This necessitates further comparative research. Prospects for further research. It is essential to provide educators with training focused on practical applications to enhance their perceptions of AI chats and improve their understanding of AI principles and prompt usage. Additionally, programs and manuals outlining how to effectively use AI chats in education should be developed.

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ВИВЧЕННЯ ЗАДОВОЛЕНОСТІ ІТ-ВИКЛАДАЧІВ ЩОДО ВИКОРИСТАННЯ MICROSOFT COPILOT CHAT ДЛЯ ВИКОНАННЯ ПРОФЕСІЙНИХ ЗАВДАНЬ

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Анотація. Дослідження спрямоване на вивчення думок ІТ-викладачів щодо використання Microsoft Copilot Chat для виконання професійних завдань. Значущість дослідження обумовлена зростаючим впливом генеративних технологій штучного інтелекту на освіту та необхідність оцінки їх використання фахівцями. У дослідженні використовувався метод опитування експертів (18 осіб) з використанням шкали оцінювання. Результати вказують на різну ступінь задоволеності експертів відповідями Microsoft Copilot Chat залежно від типу завдань. Найвищу оцінку отримали такі завдання: вікторина на певну тему (4,67), генерація модульних тестів (4,50), оптимізація коду (4,44), створення контенту для слайдів на певну тему (4,44) та розроблення порівняльної таблиці між різними елементами (4,27). Найнижчими у рейтингу виявились завдання щодо створення логотипу для конференції (3,22), оцінювання есе на основі рубрик (3,17), виявлення логічної помилки в певній статті (3,00), перетворення тексту на зображенні у формат, який можливо скопіювати та вставити (2,88) та створення ментальної карти для ілюстрації концепцій (2,70). Отже, для такого роду завдань з низькою оцінкою наразі не рекомендовано використовувати Microsoft Copilot Chat. У дослідженні застосовувався пакет SPSS Statistics для розрахунку Cronbach's Alpha та Cronbach's Alpha Based on Standardised Items.На основі аналізу відповідей експертів було зібрано оцінки для кожного професійного завдання, для якого було запропоновано відповідний запит. Практичне значення дослідження полягає в демонстрації викладачам можливостей Microsoft Copilot Chat для виконання рутинних професійних завдань. Він виявився особливо ефективним у кількох сферах, зокрема: адміністративні завдання (написання промов, планування маршрутів), оцінювання (розробка тестів, завдань для формувального та підсумкового оцінювання), комунікація (підготовка інформаційних матеріалів), планування навчальних занять (генерування ідей, створення графічних матеріалів), допомога в програмуванні (пояснення та оптимізація коду), наукова діяльність (створення бібліографії, аналіз статей) та інші. Наведено перспективи подальших досліджень, що полягають у розробленні програм підвищення кваліфікації для ІТ-викладачів щодо використання ШІ в професійній діяльності, а також з'ясуванні ефективності таких програм.

Ключові слова: Microsoft Copilot Chat; IT-викладачі; удосконалення IT освіти; професійна діяльність.

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