

Modern Psychology Scientific Bulletin, 2023, 2(13)

P-ISSN 2579-2504

E-ISSN 2738-2664

ԱՐԴԻ ՀՈԳԵԲԱՆՈՒԹՅՈՒՆ
ԳԻՏԱԿԱՆ ՀԱՆԴԵՍ

MODERN PSYCHOLOGY

SCIENTIFIC BULLETIN

АКТУАЛЬНАЯ ПСИХОЛОГИЯ

НАУЧНЫЙ ВЕСТНИК

ԵՐԵՎԱՆ 2023, №2 (13)

A REVIEW OF HOW THE USE OF CHATGPT IN LEARNING AFFECTS STUDENT WELL-BEING

Zheyu Song (Yerevan State University, Yerevan, Armenia)

zheyusong@gmail.com

Received: 07.09.2023

Revised: 13.09.2023

Accepted: 20.09.2023



This article provides a review of the current relations between the use of ChatGPT for learning and student well-being. ChatGPT is an AI-based chatbot that can be used to assist students in their learning. It can provide personalized learning recommendations, answer questions, and offer feedback on assignments. However, the impact of using ChatGPT on student well-being can vary depending on several factors.

Keywords: *student well-being, ChatGPT, modern AI-enhanced technology, learning, policymaking, social environment, academic engagement*

Firstly, the design and implementation of ChatGPT can affect the student's experience. If the chatbot is poorly designed or implemented, it can cause frustration or confusion, which can negatively impact the student's well-being. On the other hand, a well-designed chatbot that is easy to use and provides helpful feedback can enhance the student's learning experience and overall well-being. Secondly, the student's perception of ChatGPT can also affect their well-being. If the student views ChatGPT as a helpful tool that enhances their learning experience, it can lead to positive emotions and a sense of accomplishment. However, if the student sees ChatGPT as a replacement for human interaction or as a means of surveillance, it can lead to negative emotions such as anxiety or fear. Lastly, the role of ChatGPT in the overall learning environment can also impact student well-being. If ChatGPT is used as a supplement to traditional teaching methods and provides additional support, it can enhance the student's learning experience and improve their well-being. However, if ChatGPT is used as a replacement for human teachers or as the sole means of learning, it can lead to a sense of isolation and disconnection from the learning experience.

This article analyzes the impact of using ChatGPT on student well-being depending on several factors such as design, implementation, perception, and role in the overall learning environment. When designed and implemented well, and used

as a supplement to traditional teaching methods, ChatGPT can enhance the student's learning experience and improve their well-being.

ChatGPT, an AI-based chatbot, is a term used to describe the use of OpenAI's GPT language model for conversational purposes. ChatGPT has experienced unprecedented growth and is considered the fastest-growing service in the history of the internet. In February 2023, it surpassed 100 million users, highlighting the popularity and potential impact of AI-powered chatbots in providing accessible and personalized support to individuals seeking information and guidance on a range of topics [8]. The debate about appropriate screen time for young adults continues to rage on among educators, psychologists, and parents. However, the emerging technology, in the form of artificial intelligence and machine learning, is beginning to transform educational tools and institutions, and is changing the landscape of education for the future [9].

ChatGPT as a learning tool can provide students with instant access to information and resources, answer their questions, and engage them in interactive activities, and can be used to supplement traditional learning methods and provide personalized support to students [3]. AI can be used to track student behavior and identify early signs of stress, anxiety, or other mental health issues, which then can be used to provide targeted interventions and support to students. AI can also be used to personalize learning, providing students with tailored resources and activities based on their individual needs and strengths (The Educator, 2023) [12]. Additionally, AI can facilitate assessments by automating tasks such as grading and providing insights into student performance, which enhances student academic engagement and makes the learning process efficient [11]. There are some popular AI-based tools that can be used to enhance student well-being: for example, Forest is an AI-enhanced productivity app that helps students stay focused and manage their time effectively, which uses gamification techniques to encourage users to stay off their smartphones and concentrate on their tasks. Users grow virtual trees as they avoid distractions, contributing to a sense of accomplishment and improved productivity. Also, Calm is a meditation and sleep app that utilizes AI to deliver guided meditations, relaxation techniques, and sleep stories, which offers a wide range of mindfulness content to reduce stress, improve focus, and promote better sleep. Calm also includes features like breathing exercises, nature sounds, and customizable meditation durations. However, it's important to note that these tools should be used as aids and not as a substitute for professional advice or treatment when necessary.

