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| ITU Logo | INTERNATIONAL TELECOMMUNICATION UNION**TELECOMMUNICATIONSTANDARDIZATION SECTOR**STUDY PERIOD 2017-2020 | FG-AI4H-L-053 |
| **ITU-T Focus Group on AI for Health** |
| **Original: English** |
| **WG(s):** | Plenary | E-meeting, 19-21 May 2021 |
| **DOCUMENT** |
| **Source:** | Focus Group on AI for Health (FG-AI4H) |
| **Title:** | Draft Reply LS on invitation to provide inputs to the roadmap of AI activities for natural disaster management ([FG-AI4NDM-O-004](https://extranet.itu.int/sites/itu-t/focusgroups/ai4ndm/_layouts/15/WopiFrame.aspx?sourcedoc=%7B680AD671-62E5-4381-B64A-EAB4CE105E79%7D&file=FGAI4NDM-O-004.docx&action=default)) [to FG-AI4NDM] |
| **Purpose:** | Discussion |
| **LIAISON STATEMENT(Ref:** [**FG-AI4NDM-O-004**](https://extranet.itu.int/sites/itu-t/focusgroups/ai4ndm/_layouts/15/WopiFrame.aspx?sourcedoc=%7B680AD671-62E5-4381-B64A-EAB4CE105E79%7D&file=FGAI4NDM-O-004.docx&action=default)**)** |
| **For action to:** | ITU-T SG2, SG5, SG11, SG13, SG20, SG16, FG-AI4H, FG-AI4EE,ITU-D SG1, ITU-D SG2, JCA-AHF, JCA-IoT and SC&C, ITU-R SG5, ITU-R SG7, ISO TC292, ETSI EMTEL, IEC Syc Smart Cities, ETC, OGC |
| **For comment to:** | – |
| **For information to:** | FG-AI4AD |
| **Approval:** | FG-AI4NDM e-meeting (Virtual, 17 March 2021) |
| **Deadline:** | 30 June 2021 |
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| **Abstract:** | This Liaison Statement aims to inform about the opportunity to contribute to a roadmap on AI activities (in the context of data, modelling, and communication technologies) in natural disaster management. |

The ITU-T Focus Group on AI for Health (FG-AI4H) in partnership with WHO thanks ITU-T FG-AI4NDM for its liaison statement on an invitation to provide inputs to the roadmap of AI activities for natural disaster management (your [FG-AI4NDM-O-004](https://extranet.itu.int/sites/itu-t/focusgroups/ai4ndm/_layouts/15/WopiFrame.aspx?sourcedoc=%7B680AD671-62E5-4381-B64A-EAB4CE105E79%7D&file=FGAI4NDM-O-004.docx&action=default), our [FGAI4H-L-030](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/docs/FGAI4H-L-030.docx)).

In the goal to establish a standardized assessment framework for the evaluation of AI-based methods for health including diagnosis, triage or treatment decisions, and some of the FG work touch aspects that may be useful in the context of biologic hazards (e.g., pandemics). Accordingly, please find below some information provided by our ad hoc group on digital technologies for covid health emergency (AHG-DT4HE), Topic Group on outbreak detection (TG-Outbreaks), and Topic Group on malaria detection (TG-Malaria)

More information can be found in our home page <https://www.itu.int/go/fgai4h> and collaboration area <https://www.itu.int/go/fgai4h/collab>.

We remain at your disposal for further clarifications and look forward toward fruitful collaboration.

