

R-meeting, 24 March-2023

Source:	WG-DAISAM	
Title:	Policy framework design for the standardization of AI-for-health assessment platform as a global digital public good	
Purpose:	Discussion	
Contact:	Pradeep Balachandran	E-mail: pbn.tvm@gmail.com
Abstract:	This presentation is about the project proposal for developing a policy framework for the standardization of FG-AI4H AI-for-health assessment platform to serve as a global digital public good.	

ITU-WHO AI4H Assessment Platform as a Global Public Good

Policy Framework Purpose: To serve as a [ITU/WHO policy tool](#) for the ministries of information technology / ministries of health / regulators of member states with the aim of providing systematic guidance on the [standardized procedure and steps needed to adopt and/or adapt the AI-for-health assessment platform](#) to their country specific requirements

UN SDG Relevance: The standardization policy scope has strong relevance in achieving the goals and targets of the [UN SDG 3](#) (Good health and well being) in terms of [policy support for the standardization of accessible and affordable global health information systems and services](#) to support Universal Health Coverage

Future Global Initiative on AI for Health

[Aiding the vision by translating the FG resource base to policy action plans](#)



Enable

- Norms, guidance, standards
- Governance (regulation, ethics)
- Surveillance, research and evidence
- Data sharing



Facilitate

- Knowledge sharing between countries
- Cooperation between all stakeholders
- Pool funding



Implement

- Scale program in countries
- Capacity building for AI for health programs
- Build sustainability models

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Motivation:

- Several AI regulations and policies(especially the EU AI Act)are set to take effect in 2023.
- At the global level, there is growing consensus that the national governments should provide regulatory sandboxes, conduct ex-ante technology assessments and ex-post regulatory evaluations of AI based products .
- Globally, there are many efforts currently pursued in the development of regulatory sandbox models (NDHB, FDA-Software Pre-Cert, UK's NHS, etc apart from ITU-WHO-AI4H OCI Project)

Global Relevance:

- The AI4H assessment platform as a UN computing infrastructure at the global level, is envisaged to connect large number of clinics, doctors and AI/ML domain experts as user groups.
- Need for integration / portability / alignment of the digital health services platform with country specific / national health information systems

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Country level (mostly LMICs) challenges and gaps:

- Reliable regulatory compliance of global AI4H products with the existing national/regulatory guidelines of the target country is an *cost intensive /expensive process*
- Lack of *standardized evaluation frameworks* to perform *technology assessment, cost-benefit analysis, cost-effectiveness analysis, risk-benefit analysis*, etc of AI4h implementation outcomes
- Country specific digital technology platform architectures *not fully compliant with interoperability standards* to support technical and structural integration of AI4H technologies into existing national level systems and application frameworks and to assess (*call for FHIR compliance*)
- Country specific technology infrastructure systems do *not fully support an integrated data collection mechanism* to serve big data based AI4H training (e.g. multi-modal data collection) (*call for federated learning*)
- Lack of *prototyping facilities and technology certification & transfer mechanisms* for nation-wide scaling and deployment of AI4H technologies(*call for regulatory sandboxes*)
- Lack of *adequate capacity building measures* on the *responsible use AI based technologies* for public services in general (*call for platform education and training*)

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AI4H Assessment (OCI) Platform : Potential capabilities as a digital public good

- ✓ Service Oriented Architecture
- ✓ Software-as-a-service (SaaS) / Platform-as-a-service (PaaS) based deployment architecture
- ✓ Open Code and Open Standards based architecture
- ✓ Data lifecycle management support(data storage and data federation protocols)
- ✓ Federated learning and data catalogue service
- ✓ Integrated regulatory sandbox
- ✓ Reference library for AI4H technical standards, good practice guidelines
- ✓ Integrated support for AI4H Model development (design-develop-deploy-optimize processes)

Prospective partners & stakeholders

- government agencies, & non-governmental organizations, UN agencies
- startup incubators & accelerators, small and medium enterprises, entrepreneurs , funders, investors

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Proposed standardization policy framework: Specific objectives to address the following:

- How the ITU-WHO OCI AI4H Assessment Platform-as-a-Service can be transformed into an standards complaint cost-effective service delivery model (global public good) to member states as an alternative to the existing highly defragmented, expensive proprietary infrastructure platforms to conduct forecast based technology assessments and actual regulatory evaluations of AI4H products ?
- How the proposed policy framework can guide and support governments and regulators with evidence based policymaking for the standardization of AI-for-health assessment platform to serve as a global public good

Policy framework design:

Policy design shall broadly cover the following:

- ✓ Define the policy setting (political and institutional context e.g EU to begin with)
- ✓ Perform stakeholder analysis, mapping by analyzing the actor type, role, interest, power , institutional structures and resources

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Policy framework design(contd...):

✓ Define the **analytical framework** to characterize the following **policy dimensions**:

- Data and technology governance
- Standards Development
- Technology Infrastructure
- Interoperability
- Quality assurance
- Digital skills competency building
- Risks, Fairness and Bias
- Business models
- Institutional Framework
- Partner and stakeholder collaboration
- Regulation and legal support
- Technology transfer and Licensing
- Liability
- Change management
- Cost and benefits
- Social Implications
- Other dimensions as deemed fit

✓ Define **policy monitoring indicators** and evaluation criteria and metrics

✓ Evaluate **mechanism** for time bound **implementation** of policy

✓ Evaluate **enablers / factors** for successful **policy acceptance**

✓ Evaluate **mechanisms** to establish **multi-stakeholder coordination and multi-stakeholder governance** of global public good

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Project Schedule

No.	Activity / Task	Deliverable	Timeline (Tentative) (Year-2023)
1	Standardization literature survey and Requirements analysis	– Critical review report with gap / need analysis	March 15 – April 30
2	Qualitative data collection on stakeholder views and recommendations , processing and analysis	– Stakeholder analysis report	April 5–April 30
3	Data analysis results interpretation / mapping to policy formulation	– Data quality assurance report – Analytical codebook	April 15 – May 30
4	Policy framework design	– Analytical framework design document with evaluation criteria, processes and metrics	April 30– July 30
	TBD	TBD	TBD

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Thank you