

## Special Issue on Artificial Intelligence for Health Equity in Ophthalmology

# CALL FOR PAPERS

Artificial intelligence (AI) is poised to redefine the landscape of ophthalmology, holding the promise of ushering in a new era of precision and accessibility in eye care. As we are at the intersection of technological innovation and healthcare, the potential of AI to revolutionize diagnostics, treatment strategies, and patient outcomes in ophthalmology is immense. However, this transformative journey is not without its ethical and social implications, particularly with respect to health equity. The Journal of Ophthalmology is thrilled to announce a dedicated Special Issue, "Artificial Intelligence for Health Equity in Ophthalmology," aimed at unraveling the multifaceted dimensions of AI's role in eye care and ensuring that these advancements contribute to equitable health outcomes for all.

Integration of AI into ophthalmology brings about a spectrum of challenges that require careful consideration. One of the foremost hurdles is the inherent bias ingrained in AI systems, perpetuated by the biases present in the datasets upon which these systems are trained. This bias poses a significant risk of exacerbating existing disparities in eye care, disproportionately affecting underserved populations. Transparency emerges as another critical challenge, as the opacity of AI decision-making processes raises concerns about accountability and the potential for unintended harm. Additionally, the ethical conundrums associated with AI in ophthalmology, such as data privacy and security concerns, require a thorough exploration to establish robust guidelines for responsible AI deployment.

The Special Issue seeks to address these challenges and chart a course toward a more equitable future in ophthalmic AI. By inviting submissions that critically examine the ethical and social implications, we aim to foster a deeper understanding of how AI can be used to bridge gaps in eye care access. Our primary objectives include shedding light on innovative solutions to mitigate bias, improve transparency, and protect patient privacy. We are particularly interested in original research and review articles that offer new insights into the ethical and social implications of AI for health equity in ophthalmology and propose innovative solutions to the challenges of developing and deploying AI systems for health equity in ophthalmology. We also hope to explore the impact of AI on different groups of people and communities in ophthalmology, with a focus on health equity. Through this Special Issue, we endeavor to catalyze a nuanced dialogue that not only anticipates the challenges, but also propels the ophthalmic community toward responsible and equitable AI integration.

Potential topics include but are not limited to the following:

- ▶ Using AI to develop telemedicine platforms for eye care, train non-ophthalmologists to provide basic eye care, and develop low-cost diagnostic tools for eye diseases.
- ▶ Using artificial intelligence to develop new drugs and therapies for eye diseases such as glaucoma and diabetic retinopathy
- ▶ Using AI to develop personalized treatment plans for eye diseases
- ▶ Using artificial intelligence to improve the safety and efficacy of eye surgery.
- ▶ Addressing bias in AI systems
- ▶ Ensuring transparency and accountability in the development and use of AI systems
- ▶ Protecting the privacy and security of patient data;
- ▶ The impact of AI on the workforce in ophthalmology, with a focus on how AI can be used to reduce disparities in the quality of care:
- ▶ The role of AI in automating tasks and improving efficiency
- ▶ The potential for AI to displacement jobs in ophthalmology
- ▶ Strategies to ensure that AI is used to improve the quality of care of all patients, regardless of their socioeconomic status or race/ethnicity
- ▶ The role of AI in promoting social justice and equity in ophthalmology:
- ▶ Using artificial intelligence to identify and address disparities in access to eye care and outcomes
- ▶ Using AI to develop interventions to improve the social determinants of eye health
- ▶ Using AI to advocate for policies that promote health equity in ophthalmology

Authors can submit their manuscripts through the Manuscript Tracking System at <https://review.wiley.com/submit?specialIssue=319454>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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