

AI Literacy Certifications

Planetary Health Accord Implementation Framework

Section: Tools - AI Literacy Certifications

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Purpose and Scope

The AI Literacy Certifications equip stakeholders in the Planetary Health Accord with the knowledge and skills to ethically and effectively use AI-driven health systems. Designed for health workers, community leaders, traditional healers, policymakers, and technologists, these certifications ensure that AI serves health equity, respects cultural sovereignty, and aligns with One Health principles. By fostering transparency, bias auditing, and community oversight, the certifications empower users to harness AI as a tool for liberation rather than oppression, bridging modern technology with traditional wisdom.

Objectives:

- Enable stakeholders to understand, deploy, and oversee AI health tools with confidence and ethical clarity.
- Ensure AI systems are culturally competent, accessible, and free from bias through community-driven validation.
- Promote equitable access to AI literacy, prioritizing marginalized communities and low-resource settings.
- Support the integration of traditional healing knowledge with AI diagnostics, respecting indigenous sovereignty.

Certification Levels

The AI Literacy Certifications are structured into three tiered levels to accommodate diverse roles and expertise, ensuring scalability and inclusivity across global health systems.

1. Foundational AI Literacy (Level 1)

- **Target Audience:** Community Health Legions, community members, traditional healers, patients.
- **Focus:** Basic understanding of AI in healthcare, ethical implications, and community oversight.
- **Duration:** 10 hours (flexible delivery over 2-4 weeks).

- **Outcomes:** Ability to use AI health tools, recognize bias, and advocate for community control.

2. Intermediate AI Practitioner (Level 2)

- **Target Audience:** Clinicians, public health workers, community health coordinators, regional hub staff.
- **Focus:** Practical application of AI diagnostics, bias auditing, and integration with traditional practices.
- **Duration:** 20 hours (flexible delivery over 4-6 weeks).
- **Outcomes:** Competence in deploying AI tools, interpreting outputs, and ensuring ethical implementation.

3. Advanced AI Governance and Innovation (Level 3)

- **Target Audience:** Policymakers, technologists, Global Health Equity Council members, AI ethics specialists.
- **Focus:** AI system design, governance, bias mitigation, and community-driven innovation.
- **Duration:** 40 hours (flexible delivery over 8-12 weeks).
- **Outcomes:** Leadership in AI health system oversight, policy development, and ethical innovation.

Core Competencies

Across all levels, certifications emphasize competencies aligned with the Planetary Health Accord's principles, ensuring AI supports health equity and planetary well-being.

1. Understanding AI in Healthcare:

- How AI functions in diagnostics, epidemic prediction, and treatment optimization.
- Role of federated learning and edge computing in privacy-preserving health systems (see [Technology and Data Infrastructure](#)).
- Limitations and risks of AI, including bias and over-reliance.

2. Ethical AI Deployment:

- Principles of transparency, accountability, and community control in AI systems.
- Application of AI ethics protocols and kill switch mechanisms for harmful systems.
- Respect for indigenous data sovereignty and cultural protocols in AI training.

3. Bias Auditing and Fairness:

- Identifying and mitigating algorithmic bias across demographics, regions, and cultures.
- Conducting community validation to ensure AI fairness (aligned with [AI Bias Audit Framework](#)).
- Interpreting AI confidence scores and decision-making processes.

4. Cultural Competency and Traditional Knowledge:

- Integrating traditional healing practices with AI diagnostics respectfully.
- Protecting indigenous knowledge from appropriation during AI development.
- Adapting AI interfaces to local languages and cultural health concepts.

5. Community Oversight and Advocacy:

- Engaging communities in AI governance through health assemblies and digital democracy tools.

- Advocating for equitable AI access and offline-first solutions in low-resource settings.
- Reporting AI failures transparently to maintain trust and accountability.

6. Planetary Health Integration:

- Using AI to monitor One Health connections (human, animal, environmental health).
- Supporting climate-adaptive care and pandemic prevention through AI early warning systems.
- Aligning AI applications with ecosystem restoration and biodiversity preservation.

Training Modules

Each certification level includes modular training, designed for flexibility and cultural adaptation, with practical exercises and case studies drawn from Health Sanctuary nations.

Level 1: Foundational AI Literacy

- **Module 1: What is AI in Healthcare?** (2 hours)
 - Overview of AI applications (e.g., diagnostic imaging, epidemic tracking).
 - Real-world example: Rwanda's RapidSMS AI contact tracing (see [Technology and Data Infrastructure](#)).
 - Exercise: Discuss AI's role in local health challenges.
- **Module 2: Ethics and Community Control** (3 hours)
 - Principles of ethical AI use and community sovereignty.
 - Case study: Pacific Digital Health Sovereignty Initiative (2027-2029).
 - Exercise: Role-play community oversight of an AI diagnostic tool.
- **Module 3: Recognizing and Reporting Bias** (3 hours)
 - Identifying bias in AI outputs (e.g., misdiagnosis in diverse populations).
 - Community validation processes and reporting protocols.
 - Exercise: Analyze a mock AI diagnostic report for bias.
- **Module 4: AI and Traditional Healing** (2 hours)
 - Respectful integration of AI with traditional practices.
 - Example: Andean Health Visualization Sovereignty Project (2027-2032).
 - Exercise: Design a culturally appropriate AI interface.