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| Category title | Explanation |
| Acronym | [AHG-DT4HE Output 1](https://www.itu.int/en/ITU-T/focusgroups/ai4h/Documents/FGAI4H-DT4HE-O-001.pdf) |
| Group | ITU/WHO Focus Group on AI for HealthDigital Technologies for COVID Health Emergencies |
| Title | Guidance on digital technologies for COVID health emergency |
| Description | This deliverable collects effective ways and use cases demonstrating how AI and other digital technologies have combatted COVID-19 through the lifecycle stages of public health emergency management, including prevention, preparedness, response, and recovery. The outputs are expected to evolve towards a more generalizable mechanism on the health emergency continuum, eventually applicable to other pandemics. |
| Main disaster group | Health emergencies; COVID-19 |
| Disaster management phase | Prevention, preparedness, response, and recovery |
| Relevant technologies | Artificial intelligence (AI), internet of things (IoT), early warning systems, and general digital technologies. |
| Status | 1st version published |
| Link | [https://www.itu.int/en/ITU-T/focusgroups/ai4h/Documents/FGAI4H-DT4ER-O-001.pdf](https://www.itu.int/en/ITU-T/focusgroups/ai4h/Documents/FGAI4H-DT4HE-O-001.pdf)  |
| Contact | Shan Xu (CAICT, China) and Ana Riviere-Cinnamond (PAHO) |

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| Category title | Explanation |
| Acronym | FG-AI4H [DEL10\_10](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/Deliverables/DEL10_10.docx) |
| SDO | ITU/WHO Focus Group on AI for Health (FG-AI4H) |
| Title | Topic Group Description – Outbreak detection (TG-Outbreaks) |
| Description | This topic description document specifies the standardized benchmarking for outbreak detection systems. The aim of outbreak detection algorithms is to detect aberrant case numbers and conspicuous events within data streams, pointing to the emergence of infectious disease outbreaks, in a fast and automatic manner. To this end, AI algorithms can increase the timeliness and accuracy of outbreak detection. Additionally, disease outbreak algorithm development happens mostly in countries with a strong research infrastructure, such algorithms are mostly biased towards the environment, diseases, and infrastructure of these countries. In the EU, e.g., algorithms developed for one country are used across other neighbouring countries with no public benchmark assessing them. The development of a disease outbreak detection benchmarking would help to provide a low entry into testing and using outbreak detection algorithms regardless of available resources. |
| Main disaster group | Biohazard, food contamination, disaster leading to emergence of vector-borne  |
| Disaster management phase | AI and statistical modelling can help select the right mitigation strategy. Early detection of outbreak helps to improve response |
| Relevant technologies | AI, statistical modelling, meteorological sensors, electronic health records, digital reporting systems, hospital information systems, demo |
| Status | Draft |
| Link | <https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/Deliverables/DEL10_10.docx>  |
| Contact | Auss Abbood (Robert Koch Institute, Germany) and Stéphane Ghozzi (HZI, Germany) |

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| Category title | Explanation |
| Acronym | FG-AI4H [DEL10\_06](https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/Deliverables/DEL10_06.docx) |
| SDO | ITU/WHO Focus Group on AI for Health (FG-AI4H) |
| Title | Topic Group Description – Malaria detection (TG-Malaria) |
| Description | Malaria, a vector-borne disease, is one of the deadly biological hazards accounting for over 229 million cases globally. A crucial element in reducing the disease of the disease is improved diagnosis. However, this requires the expertise of Microscopists to operate the gold microscopy method for screening Malaria. Unfortunately, highly Malaria endemic settings have very few expert Microscopists to diagnose and interpret the results of the huge numbers of malaria patients.This deliverable is thus dedicated to supporting AI-Based detection of Malaria. Benchmarking of AI-based detection of Malaria focuses on developing AI tools that can adequately detect Malaria quickly, accurately, cost-effective, and reliable. Additionally, using AI to understand the spatial phenomena of Malaria can generate useful insights for informing and supporting decision making towards effective disease surveillance and control. The benchmark will be impactful and relevant, especially in developing but highly Malaria Endemic settings. This is envisioned to improve public health and synergise with goal 3 Target 3.3 of the Sustainable Development Goal (SDG), which aims to have Malaria endemic end by 2030.  |
| Main disaster group | Bio hazards, malaria |
| Disaster management phase | Mitigation and response |
| Relevant technologies | Artificial intelligence (AI), remote sensing and surveillance technologies, and general digital technologies. |
| Status | Draft |
| Link | <https://extranet.itu.int/sites/itu-t/focusgroups/ai4h/Deliverables/DEL10_06.docx>  |
| Contact | Rose Nakasi (Makerere University, Uganda) |

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