Online learning and beyond: Ethics & Governance of Artificial Intelligence (AI) for Health

Ursula (Yu) Zhao
Technical officer
Strategy and governance unit
Department of Digital health and innovation

World Health Organization

WHO Guidance on Ethics and governance of artificial intelligence for health

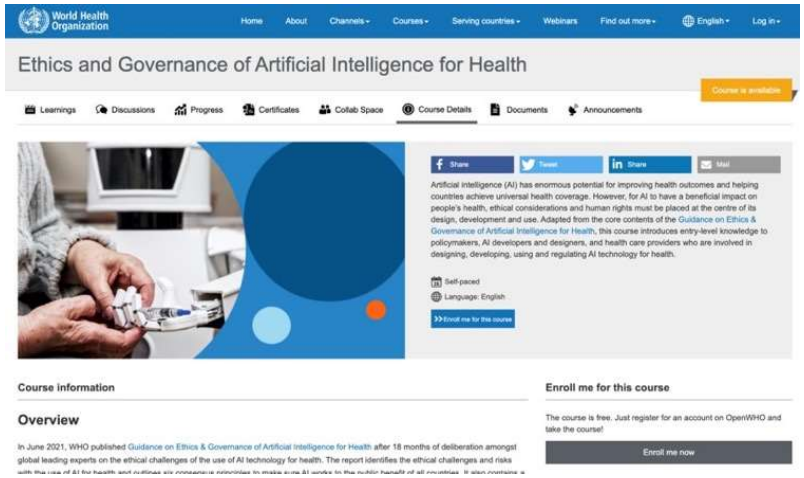
- Published in June 2021
- Identifies **ethical challenges** in the use of AI for health and governance opportunities
- 6 **consensus principles**
- 47 **recommendations** for policymakers, AI designers and healthcare providers to implement.

https://www.who.int/publications/i/item/9789240029200

WHO Guidance implementation: Online course

…Accelerate translating knowledge from the guidance into actionable information…

- **Entry-level** knowledge on the **role of AI in health care**, its **opportunities**, and the **challenges** on the ethical use of AI technology for health
- Designed to support **governments, AI technology developers** and **healthcare providers**
- Live on



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

Course structure

3.5 hour-course

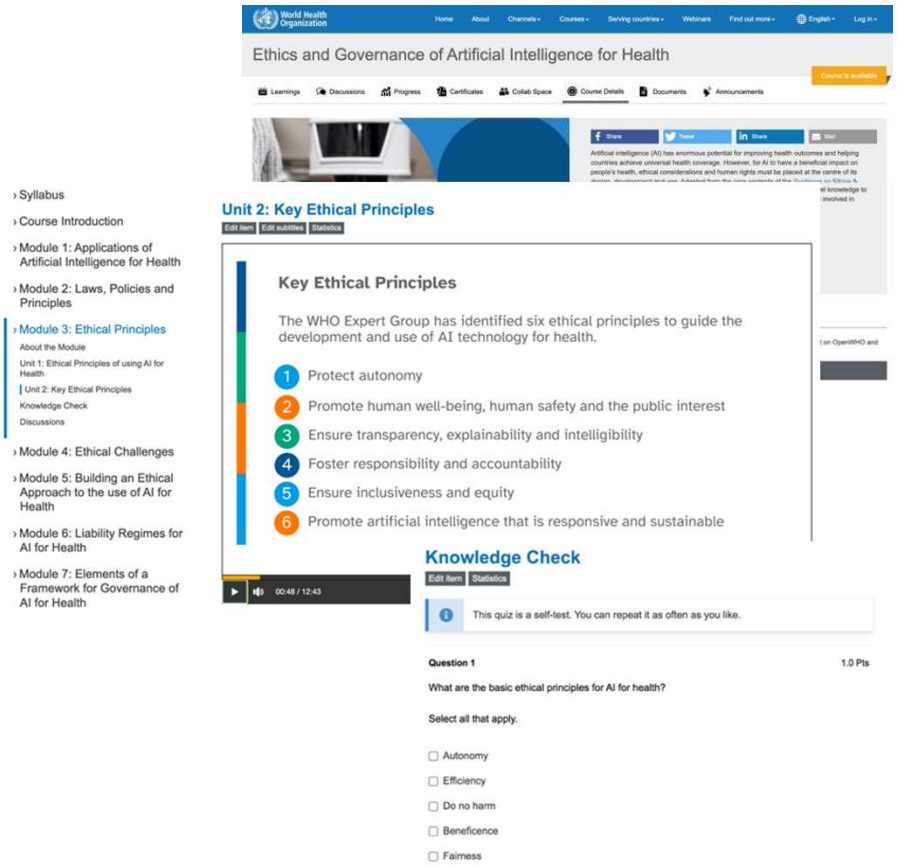
7 modules and **3 practical guidance** sections **(checklists)** for the target audience