Level 2: Intermediate AI Practitioner

- **Module 5: Deploying AI Diagnostics** (5 hours)
 - Using AI tools for skin conditions, respiratory diseases, and eye diagnostics.
 - Interpreting visual explanation interfaces and confidence scores.
 - Exercise: Apply AI diagnostic tool to a patient case study.
- **Module 6: Bias Auditing in Practice** (5 hours)
 - Conducting quarterly bias audits with community input.
 - Case study: AI misdiagnosis in low-resource settings.
 - Exercise: Perform a mock bias audit on a dataset.
- **Module 7: AI in Crisis Response** (5 hours)
 - Using AI for pandemic contact tracing and disaster coordination.

- Implementing kill switch protocols during crises.
- Exercise: Simulate AI triage in a mock health emergency.
- **Module 8: Cultural and Linguistic Adaptation** (5 hours)
 - Customizing AI tools for local languages and cultural contexts.
 - Collaborating with traditional healers for complementary diagnostics.
 - Exercise: Adapt an AI tool for a specific cultural community.

Level 3: Advanced AI Governance and Innovation

- **Module 9: AI System Design and Governance** (10 hours)
 - Designing federated learning networks with community control.
 - Establishing AI governance frameworks for Regional Health Hubs.
 - Exercise: Draft an AI governance policy for a Health Sanctuary nation.
- **Module 10: Ethical Innovation and Open-Source AI** (10 hours)
 - Developing open-source AI health tools with community priorities.
 - Case study: India-Brazil-Africa mRNA vaccine AI collaboration.
 - Exercise: Propose an open-source AI health innovation.
- **Module 11: Advanced Bias Mitigation** (10 hours)
 - Leading AI Red Teams for global bias auditing.
 - Implementing quantum-resistant encryption for AI data security.
 - Exercise: Design a bias mitigation strategy for a global AI system.
- **Module 12: Planetary Health AI Applications** (10 hours)
 - Using AI for One Health surveillance and climate health adaptation.
 - Integrating traditional environmental knowledge into AI models.
 - Exercise: Develop an AI early warning system for climate health risks.

Accessibility and Delivery

To ensure equitable access, certifications are designed for diverse contexts, aligning with the framework's digital divide mitigation strategies (see [Digital Divide Mitigation](#)).

- **Multilingual and Multicultural:** Training materials available in UN official languages, with priority for local language adaptations in Health Sanctuary nations (e.g., Kinyarwanda in Rwanda, Quechua in Andean regions).
- **Offline-First Solutions:** Modules delivered via QR code summaries, paper manuals, and community radio for low-connectivity areas.
- **Community-Based Delivery:** Facilitated by Community Health Legions and traditional healers, with training hubs in Regional Health Hubs.
- **Accessible Formats:** Audio, braille, and sign language options for users with disabilities, plus sensory-appropriate interfaces for neurodivergent learners.
- **Intergenerational Approach:** Elder-youth mentorship pairs to support learning, combining traditional knowledge with modern AI literacy.
- **Subsidized Access:** Free for all participants, funded by the Global Health Solidarity Fund (see [Financing Mechanisms](#)).

Assessment and Certification

- **Assessment Methods:**
 - **Level 1:** Quizzes, group discussions, and practical exercises (e.g., identifying bias in a mock AI report).
 - **Level 2:** Case study analyses, simulated AI deployments, and bias audit reports.
 - **Level 3:** Policy proposals, innovation designs, and leadership in mock governance scenarios.
- **Community Validation:** Assessments include input from community health assemblies to ensure cultural relevance and practical applicability.
- **Certification Issuance:** Digital badges on blockchain-based platforms for secure, portable credentials, with paper certificates for offline users.
- **Recertification:** Required every 3 years to stay updated on AI advancements, with refresher modules tailored to regional needs.

Integration with Framework

The AI Literacy Certifications are a cornerstone of the Planetary Health Accord's technology strategy, linking to key sections:

- **Technology and Data Infrastructure:** Supports ethical deployment of AI-driven systems and federated learning networks.
- **Community-Centered Healthcare:** Empowers Community Health Legions to use AI tools with cultural competency (see [Community-Centered Healthcare](#)).
- **Ethical Technology Governance:** Ensures bias auditing and community oversight align with governance protocols (see [Ethical Technology Governance](#)).
- **Health Literacy Initiative:** Complements broader health literacy efforts by building AI-specific skills (see [Health Literacy](#)).
- **Spiritual Framing:** Integrates traditional healing wisdom into AI training, respecting indigenous cosmologies (see [Spiritual Framing](#)).

Call to Action

Stakeholders of the Planetary Health Accord, embrace AI literacy as a tool for health equity and planetary healing:

- **Health Workers:** Enroll in Level 1 or 2 certifications to enhance care delivery with ethical AI tools.
- **Community Leaders:** Lead Level 1 training to empower communities in AI oversight and advocacy.
- **Traditional Healers:** Collaborate on culturally adapted modules to integrate AI with indigenous practices.
- **Policymakers and Technologists:** Pursue Level 3 to shape AI governance and innovation for global health.
- **Start Now:** Access the [Planetary Health Starter Kit](#) to launch AI literacy programs in your community.

Together, we will ensure AI serves justice, respects cultural wisdom, and heals our planet. Join the movement to make AI a force for good in health transformation.

Access the Certifications: Available in PDF and editable markdown at [Tools Library](#).

Feedback: Share input via [globalgovernanceframeworks@gmail.com].

Related Resources: Explore [Blockchain Implementation Guide](#) and [AI Ethics Protocols](#) for complementary tools.