The use of AI in ophthalmology white-space speciality application questions: an ethical dilemma

Wong, William Fergus Yu-Wen [1], Kaneshayogan, Mr. Harikesh [2]
Ophthalmology Department, Watford General Hospital

West Hertfordshire Teaching Hospitals NHS Trust

Aim

The aim of this project was to assess the use of artificial intelligence (A) in answering white-space questions specifically related to the application for ophthalmology specialty doctor within the West Hertfordshire Teaching Hospitals' NHS Trust. The retrospective cohort study examined AI use in 2 cycles within the 2024 application year to the role of ophthalmology specialty doctor specifically within the white space answer questions.

Introduction

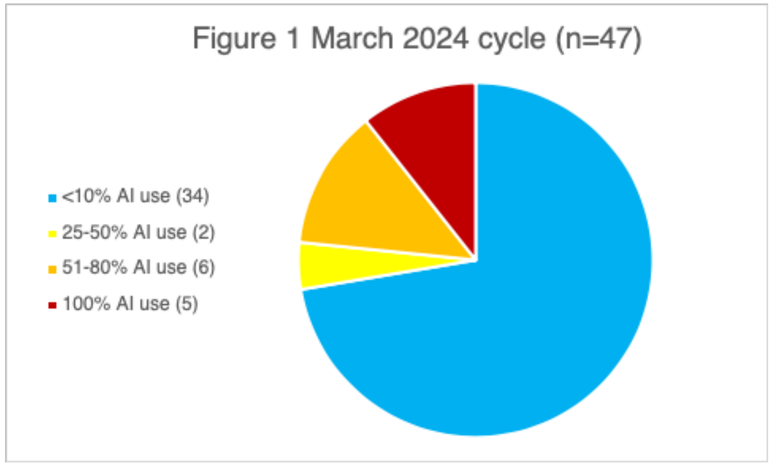
The advent of artificial intelligence (AI) in recent years has generated excitement and debate regarding it's potential to transform industries and influence new technologies(1). As such the medical field has been no exception to such advancement in this time. In particular AI applications such as ChatGPT, Google Gemini and Meta AI have been developed, improved and widely used for their ability to produce instant and in-depth responses to any question poised. In this study, we examine the use of AI in answering white-space questions (WSQs) in the specialty application for ophthalmology and the ethical ramifications of using such an accessible tool. In the first instance, AI generated responses risk not accurately reflecting a candidates specific qualifications or skill set and may otherwise present misleading information.

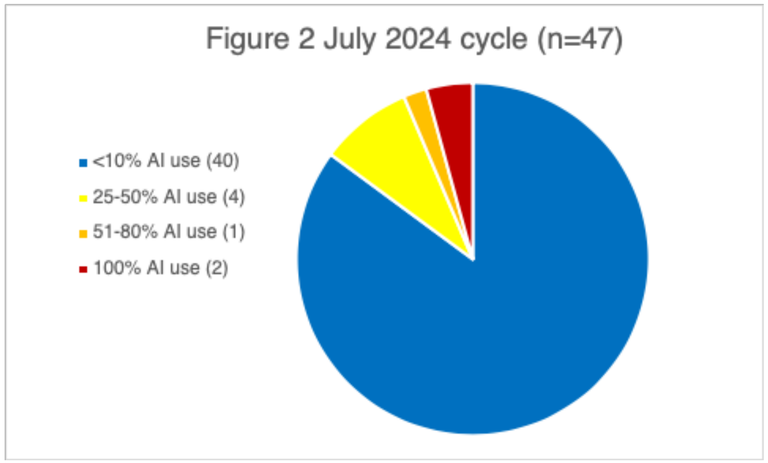
Methods

Data was collected from applications shortlisted for the vacancy of specialty doctor in ophthalmology within the West Hertfordshire Teaching Hospitals NHS Trust in the 2024 application window. From these applications, data was collected from white space questions (WSQs) related to procedures, leadership, teaching, research, team work and supporting information within the application. These answers were analysed and scanned using the GPTZero application Quick AI scan function. WSQ answers that returned with a more than a 10% AI generated score were then re-scanned using the Advanced AI scan function to verify.

Results

Over the 2 application cycles in 2024 to the specialty doctor in ophthalmology job vacancy, 94 individual applications (n=94) were shortlisted and reviewed for use of AI to generate responses to white space questions (WSQs). Of these 94 applications, 20 were reviewed to have at least 25% of WSQ content to be AI generated. Of those 20 flagged applications 14 returned with at least 50% of WSQ content to be AI generated and 7 individual applications showed 100% of WSQ answers to be AI generated. From this data collection over 7.3% of all shortlisted applications in 2024 that were reviewed demonstrated 100% AI generated WSQ answers.





Figures 1 and 2 demonstrating number of candidates per application cycle that demonstrated answers to white-space questions that showed <10% AI generated content, 25-50% AI content, 51-80% AI content and 100% AI generated content answer to questions (representing number of candidates per AI use bracket).

Discussion

In summary, the review and discovery of specialty applicants using AI such as ChatGPT to generated answers to WSQs in the application process poses an ethical and potential probity dilemma. At present no stipulation or regulations are in place that explicitly prohibit the use of such AI tools for applicants to generate answers to specialty application WSQs. However the ethical issue presented is that a false representation of the applicant may be read on paper (as generated by AI) that does not align with the doctor seen at interview in person. In this regard an applicant that did not use AI of any kind could lose their spot at interview to an applicant that has used entirely AI generated WSQ answers. Therefore clear and robust regulations are necessary across all specialty application processes to resolve such a dilemma at shortlisting(2). This could include amendments to making WSQs more specific ensuring an adequate depth of understanding in responses, declarations of transparency and formal AI monitoring tools.

Conclusions

In a wider context attitudes towards AI use especially within education may see change where AI is used as a tool to guide content creation by both students and teachers alike, rather than generate the finished product. With AI use becoming only more prevalent, an adaptation to application process policy is pertinent to address and guide it's appropriate use. As stated by the Health Foundation, governance within the NHS must 'fund the change, not just the technology(3) .

References

1. Bajwa J, Munir U, Nori A, Williams B. Artificial intelligence in healthcare: transforming the practice of medicine. Future Healthc J. 2021 Jul;8(2):e188-e194. doi: 10.7861/fhj.2021-0095. PMID: 34286183; PMCID: PMC8285156

2. Alowais, S.A., Alghamdi, S.S., Alsuhebany, N. *et al.* Revolutionizing healthcare: the role of artificial intelligence in clinical practice. *BMC Med Educ* **23**, 689 (2023). https://doi.org/10.1186/s12909-023-04698-z

3. Principles for Artificial Intelligence (AI) and its application in healthcare BMA 2024

Excellent patient care, together
Empowered Compassionate Professional Inclusive