Up till early 2023, there are ongoing debates regarding whether AI-based chatbots should be used for learning. An article published by the New York Times earlier this year discussed cases of academic cheating involving ChatGPT in college courses, and in response to such incidents, certain schools have gone so far as to completely block access to the technology (Huang, 2023) [5]. The New York City

Department of Education, for instance, has prohibited the use of ChatGPT, citing concerns that it could impede students' learning outcomes [15].

Figure 1 shows that approximately 78% of individuals who use ChatGPT express a high likelihood of recommending the tool to their fellow students.

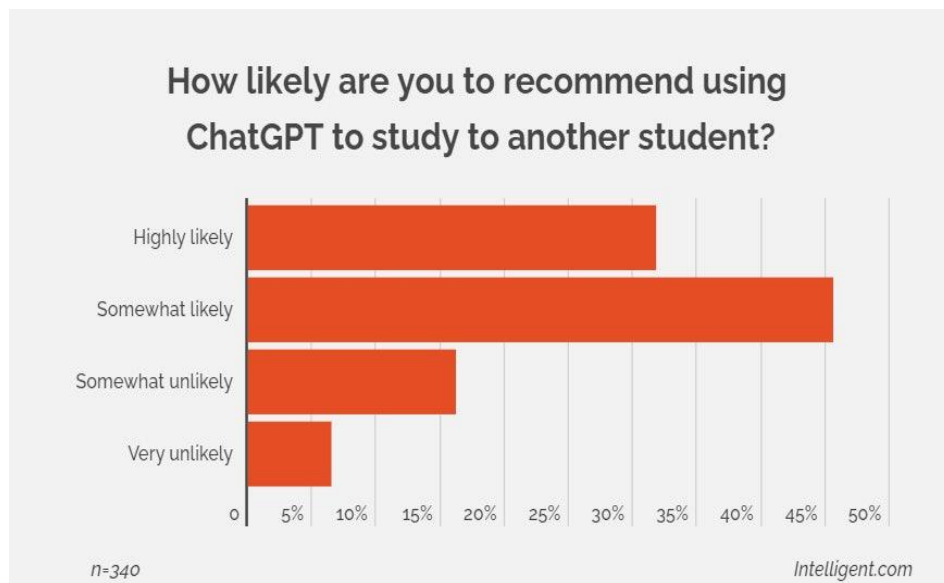


Figure 1. College students responding to their experience studying with ChatGPT during 2022-23 academic year¹.

Despite concerns about academic dishonesty, some educators view ChatGPT as an opportunity rather than a threat. In a recent op-ed published in the LA Times, psychologist Angela Duckworth, PhD, argued against banning the bot, stating that such technologies are here to stay and that instructors should instead learn how to incorporate them into their curricula effectively; and educators can ensure that students are equipped with the tools they need to succeed in a rapidly changing technological landscape [4].

Technology and student well-being

Mental health issues are a growing concern for students, with many academic institutions struggling to provide adequate support and resources, and mental disorders can significantly impair an individual's quality of life and are considered one of the leading causes of disability worldwide [14]. Openly discussing mental health in education is crucial to normalizing it and reassuring young people who may be struggling that they are not alone. By fostering an open and accepting environment

¹ <https://www.intelligent.com/one-third-of-college-students-used-chatgpt-for-schoolwork-during-the-2022-23-academic-year/>

around mental health, students are more likely to carry these positive attitudes and behaviors forward into their adult lives, ultimately promoting improved mental health and well-being for all. In addition, technology can provide greater accessibility and convenience for students, particularly for those who may be hesitant to seek support in person [6]. Technology is being utilized in various ways to address mental health challenges. Mental health apps, online counseling services, and AI chatbots are some examples of how technology is being used to provide individuals with resources and support to manage their mental health and well-being effectively [1].

