PS 3.4

EQUITY AND ACCOUNTABILITY IN DIGITAL HEALTH AND AI: ADDRESSING RISKS, DIGITAL HEALTH FOUNDATION GAPS, AND ADVANCING OPEN AND LOCAL SOLUTIONS

| BACKGROUND

Digital technologies and AI are transforming healthcare delivery worldwide, especially in low-resource and emergency settings. However, without **proper governance, investment, architecture design and open solutions and standards** they risk introducing economic, ethical, and social asymmetries, potentially placing vulnerable populations at harm. At a global scale, countries seeking to benefit from digital health face challenges of: **data fragmentation**, **redundant investments**, **non-interoperability, non-local solutions of unknown quality that are difficult to scale and sustain**.

This session will explore the economic, ethical, and social asymmetries that, if not protected against, can arise with digital health technologies and AI, and **available strategies to mitigate such risks - Digital Health foundation GAPS** (Governance, Architecture, People and Standards & Interoperability), **local production and open solutions** Outcomes from this session would elaborate the asymmetry challenges, strategies to mitigate risks, and recommended solutions

| OBJECTIVES

1. Identify Risks and Challenges: Explore the economic, ethical, and social asymmetries that can arise with digital health technologies and AI, particularly in low-resource and emergency settings, to understand the potential risks and challenges that may place vulnerable populations at harm.

2. Examine Digital Health Transformation gaps: Investigate the digital health foundation challenges, the GAPS (Governance, Architectural design, People and Standards and Interoperability) and the misplaced investment that contributes to fragmented data, non-locally produced solutions, redundant investments, and non-interoperable solutions

3. Mitigation Strategies Development: Develop strategies to mitigate the risks of economic, ethical, and social asymmetries by emphasizing the importance of stakeholder engagement, and local production and accountability in the design and implementation of health technologies and AI.

4. Promote Open Solutions: Discuss the potential of open Standards, open Technologies, open Architectures, and open Content and DPIs (Digital Public Infrastructure) in creating interoperable, sustainable, and evidence-based AI and digital health systems that align with international frameworks like the Global Strategy on Digital Health.

5. Highlight Stakeholder Engagement: Emphasize the importance of inclusive stakeholder engagement (including private sector) to ensure that emerging health technologies genuinely promote health equity and do not exacerbate existing disparities.

6. Formulate Policy Recommendations: Formulate regulatory and policy recommendations that prioritize equity and accountability, quality assurance, privacy and trust, fostering a governance framework that supports responsible innovation in digital health technologies and AI.

7. Foster Global Collaboration: Encourage international collaboration to create digital [3] that supports interoperability and equity while reducing economic, ethical, and social disparities across different regions.

Speaker / Panelist

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Dr. Celi is the principal investigator behind the Medical Information Mart for Intensive Care (MIMIC) and its offsprings, MIMIC-CXR, MIMIC-ED, MIMIC-ECHO, and MIMIC-ECG. With close to 100k users worldwide, an open codebase, and close to 10k publications in Google Scholar, the datasets have undoubtedly shaped the course of machine learning in healthcare in the United States and beyond. His group has written 3 open-access textbooks: "Secondary Analysis of Electronic Health Records" in 2016, "Global Health Informatics: Principles of eHealth and mHealth to Improve Quality of Care" in 2017, and "Leveraging Data Science for Global Health" in 2020. The first has been downloaded over 1.7 million times and translated into Mandarin, Spanish, Korean and Portuguese. The group has created two open online courses, "Global Health Informatics'' and "Collaborative Data Science for Healthcare". Finally, in partnership with hospitals, universities and professional societies across the globe, Dr. Celi and his team have organized over 50 datathons in 22 countries, bringing together students, clinicians, researchers, and engineers to leverage data routinely collected in the process of care.