



Integrating ethics and governance into the design of artificial intelligence tools for health. Case study: Cervical cancer screening

The Defeat NCD Partnership

📄	:	Course
📄	:	Web-based
📄	:	3 Hours
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📄	:	US\$0.00
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This course builds upon the [WHO guidance](#) and adapted introductory online course [Ethics and Governance of Artificial Intelligence for Health](#), aiming to guide programmers, designers, data scientists and principal investigators in integrating ethical considerations and effective governance frameworks throughout the full artificial intelligence (AI) lifecycle.



- Identify and describe the ethical challenges and risks that can materialize during the AI lifecycle;
- Assess the ethical challenges and risks by raising relevant issues or questions throughout the decision-making process in all phases of the AI lifecycle; and
- Mitigate ethical challenges and risks by making informed decisions while integrating ethical, medical, epistemic, societal, and political considerations and values.



Artificial intelligence (AI) has enormous potential for strengthening the delivery of healthcare and medicine and helping countries achieve universal health coverage. For AI to have a beneficial impact on public health and medicine, considerations of ethics and human rights must guide decisions made in all phases of the design, development, deployment, and maintenance of AI tools for health. New approaches to software engineering arising in the past decade have moved beyond an appeal to abstract moral values, and improvements in design methods are not merely upgraded programming techniques. Methods have been developed to support the effective, systematic, and transparent integration of ethical values in tool design.

This course aims to (a) trace steps that should be taken to ensure that AI tools designed, developed and tested are used for the benefit of patients and providers when implemented, (b) facilitate learning through a case-based approach to elicit participants to make, support and defend value-based decisions in all phases of the AI lifecycle and (c) ensure that participants are aware of the broader ethical obligations that must be satisfied by other individuals and entities that participate in the AI tool lifecycle.

This course offers the flexibility of being pursued independently or in conjunction with the [introductory online learning](#) already available. For a comprehensive and enriching educational journey, we recommend completing the introductory course before enrolling in this one.



Approximate course duration: 2.5 hours

Languages

This course is available in the following languages:

[English](#)

Content Warning: This course may contain images, videos, and multimedia materials related to healthcare that may include graphic depictions of medical conditions, surgical procedures, and other clinical content. These materials are intended for educational purposes to enhance understanding of real-world medical scenarios and are essential for the comprehensive learning experience.

Viewer discretion is advised. If you find any content distressing, you may pause or skip the material as needed.

Assessment & Awards

You will receive a Confirmation of Participation upon completing all the modules in this course. Please note that this award does not serve as a professional qualification.



Who this course is for

The target audience for this course comprises individuals involved in data creation, data acquisition, model development, model evaluation, and model deployment of AI tools for health applications, whether they work in public, private or not-for-profit sectors.

It is expected to be of interest to (a) full stack developers, (b) software engineers, (c) data scientists, (d) front and back-end specialists, and (e) principal investigators and/or site investigators, along with healthcare professionals who engage in the design development, deployment, and implementation of AI tools.



Guidance Note

The content of this course has been validated, verified, and is owned by the WHO Digital Health and Innovation unit. This course is not a WHO Academy co-produced course. In case of any concerns or feedback on the course content, please share your feedback in the survey form at the end of this course.

Browser and device compatibility

For the best experience, we recommend using the latest version of Chrome, Firefox, Safari, or Microsoft Edge to access the courses.

Produced by WHO Digital Health and Innovation team.