Generative AI, including ChatGPT, has the potential to provide scalable support for student well-being. One potential benefit of ChatGPT is that it can engage in personalized discussions with individuals, providing a safe and private context for exploring a wide range of mental health and well-being questions. Although the accuracy and conciseness of its responses are still being evaluated, some argue that a conversation agent like ChatGPT may be more helpful for students than traditional web-based searches in finding relevant information or resources on these topics. Despite its limitations, such as the inability to reference specific sources, ChatGPT has the potential to serve as a useful tool for students seeking information and support regarding mental health and overall well-being [12].

Teachers in Denmark are using mood auditing apps to monitor the emotional well-being of their students, allowing students to regularly rate their mood and alert teachers if they are feeling particularly low or stressed, and helping teachers identify students who may be struggling and provide them with the necessary support. The use of these apps has been well-received by both students and teachers, with many reporting increased communication and a greater sense of community within the classroom; However, some have expressed concerns about the potential for the data to be misused or mishandled [7]. One study showed the implementation of digital technology in schools across multiple countries had worsened a range of issues it was intended to improve, resulting in an overall negative impact on learning outcomes [10].

Technology has the potential to play an important role in addressing student mental health challenges in higher education, but it must be used in conjunction with other forms of support and resources (Kingsley, 2023) [6]. An article from the American Psychological Association highlights the potential benefits of AI, such as improving efficiency, as well as the challenges and ethical considerations associated with AI, such as the potential for bias, privacy concerns, and job displacement, and emphasizes the need for ongoing research, regulation, and collaboration between experts in various fields to ensure that AI is used in an ethical and responsible manner

that benefits society [2]. There are a few examples of how a well-designed ChatGPT can be used by students to improve their well-being²:

Table 1.

How a well-designed ChatGPT can be used by students to improve their well being.

Themes	Examples
Mental Health Support: The chatbot can provide a safe and confidential space for students to express their feelings and concerns, which can offer empathetic responses, active listening, and provide information about mental health resources available on campus. For example, the chatbot can suggest counseling services, self-help articles, or relaxation techniques to help manage stress and anxiety.	Student: "I'm feeling really stressed about my upcoming exams." ChatGPT: "I understand how exams can be stressful. Remember to take breaks, practice deep breathing exercises, and consider reaching out to the counseling center for additional support."
Study and Time Management Assistance: The chatbot can help students develop effective study habits and time management skills, which can provide tips on creating study schedules, prioritizing tasks, and maintaining focus. Additionally, the chatbot can remind students about upcoming deadlines or exams and offer motivational messages to encourage productivity.	Student: "I'm having trouble staying focused while studying." ChatGPT: "Maintaining focus can be challenging. Have you tried using the Pomodoro technique? It involves studying for 25 minutes, taking a 5-minute break, and repeating. It can help improve concentration and productivity."
Goal Setting and Motivation: The chatbot can assist students in setting personal and academic goals, which can engage in goal-setting conversations, offer guidance on breaking goals into actionable steps, and provide regular check-ins to track progress. The chatbot can also celebrate achievements and provide encouragement to keep students motivated.	Student: "I want to improve my public speaking skills." ChatGPT: "That's a great goal! Breaking it down, you can start by practicing in front of a mirror, then with a small group of friends, and gradually work your way up to larger audiences. Remember, progress takes time, so don't be too hard on yourself!"
Health and Wellness Tips: The chatbot can offer advice and reminders related to physical health and wellness, which can	Student: "I'm having trouble sleeping at night."