Pre- and post-course surveys

Video presentations by leading experts

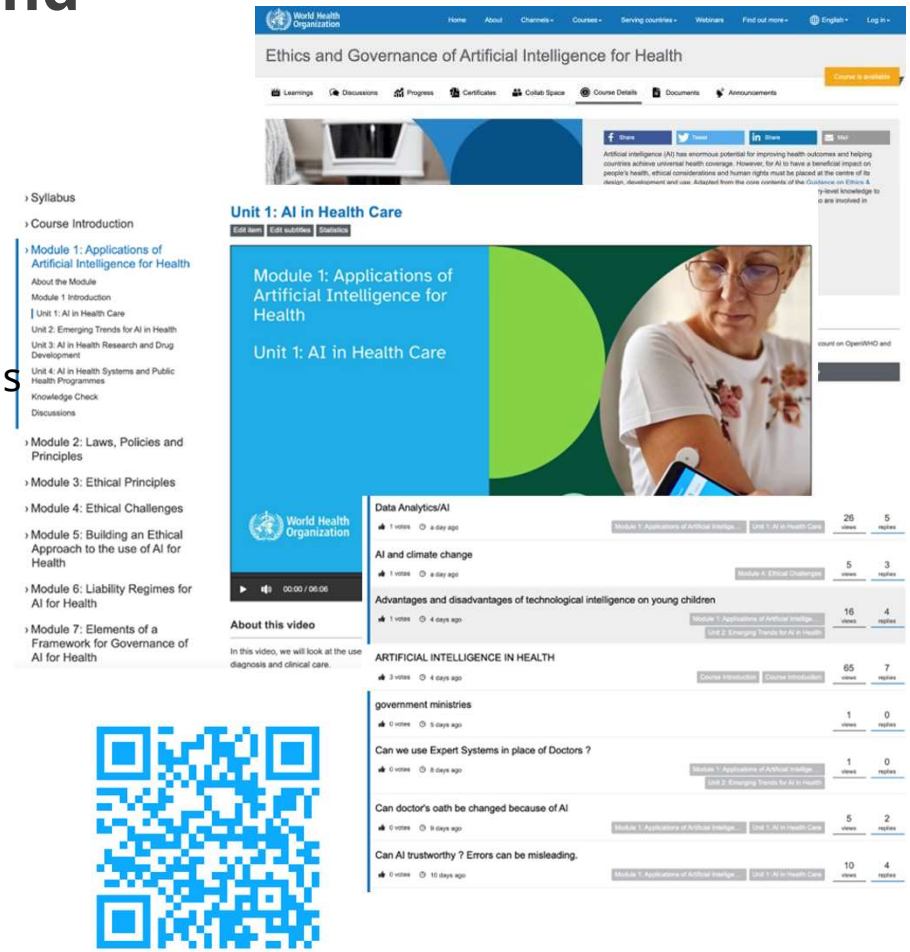
Reading materials and **useful links**

Knowledge Checks & Final Course Assessment



Introductory course on ethics and governance on AI for health

- 3.5 hours, 8 modules and 3 practice checklists
- Adapted from the guidance documents
- Tailored as introduction to AI related considerations
- **25 000+ learners** enrolled since June 2022
- From **178+ countries**
- **7000+ record of achievement**
- 1700+ ongoing discussions in the forum



