

## ChatGPT is Here! Teachers, Bring it on!

Campus focus

### Preface

The emergence of ChatGPT, a large-scale language model developed by OpenAI in November 2022, has generated widespread discussions and unprecedented impact in various fields, especially in academia. National Tsing Hua University was the first university to establish a project team to discuss the potential implications of ChatGPT. National Taiwan University has issued guidelines on ChatGPT "Teaching Strategies for Generative AI Tools," providing strategies such as limiting student usage, enhancing practical exercises in class, and increasing the difficulty of assignments and exams. Academic debates are ongoing, and the repercussions continue to reverberate. As a comprehensive university with 8 colleges, including liberal arts, science, engineering, business and management, foreign languages, international affairs, education, and AI, how do teachers in different fields at Tamkang University respond to this new challenge? In addition to interviewing teachers' opinions, this report also opens a "Ask TKU Expert" page on Tamkang University's Facebook fan page (<https://www.facebook.com/tku.official.fb>). Dr. Chih-Yung Chang, Distinguished Professor from the Department of Computer Science and Information Engineering, will reply to questions related to ChatGPT on the page. Faculty and students are welcome to ask questions.

Unstoppable. Embrace and accept rather than prohibit

ChatGPT embodies remarkable progress in natural language processing and generation capabilities. Compared to other chatbot models, it not only conducts complex and fluent conversations, but also has the ability to self-learn and evolve. Moreover, with its rich database, ChatGPT has a basic understanding of various professional domains. It is undoubtedly a significant advancement in the field of AI technology.

ChatGPT has the ability to summarize and generate text, making it a useful

tool for students to complete assignments and reports, like riding on a fast highway. However, there are some teachers who hold opposing views, and even some universities like the University of Hong Kong have banned the use of ChatGPT by students. On the other hand, there are also teachers who support and encourage the use of new technology by students.

Dr. Chang, who voted in support, gave a speech titled "Unleashing the Positive Power of ChatGPT in Teaching and Learning" at the "Smart Future GO! SPROUT Lectures on Digital Learning" seminar held by the Center for Distance Education Development of the Office of Information Services on March 15. He shared his perspective that instead of banning students from using ChatGPT, it's better to understand and harness its capabilities. Dr. Chang believes that "with the rapid development of new technology, companies, organizations, and educational institutions should understand that the future of technology will only get faster and better. ChatGPT is like a tool for us, and we should train students to become tigers in using tools, enabling them to excel with the assistance of technology, and utilize it for human-machine collaboration to gain an advantage."

Similarly, Japanese Professor Chiu-Kuei Tseng and Associate Professor Sheng-Shiang Tseng from the Department of Education and Futures Design, who support the same opinion, also expressed their optimistic attitudes. Dr. Chiu-Kuei Tseng stated, "The era cannot be reversed now, just like how we do not prohibit students from using smartphones. Therefore, I hold an optimistic attitude and will encourage students to use ChatGPT more." Dr. Sheng-Shiang Tseng also shared, "I welcome its development, after all, it is an unstoppable force. Teachers should be accommodating and embrace ChatGPT. What we need to do is to teach students how to use it properly and let them unleash their uniqueness."

Assistant Professor Hsiao-Tsu Wang from the Bachelor's Program in Advanced Materials Science holds a neutral stance and shares the pros and cons of students using ChatGPT. He says, "There are 2 aspects to consider. First, in terms of data searching, students can quickly obtain information and save a lot of time. However, their ability to search for information may not be adequately trained. Second, in terms of knowledge, students can

quickly access relevant information, but at the same time, it may hinder their opportunity for self-reflection after searching through a large amount of information."

The impact on the role of teachers and the need to redefine their professional positioning

ChatGPT's versatility may make many industries feel threatened, fearing being replaced. So, is the job of teachers also at risk?

Dr. Chang believes that the role of teachers will not be replaced. He says, "When ChatGPT can serve as a TA or a teacher's avatar to help students clarify complex concepts and knowledge, students will no longer solely rely on teachers as they used to. However, the role of teachers will not be replaced. Students can receive assistance from ChatGPT, and teachers can also utilize ChatGPT to enhance their own professional abilities and teaching methods." Dr. Chang also mentioned that ChatGPT can help teachers overcome challenges such as limited time and manpower to respond to students. ChatGPT can even provide suggestions to teachers on teaching methods, educational theories, and instructional strategies, upgrading teachers' lesson plans.

Using bilingual instruction as an example, Dr. Sheng-Shiang Tseng shares how ChatGPT can help teachers: "Teachers of non-English courses often seek advice from English teachers, asking if the vocabulary they are using is too difficult or if there are any grammar errors. The emergence of ChatGPT can help these non-English teachers solve these problems."

Therefore, although ChatGPT will not replace teachers, it will indeed transform the role of teachers. The traditional image of teachers as encyclopedias or authoritative figures in the eyes of students may no longer be sustainable in the presence of ChatGPT. Professor Chiu-Kuei Tseng shares her perspective on this: "The role of teachers needs to be transformed. Teachers are no longer the sole authority giving instructions, but rather they need to become facilitators who accompany students in the process of learning and provide them with platforms for development." She also believes that the role of teachers in tailoring instruction to individual students, recognizing their strengths, and providing affirmation

and consultation is irreplaceable by ChatGPT.

