



Critical Review of “Ethics & Governance of Artificial Intelligence for Health” by the World Health Organization (WHO)

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This analysis provides a critical review of the World Health Organization (WHO) online course 'Ethical and Governance of Artificial Intelligence for Health'. It provides a comprehensive exploration of the transformative potential of AI in health, with an emphasis on ethics and human rights. The course covers various aspects, including AI applications, ethical principles, resource allocation, bias, cybersecurity and environmental impact. It successfully combines theoretical concepts with practical applications, making it accessible to different audiences, including policymakers and healthcare professionals. The critical review highlights the course's strengths in raising awareness of critical issues but notes its limitations in providing concrete guidelines for ethical AI design and practical strategies for real-world implementation. Despite its theoretical foundation, the review suggests room for improvement by improving the course with more

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Abstract

This analysis provides a critical review of the World Health Organization (WHO) online course 'Ethical and Governance of Artificial Intelligence for Health'. It provides a comprehensive exploration of the transformative potential of AI in health, with an emphasis on ethics and human rights. The course covers various aspects, including AI applications, ethical principles, resource allocation, bias, cybersecurity and environmental impact. It successfully combines theoretical concepts with practical applications, making it accessible to different audiences, including policymakers and healthcare professionals. The critical review highlights the course's strengths in raising awareness of critical issues but notes its limitations in providing concrete guidelines for ethical AI design and practical strategies for real-world implementation. Despite its theoretical foundation, the review suggests room for improvement by improving the course with more actionable recommendations for those actively involved in the development and regulation of AI in healthcare. In summary, this review considers the analysis a valuable critique of the ethical challenges posed by AI in healthcare and emphasizes the need for careful governance in addressing these complexities.



The World Health Organization's online course on "Ethics & Governance of Artificial Intelligence for Health" provides a broad and up-to-date exploration of the immense potential of artificial intelligence (AI) to transform health care. The programme focuses on putting ethics and human rights at the forefront of how AI is designed, developed and implemented. The course provides a holistic perspective on the topic and is designed for a diverse audience, including policymakers, AI developers and designers, healthcare providers, and those involved in the regulation of AI technology in healthcare.

The programme begins with an in-depth look at current and emerging AI applications in healthcare, highlighting the significant impact of AI in improving health outcomes. A notable strength of this first part of the course is that it immediately and directly addresses ethical concerns, presented directly after the demonstration of real-world AI applications in healthcare. This approach effectively bridges the initial gap between theoretical concepts and practical applications, making the content more relatable and actionable. By exploring these key ethical principles, learners gain a deeper understanding of the ethical principles that apply to AI in healthcare. The course explores these key ethical principles and provides learners with a deeper insight into the ethical foundations that must guide AI in healthcare.

It also gives learners a thorough understanding of the ethics of resource allocation in healthcare. Here, the moral dilemmas and challenges facing healthcare decision-makers are well highlighted, emphasising the importance of addressing bias and discrimination in AI for health. The course also highlights the ethical and societal implications of biased algorithms.

Another successful aspect of the course is its focus on cybersecurity, as it draws attention to the frequent cyberattacks on the health sector and the critical need for effective regulation to protect health data and infrastructure. In addition, the programme reveals the significant influence of commercial companies in the healthcare sector. It presents a strong case study of Google's role during the COVID-19 pandemic, demonstrating how private companies can have a significant impact on public health. Through this programme, the learners also gain valuable insights into the relationship between AI and climate change. The course raises awareness of the intersection of technology and environmental responsibility, emphasising the importance of sustainable AI practices and their potential impact on environmental factors. In some modules, the content goes beyond theory to



provide practical insights into the complex world of AI in healthcare. It equips participants with technical understanding, explaining complex terms such as microtargeting and data triangulation, which are essential for understanding the nuances of AI in healthcare. The course also explores the complexities and challenges of establishing accountability for AI-related harm. Learners will gain a deeper understanding of the intricacies and recognise the need for robust accountability mechanisms.

A major strength of the course is that it includes some practical suggestions for ethical design in healthcare. However, it is not without its limitations, as the programme lacks more of these practical recommendations. While it excels in providing a theoretical foundation, it falls short in providing concrete guidelines for the safe use of AI in healthcare. These recommendations would provide learners not only with theoretical knowledge but also with more actionable guidance on how to ensure that AI applications in healthcare meet the highest ethical standards. This resource would be invaluable to those actively involved in the design, development, use and regulation of AI technology in healthcare.

The limitations of the course also become apparent when it provides limited insight into the real-world implementation of ethical principles, leaving participants with questions about how these principles are applied in practice. In this context, they could benefit from more concrete examples to illustrate abstract concepts and provide them with practical strategies to address important challenges such as the digital divide, cybersecurity and environmental sustainability. A more comprehensive analysis of the environmental impact of AI, in particular its contribution to carbon emissions, together with strategies to mitigate this impact, would provide a more holistic view of the impact of AI. Additionally, some modules include an introduction to various committees and laws related to AI in healthcare, but it lack clarity in explaining the relative importance of these entities and how they interact.

In conclusion, the WHO's online course is a very useful introduction to the complex intersection of AI and healthcare ethics and governance. It effectively highlights the potential for AI to revolutionise healthcare, while underlining the critical need for ethical considerations and human rights. The programme provides learners with a more in-depth knowledge base. Still, there is room for improvement in providing practical, real-world guidance to address the multiple challenges and opportunities presented by AI in healthcare.



The Critical Reviews focus on recent studies and discoveries in medicine and science that may impact patient care. Our editors and authors aim to stimulate thoughts and reflections on new developments and interventions. While our opinions are subjective, we hope this service is helpful. We welcome comments from our readers!

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Course Information

<https://openwho.org/courses/ethics-ai>