Continued knowledge transfer in various formats

1 Regional workshops

2 Courses and case studies

WHO online introductory course on ethics and governance of AI for health

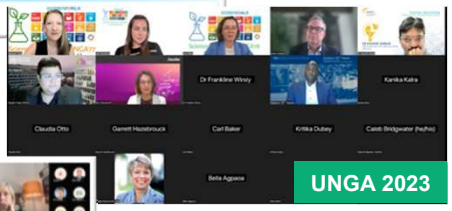
AMARA Case Study

User-designed

3 Knowledge dissemination

TB Union Conference

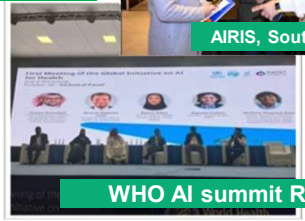
Sexual & Reproductive Health Meeting, Geneva



UNGA 2023

Expert Group Consultation

AIRIS, South Korea



WHO AI summit Riyadh

Meeting Design Overview
Global Initiative on AI for Health

DAY 0 **WORKSHOP DAY**	• **Technical** and **policy-making** presentations. • Provide an **overview of AI in health** by the three agencies and partners. • Set the **groundwork** for the subsequent three days.
DAY 1 **ENABLING DAY**	• Flash presentations on **achieved** and **ongoing work**. • Discussions on the **current state of AI in health**. • Jump into **co-creation** to address **health needs**, **gaps**, and **governance challenges**.
DAY 2 **FACILITATING DAY**	• **Stakeholders'** presentations on their **roles in health**. • Specialized interventions for **in-depth insights**. • **Community** breakout sessions for **collaborative planning**.
DAY 3 **IMPLEMENTING DAY**	• **Audience engagement** in a playful yet focused **exploration of AI applications** through the '**AMARA**' case study. • Innovative **AI-driven solutions** from ***Ideathon*** **presentations**. • Strategies for **mobilizing innovation** and **ensuring intellectual property** rights.

Knowledge transfer timeline

ENABLE

Global strategy on digital health endorsed at73rd WHA

SO3: Strengthen governance for digital health at global, regional and national levels

IMPLEMENTATION

Introductory course production started

FACILITATION

Course LIVE on OpenWHO.org

3.5 hours
8 modules
3 practice checklists

Workshop with WHO-ITU AI4H Focus group

Production of the spin-off course for AI developers started

First WHO Global AI summit at Riyadh

Creation of facilitator groups around the AI governance

2020 | 11 | 2021 | 06 | 12 | 2022 | 06 | 10-12 | 2023 | 06 | 10-11 | 2024 | NOW

WHO Guidance on Ethics and governance of artificial intelligence for health

A two-year development process based on the collective views of WHO multidisciplinary Expert Group

AMARA case study developed

A fictional country where AI for health is emerging…

Regional workshops

Spin-off AI developer course LIVE

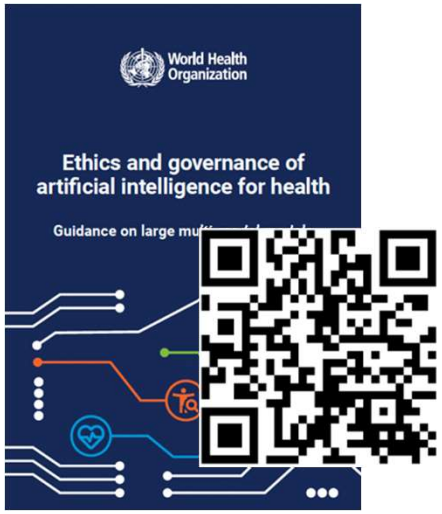
Global Initiative on AI for Health

Over 150,000 + Downloads

Ethics and Governance of Artificial Intelligence for Health

Generating Evidence for Artificial Intelligence-based Medical Devices

Regulatory Considerations on Artificial Intelligence for Health



Ethics and Governance of AI for Health: Large Multi-Modal Models

WHO Online introductory course on Ethics and governance of AI for health

How could we adapt the knowledge for Traditional Medicine?