² <https://www.scientificamerican.com/article/how-chatgpt-can-improve-education-not-threaten-it/>

provide information about nutrition, exercise, sleep hygiene, and stress reduction techniques. The chatbot can also answer common health-related questions and direct students to appropriate resources or campus health services if needed.	ChatGPT: "Trouble sleeping can be frustrating. Have you tried establishing a bedtime routine? Avoid screens before bed, create a calm environment, and consider relaxation techniques like reading or listening to soothing music. If the problem persists, it might be helpful to consult the campus health center."
--	---

It's important to note that while ChatGPT can provide valuable support, it should not replace professional help when needed. It's crucial to incorporate human intervention and ensure that the chatbot encourages students to seek appropriate assistance for serious concerns.

In conclusion, Using ChatGPT in learning provides several potential benefits to students. One advantage is that it can offer personalized learning recommendations based on the student's learning history and performance. By tailoring the learning materials and activities to the student's needs and interests, ChatGPT can increase student engagement and motivation, which can ultimately improve their well-being. Another benefit of ChatGPT is that it can provide immediate feedback on assignments, which can help students feel more confident in their learning and reduce anxiety related to uncertainty about their performance. This feature can be especially useful for students who may be hesitant to ask questions or seek feedback from human teachers. However, it's important to note that ChatGPT should not be viewed as a replacement for human interaction and support. While the chatbot can provide valuable assistance, it cannot fully replace the guidance and expertise of human teachers. Therefore, ChatGPT should be used as a supplement to traditional teaching methods rather than a substitute.

Moreover, the design and implementation of ChatGPT is crucial in determining its effectiveness and impact on student well-being. If the chatbot is poorly designed or implemented, it can cause frustration and negatively affect student well-being. Thus, it's essential to design and implement ChatGPT in a way that maximizes its benefits and minimizes its potential drawbacks. Overall, while ChatGPT has the potential to enhance student well-being by providing personalized recommendations and immediate feedback, it's crucial to approach its implementation with caution and to use it in conjunction with human interaction and support.

References

1. **Abd-Alrazaq, A. A., Rababeh, A., Alajlani, M., Bewick, B. M., & Househ, M.** (2020). Effectiveness and Safety of Using Chatbots to Improve Mental

- Health: Systematic Review and Meta-Analysis. *Journal of medical Internet research*, 22(7), e16021. <https://doi.org/10.2196/16021>
2. **Abrams, Z.** (2021, November 1). The promise and challenges of AI. *American Psychological Association*. <https://www.apa.org/monitor/2021/11/cover-artificial-intelligence>
 3. **Abramson, A.** (2023, March 27). How to use ChatGPT as a learning tool. *American Psychological Association*. <https://www.apa.org/monitor/2023/06/chatgpt-learning-tool>
 4. **Duckworth, A., & Ungar, L.** (2023, January 19). Op-Ed: Don't ban chatbots in classrooms — use them to change how we teach. <https://www.latimes.com/opinion/story/2023-01-19/chatgpt-ai-education-testing-teaching-changes>
 5. **Huang, K.** (2023, January 16). Alarmed by A.I. Chatbots, Universities Start Revamping How They Teach. *The New York Times*. <https://www.nytimes.com/2023/01/16/technology/chatgpt-artificial-intelligence-universities.html>
 6. **Kingsley, A.** (2023, March 31). How Tech Is Stepping Up For Student Mental Health. *Forbes*. <https://www.forbes.com/sites/forbestechcouncil/2023/03/31/how-tech-is-stepping-up-for-student-mental-health/amp/>
 7. **Khameneh, A.** (2023, April 17). Teachers in Denmark are using apps to audit their students' moods. *MIT Technology Review*. https://www.technologyreview.com/2023/04/17/1071137/denmark-teachers-apps-student-mood-audit-software/?truid=1583078d47f51b78fc2b6200a5bf5c87&utm_source=the_download&utm_medium=email&utm_campaign=the_download.unpaid.engagement&utm_term=&utm_content=04-17-2023&mc_cid=6cac3e76a5&mc_eid=d821f73c38
 8. **Kochovski, A.** (2023, March 25). 20 ChatGPT Statistics & Facts in 2023: OpenAI Chatbot Explanation, Stats & Trends. <https://www.cloudwards.net/chatgpt-statistics/#:~:text=How%20Popular%20is%20ChatGPT%3F,the%20100%20million%20user%20mark>
 9. **Marr, B.** (2018, July 25). How Is AI Used in Education -- Real World Examples of Today And A Peek Into The Future. *Forbes*. <https://www.forbes.com/sites/bernardmarr/2018/07/25/how-is-ai-used-in-education-real-world-examples-of-today-and-a-peek-into-the-future/amp/>
 10. **Schleicher, A.** (2015, September 15). School technology struggles to make an impact. <https://www.bbc.com/news/business-34174795>

