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Foot and Ankle Surgery declares use of generative artificial intelligence like Chat Generative Pre-trained Transformer (ChatGPT) for scientific publications



Artificial Intelligence (AI) in science has taken another step forward in the release of the large language model software, Chat Generative Pre-trained Transformer (ChatGPT), a publicly accessible tool developed by OpenAI (https://chat.openai.com) [1]. OpenAI describes ChatGPT as a machine, a program, a robot, or technically, a large language model trained on information from the Internet [2]. OpenAI claims that ChatGPT is able to respond to user prompts by answering questions, writing essays, poems, love letters, computer code, or business plans; that it can solve problems, including math or physics; and more [2]. "The bot doesn't just search and summarize information that already exists. It creates new content, tailored to your request" [2]. Authors already played with the idea of having the software write part of their scientific article for them, and explored the implications of this [3]. ChatGPT was also used to write part of a letter to the editor which was published in Arthroscopy [2,4].

Actually, I have asked ChatGPT to write an editorial for our journal about ChatGPT. I used the following instructions: "write 200 words about chat gpt editorial foot and ankle surgery journal". ChatGPT created the following text in less than 10 s: "ChatGPT is an advanced language model that can provide valuable insights and knowledge on a variety of topics, including the field of foot and ankle surgery. One of the most prestigious and influential journals in this field is the Editorial Foot and Ankle Surgery Journal, which is dedicated to publishing the latest research and clinical developments in this area of medicine. The Editorial Foot and Ankle Surgery Journal covers a broad range of topics related to foot and ankle surgery, including surgical techniques, post-operative care, and rehabilitation. The journal is an invaluable resource for surgeons, researchers, and medical professionals who specialize in this area, as it provides a platform for the dissemination of cutting-edge research, best practices, and clinical guidelines. As a language model, ChatGPT can help users stay up-to-date with the latest research and developments in foot and ankle surgery by providing access to the vast knowledge and expertise contained in the Editorial Foot and Ankle Surgery Journal. Through its advanced natural language processing capabilities, ChatGPT can analyze and interpret complex medical terminology, helping users understand and apply the latest research findings and clinical guidelines in their practice. Overall, the Editorial Foot and Ankle Surgery Journal is an essential resource for anyone working in this specialized area of medicine, and ChatGPT can serve as a valuable tool for accessing and understanding the wealth of information contained within this influential publication".

The text looks nice at a glance. All predefined words/terms have been included. The wordcount almost matches the instructions with 231 words. When having a closer look, the text seems to be a

"standard" text with inclusion of the predefined terms. However, ChatGPT did not recognize the correct journal but created a new journal: "Editorial Foot and Ankle Surgery Journal" which was described as "an essential resource for anyone working in this specialized area of medicine".

Based on this example, the description of ChatGPT from above could be judged as follows: "ChatGPT is a machine, a program, a robot, or technically, a large language model trained on enormous amounts of information from the Internet" - No, not even the correct journal name was found in "enormous amounts of information from the internet", whereas this can be found there by a human within seconds. "ChatGPT is able to respond to user prompts by answering questions, writing essays, poems, love letters, computer code, or business plans; it can solve problems, including math or physics; and more." - Yes, but with low quality content at least in this example. "The bot doesn't just search and summarize information that already exists. It creates new content, tailored to your request." - No, no new content was presented in this example at all. Tailored to the request - Yes, but just wrong (wrong journal).

One could argue that the instructions have been not adequate, but one could also argue that a real intelligence would have recognized the correct journal name. Of course, there is no harm or damage at all by this example but one could imagine harm and damage when for example a disease, deformity or injury is confused like this by AI/ChatGPT and someone would follow during decision making for treatment.

After having discussed this among the editors and the publisher of Foot and Ankle Surgery, we concluded that submissions to our journal must remain under the responsibility of human (co)authors. Inclusion of AI during the generation of manuscripts is not forbidden but has to be clarified during submission. AI as (co)authors or citations of such are not allowed.

The instructions for authors have been modified as follows:

"Declaration of generative AI in scientific writing.

The below guidance only refers to the writing process, and not to the use of AI tools to analyses and draw insights from data as part of the research process.

Where authors use generative artificial intelligence (AI) and AI-assisted technologies in the writing process, authors should only use these technologies to improve readability and language. Applying the technology should be done with human oversight and control, and authors should carefully review and edit the result, as AI can generate authoritative-sounding output that can be incorrect, incomplete or biased. AI

and AI-assisted technologies should not be listed as an author or coauthor, or be cited as an author. Authorship implies responsibilities and tasks that can only be attributed to and performed by humans, as outlined in Elsevier's AI policy for authors.

Authors should disclose in their manuscript the use of AI and AI-assisted technologies in the writing process by following the instructions below. A statement will appear in the published work. Please note that authors are ultimately responsible and accountable for the contents of the work.".

In conclusion, ChatGPT can create good looking text with predefined words/terms. However, in the current form or better development stage, it seems to be not adequate for precise and specific text generation which would be the basis for use in scientific publications. The human author should be aware of this and still has full responsibility of submitted manuscripts to Foot and Ankle Surgery. We have to be aware that AI technology might change scientific publishing in the future.

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Martinus Richter 1

Department for Foot and Ankle Surgery Nuremberg and Rummelsberg, Location Hospital Rummelsberg, Rummelsberg 71, 90592 Schwarzenbruck, Germany

E-mail address: martinus.richter@sana.de

¹ Homepage: www.krankenhaus-rummelsberg.de (Quick access department: www.foot-surgerv.eu)