How could we adapt the knowledge for Traditional Medicine?

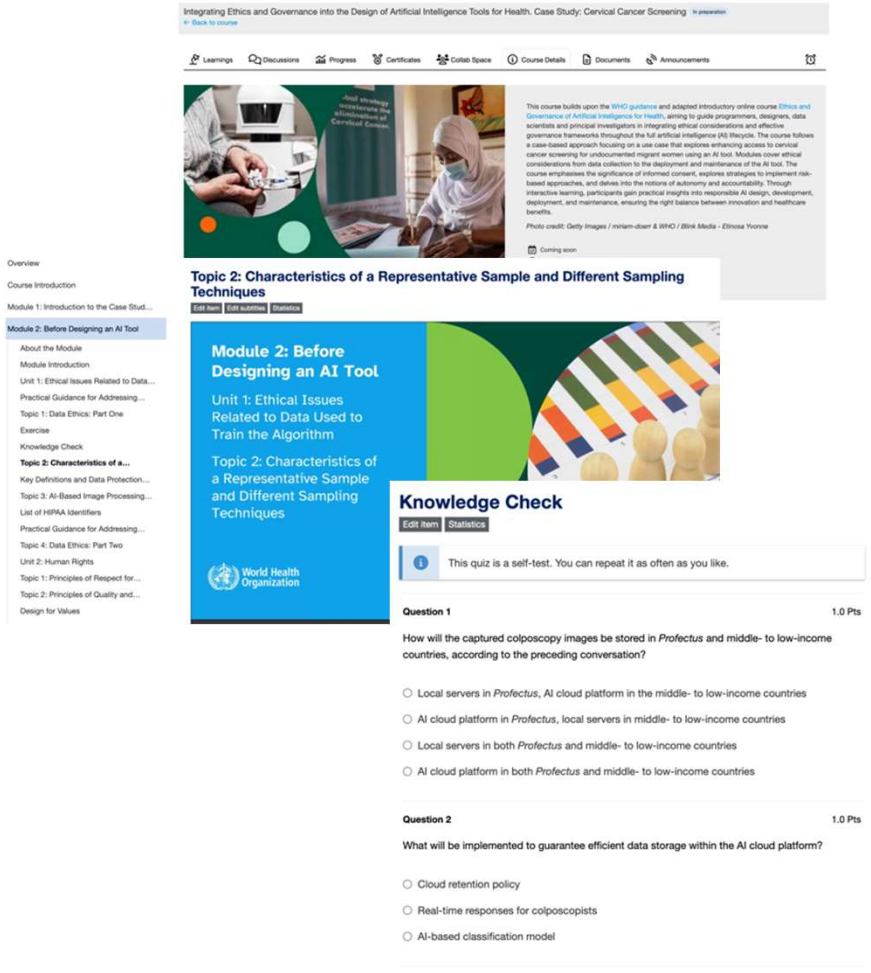
Potential ideas

1. Tailored spin-off learning modules
2. AMARA 2.0 scenario and personas
3. Thematic seminars, workshops and Ideathon with TM stakeholders
4. Dedicated topic group side event under Global AI / TM summit
5. …

Spin-off course for AI developers

Integrating Ethics and Governance into the Design of Artificial Intelligence Tools for Health. Case Study: Cervical Cancer Screening

- Cervical cancer case study
- Co-drafted between WHOCC and subject experts
- Tailored for AI developers
- Provide tangible contexts to public health professionals
- Follow the AI life-cycle



AMARA 2.0 personas

- Reference from the upcoming mapping review
- Adapt new personas from the TM world
- Inject TM relevant scenarios with policy and public health dilemma
- Create specific context where TM exists

What would an AI-TM Ideathon/Editathon look like?

