LETTER TO THE EDITOR



Editorial letter: Artificial Intelligence can be used to improve the humanity of care

Jerome R. Lechien 1,2,3

Received: 9 April 2024 / Accepted: 15 April 2024 / Published online: 30 April 2024 © The Author(s), under exclusive licence to Springer-Verlag GmbH Germany, part of Springer Nature 2024

Keywords Artificial Intelligence · Otolaryngology · Otorhinolaryngology · Head neck · Surgery · ChatGPT · Humanity

Dear Editors,

I read the opinion of Dr Gazzini on the development of Artificial Intelligence (AI) in Otolaryngology-Head and Neck Surgery. I thank the author for sharing their fears on this important topic. I will try to respond to them point-by-point using the literature and the ongoing knowledge.

First, the author believes that there are major differences between the development of AI and past technologies stating that "previous inventions aimed to relieve humans of manual, humble, or dangerous labor, improving their quality of life and allowing more time for intellectual pursuits, curiosity, knowledge-seeking, creativity, and dialogue with others" [1]. Concerning AI, the author doubts that this technology serves to take away intellectual work from humans or at least make it easier with the risk of brain inertia. There is always a risk that depends on the objective of our decision. Everything remains to be seen, and we have the possibility to use AI to reduce some unfriendly tasks, leaving the scene to the creativity, brain stimulation and enjoying works. For example, when we conduct a study, a large part of our time is dedicated to the collection of data, review of medical records, and preparation of data sheets for statistics. These

This reply refers to the comment available online at https://doi.org/10.1007/s00405-024-08621-0.

- ☐ Jerome R. Lechien jerome.lechien@umons.ac.be
- Department of Laryngology and Broncho-Esophagology, EpiCURA Hospital, Anatomy Department of University of Mons, Mons, Belgium
- Department of Otolaryngoly-Head Neck Surgery, Foch Hospital, University of Paris Saclay, Paris, France
- ³ Phonetics and Phonology Laboratory, UMR 7018 CNRS, Université Sorbonne Nouvelle/Paris 3, Paris, France

tasks are repetitive, time-consuming, and discouraging for some practitioners without protected research time or staff. AI can help the practitioner in performing these tasks, which will free-up time for creativity, development of additional studies, and other enthusiastic tasks [2].

Second, as presented in my Editorial [3], Dr Gazzini recalls the importance of the doctor-patient trust relationship, the risk of a patient arriving with a ChatGPT diagnosis, and the related risk of a lack of trust in the doctor's opinion based on the AI-dictated result [1]. This is a real risk and, as for the first point, it is related to the misuse of AI software. The trust relationship between a patient and a practitioner depends on several factors, e.g. the duration of the consultation, quality of the explanation, clarity, and time for questions [4, 5]. To date, with the shortage of practitioners in Western countries, the time dedicated to the consultation, questions, and reassurance, are increasingly affected by the need to be time-effective [6]. AI could prepare the consultation by collecting all repetitive information (e.g. patient symptoms; medical/surgical history; medication; addictions), which could give more time for the human tasks, including the explanation of treatment, which improves patient adherence to treatment. In other words, AI can improve the humanity of care if it is used in this way. Note that the author stated that the screening of emergent situations to prioritize patients for evaluation by a human doctor is not yet reliable [1]. It is partly correct for ChatGPT but an emerging literature using specific AI-software is demonstrating the opposite with very effective results [7, 8].

I conclude my response to Dr Gazzini by this transversal point: it's all a matter of perception and human decision. In the historic examples provided by the author, humans had the choice to use technology to improve human work or to use it primarily for economic profit, which led to job losses. As April 2024, we have still the possibility to use AI for improving the practitioner job, and the related patient



trust relationship and quality of care. We need to be aware that the human nature and the wish for economic profit is probably one of the most major barriers to this aim. We can build a future that considers the quality and the humanity of care more than the economic profit. This future is possible only if we trust it.

Funding This comment has not received any support from funding agencies.

Declarations

Conflict of interest The author had no conflict of interest.

Ethical approval This article does not contain any studies with human participants or animals performed by any of the authors. The author Jerome R. Lechien is also guest editor of the special issue on 'ChatGPT and Artificial Intelligence in Otolaryngology—Head and Neck Surgery'. He was not involved with the peer review process of this article.

References

- Gazzini L (2024) Is artificial intelligence true glory? Response to "Generative artificial intelligence in otolaryngology-head and neck surgery editorial: be an actor of the future or follower." Eur Arch Otorhinolaryngol. https://doi.org/10.1007/ s00405-024-08621-0
- Chubb J, Cowling P, Reed D (2022) Speeding up to keep up: exploring the use of AI in the research process. AI Soc 37(4):1439–1457. https://doi.org/10.1007/s00146-021-01259-0

- Lechien JR (2024) Generative artificial intelligence in otolaryngology-head and neck surgery editorial: be an actor of the future or follower. Eur Arch Otorhinolaryngol 281(4):2051–2053. https://doi.org/10.1007/s00405-024-08579-z
- Brennan N, Barnes R, Calnan M, Corrigan O, Dieppe P, Entwistle V (2013) Trust in the health-care provider-patient relationship: a systematic mapping review of the evidence base. Int J Qual Health Care 25(6):682–688. https://doi.org/10.1093/intqhc/mzt063
- Yıldız MS, Khan MM (2024) Factors affecting the choice of medical specialties in Turkiye: an analysis based on cross-sectional survey of medical graduates. BMC Med Educ 24(1):373. https:// doi.org/10.1186/s12909-024-05349-7
- Jabour AM (2020) The impact of longer consultation time: a simulation-based approach. Appl Clin Inform 11(5):857–864. https://doi.org/10.1055/s-0040-1721320
- Duron L, Ducarouge A, Gillibert A, Lainé J, Allouche C, Cherel N, Zhang Z, Nitche N, Lacave E, Pourchot A, Felter A, Lassalle L, Regnard NE, Feydy A (2021) Assessment of an AI aid in detection of adult appendicular skeletal fractures by emergency physicians and radiologists: a multicenter cross-sectional diagnostic study. Radiology 300(1):120–129. https://doi.org/10.1148/radiol. 2021203886
- Aleksandra S, Robert K, Klaudia K, Dawid L, Mariusz S (2024) Artificial intelligence in optimizing the functioning of emergency departments; a systematic review of current solutions. Arch Acad Emerg Med 12(1):e22. https://doi.org/10.22037/aaem.v12i1.2110

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