11. **Swiecki, Z., Khosravi, H., Chen, G., Martinez-Maldonado, R., Lodge, J.M., Milligan, S., Selwyn, N., & Gašević, D.** (2022). Assessment in the age of artificial intelligence. *Computers and Education: Artificial Intelligence*, Volume 3. <https://doi.org/10.1016/j.caeai.2022.100075>.
12. *The Educator*. (2023, March 2). AI and student wellbeing: New opportunities for assessment and learning.
13. <https://www.theeducatoronline.com/k12/news/ai-and-student-wellbeing-new-opportunities-for-assessment-and-learning/282033>
14. **Tutun, S., Johnson, M.E., Ahmed, A.** et al. An AI-based Decision Support System for Predicting Mental Health Disorders. *Inf Syst Front* (2022). <https://doi.org/10.1007/s10796-022-10282-5>
15. **Whiteford, H. A., Ferrari, A. J., Degenhardt, L., Feigin, V., & Vos, T.** (2015). The global burden of mental, neurological and substance use disorders: an analysis from the Global Burden of Disease Study 2010. *PLoS one*, 10(2), e0116820. <https://doi.org/10.1371/journal.pone.0116820>
16. **Yang, M.** (2023, January 6). New York City schools ban AI chatbot that writes essays and answers prompts. <https://amp.theguardian.com/us-news/2023/jan/06/new-york-city-schools-ban-ai-chatbot-chatgpt>

ԲՈՎԱՆԴԱԿՈՒԹՅՈՒՆ * СОДЕРЖАНИЕ * CONTENTS

ANNA SAMOKHVALOVA, ELENA TIKHOMIROVA, OKSANA VISHNEVSKAYA, NATALYA SHIPOVA, MARIA SMOLINA METHODS OF PREVENTION OF PSYCHOLOGICAL DISEASE OF YOUTH STUDENTS.....	3
AREVIK HEBOYAN INFORMATION SOURCES OF TRADING DECISION MAKING AS DETERMINING FACTORS FOR COGNITIVE BIASES.....	16
ASYA BERBERYAN, ALINA TUMASIAN INTERCONNECTION BETWEEN PERSONALITY SELF-ATTITUDE AND FACTORS INFLUENCING THE CHOICE OF FORMAL AND INFORMAL ADDRESS: PSYCHOLOGICAL AND LINGUISTIC ASPECTS	25
ARMEN AVETISYAN WAYS TO PREVENT THE NEGATIVE SOCIO-PSYCHOLOGICAL IMPACT OF MISLEADING INFORMATION	37
SONA POGHOSYAN PSYCHOLOGICAL FACTORS OF THE CREATIVITY MANIFESTATION OF MODERN MANAGERS.....	46
SRBUHI GEVORGYAN THE PROBLEM OF CHILDHOOD IN THE CONTEXT OF MODERN CHALLENGES IN THE EDUCATION SYSTEM	56
VARDUHI PAPOYAN, ALINA GALSTYAN, DIANA SARGSYAN, MILENA KARAPETYAN CHARACTERISTICS OF THE COMPETENCIES OF THE PEDAGOGICAL STAFF IN THE CURRENT CRISIS SITUATION	69
VICTORIA GAVRILOVA, SVETLANA IVASHKO EMDR AS A WAY TO CORRECT THE ACTUAL MENTAL STATES OF STUDENTS DURING THE EXAMINATION SESSION	79
ZHEYU SONG A REVIEW OF HOW THE USE OF CHATGPT IN LEARNING AFFECTS STUDENT WELL-BEING	89