- Solution oriented? Process oriented?
- Part of the offline training contents to the curriculum?
- Part of the activity under the Global AI summit?
- Students only? Multi-discipline team with academic and practitioners?

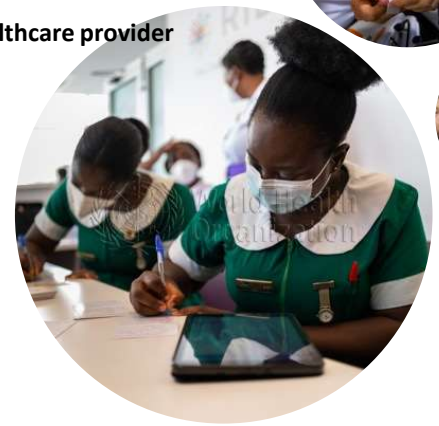
What does the knowledge value chain of AI and TM look like in the next five years?

What are the learning priorities for the TM community when coming to ethics and governance of AI for health?

Learners’ identity and testimonies

AI developer, designer or technology manager

Healthcare provider



Government official or policymaker

…Very good course, […] Thank you very much for offering us new knowledge on artificial intelligence applied to health systems… May 2022

…Seria injusto não externar minha satisfação com vocês da WHO e colaboradores em relação a este Curso "Ethics and Governance of Artificial Intelligence for Health”… June 2022

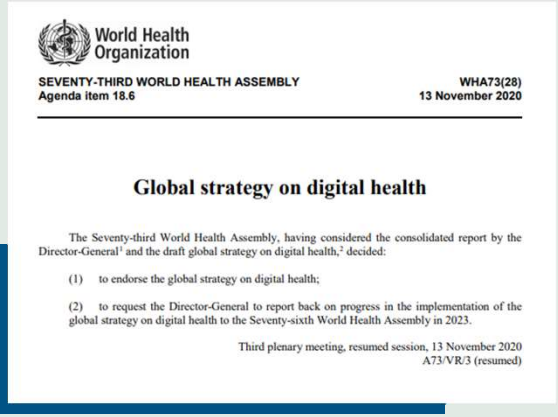
…This course is a good opportunity to prepare those interested in this great advance in medicine, which will undoubtedly mark medicine in the 21st century…

We must ensure the
Digital Health revolution
is safe, sustainable
and leaves no one behind.

Thank you

World Health Organization

4 Strategic Objectives



World Health Organization

SEVENTY-THIRD WORLD HEALTH ASSEMBLY
Agenda item 18.6

WHA73(28)
13 November 2020

Global strategy on digital health

The Seventy-third World Health Assembly, having considered the consolidated report by the Director-General[1] and the draft global strategy on digital health,[2] decided:

(1) to endorse the global strategy on digital health;

(2) to request the Director-General to report back on progress in the implementation of the global strategy on digital health to the Seventy-sixth World Health Assembly in 2023.

Third plenary meeting, resumed session, 13 November 2020
A73/VR/3 (resumed)

SO1 Promote **global collaboration** and advance the **transfer of knowledge** on digital health

SO2 Advance the **implementation** of national digital health strategies

SO3 Strengthen **governance** for digital health at global, regional and national levels

SO4 Advocate **people-centred health systems** that are enabled by digital health

Global Initiative on AI for Health (GI-AI4H)

World Health Organization

ITU

WIPO

Enable

Standards, Governance, Policies, and Guidance on evidence-based AI4H

Facilitate

Pooled Investments & a global community of experts

Implement

Sustainable models of AI programs implementation at the country level

Launched on July 6, 2023!