I-DAIR

The International Digital Health and AI Research Collaborative (I-DAIR)

Progress report

Period: Sep-2022/Feb-2023

Preamble

We are pleased to present our progress report, highlighting the achievements of our flagship projects over the past six months. This report serves as a comprehensive update on our progress, outlining key accomplishments, challenges, and plans for the future.

Six months ago, our organization embarked on several flagship projects, with the aim of achieving significant impact and delivering value to our end users. The projects were carefully designed to align with our organizational mission and address critical challenges in our domain. We also sought to consolidate our efforts by leveraging existing resources and expertise, developing new partnerships and collaborations, and enabling the sharing of best practices among our teams.

Over the past six months, our teams have worked diligently to drive progress on these projects. We have made significant strides in several areas, including the Research Infrastructure, the competency framework for digital health, and projects on participatory modeling and mental health. We have also overcome several challenges, such as identifying new partnerships and projects and developing a new project agreement with the WHO on Traditional Medicine.

We are delighted to report that we have achieved a major milestone in the development of our organization by formally creating the foundation "I-DAIR". This significant achievement marks a turning point in our journey towards success. Through the formation of our foundation, we have established a legal entity that will enable us to pursue our development objectives with greater focus and efficiency. Our team

has worked tirelessly to create a strong foundation for our organization. The creation of "I-DAIR" will provide us with a unique opportunity to accelerate our development. This achievement is a testament to the hard work and dedication of everyone involved in this process, from our board members to our operational, legal team and advisors. With the formal establishment of "I-DAIR", we can now focus our attention on the growth and expansion of our projects and partnerships. We are confident that this major milestone will serve as a launching pad for even greater success in the future.

We are thrilled to report that we have been invited by the G20 India's presidency to participate in the Health Working Group, alongside some of the world's most respected and innovative organisations. We are incredibly proud to have the opportunity to collaborate with other global leaders to tackle some of the most pressing issues facing digital health and AI and the wider world. The invitation to the G20 is a testament to our team's commitment and dedication to excellence and a reflection of the hard work we have invested in our projects and engagements. We are confident that this participation will provide us with new insights, ideas, and connections that will be invaluable to our future growth and success.

This progress report provides a detailed account of our progress on each project, including milestones achieved, key learning, and next steps. We have also included an action plan to ensure that any identified challenges are addressed in a timely manner. We hope this report will provide you with a clear understanding of our progress and how we plan to move forward.

CEO a.i.
Dr. Mehdi Snène

Flagship projects progress

We are pleased to provide an update on our progress and highlight our 6 flagship projects. These projects represent the cornerstone of our business strategy and are critical to achieving our vision and mission. Each project is designed to address a unique challenge or opportunity within our domain, and together they form a comprehensive approach to building a sustainable and successful approach. We are committed to driving each project forward with the utmost

dedication and focus, and we are excited to share our progress with you. We believe that these projects will have a significant impact on our domain, our partners, and the wider community, and we look forward to continuing to deliver exceptional results. The Science conference project, as discussed during the first board meeting, has been delayed while we develop an engagement and dissemination strategy.

Figure1. Strategic Flagship projects

1. Trusted Research Infrastructure and software suites

The Digital Health Research Infrastructure is composed from 2 main components:

- Virtual repository that aggregates data from various sources, and gives them a common data model under a data and learning federation approach

- Combined hardware and software infrastructure to help build research capacity in digital health and AI in different collaboration settings

With regards to this implementation plan, I-DAIR has initiated the development of a personalized and assistive learning experience (PALEX) and a Code-less experience (CODEX) with the first hardware prototype which is being incorporated into the Research Infrastructure.

In 2022, I-DAIR reached several significant milestones in the development of the RI. After completing the specification for the shared neutral infrastructure, I-DAIR assembled the first RI node and installed it in the I-DAIR headquarters. This RI node was tested with an AI/Deep Learning use case for pandemic predictions that also made use of the high-powered graphics processing unit (GPU). With this use case, I-DAIR exercised the full ML/AI lifecycle from data collection and storage in a private data repository, several iterations of model training supported by a state-of-the-art experiment tracking system, up to the publishing of the model to an ML/AI model registry.

Figure2. RI node

From that model registry, the model was deployed for inference (predictions) via both web based API's as well as a custom graphical user interface. I-DAIR is now progressing with the development of a code-less experience (CODEX) system geared towards public health researchers that will be tested at the African Population Health Research Centre – APHRC (Nairobi, Kenya) together with a dedicated RI node. For a closer collaboration, I-DAIR also recruited a Data Scientist Research Fellow from APHRC end of 2022 who is actively contributing to the TRI project whilst ensuring to meet the ML/AI needs of APHRC's public health researchers. I-DAIR also progressed with the development of a personalized learning experience (PALEX) to assist medical students and researchers in understanding and using their data and to better prepare them to work with the CODEX.

Finally, the RI's centralized cloud capacity is being discussed with the UNICC to determine the various services to be included, such as hosting and cyber-security. I-DAIR anticipates the software stack to be tested within the UNICC hosting capacity by mid-2023.
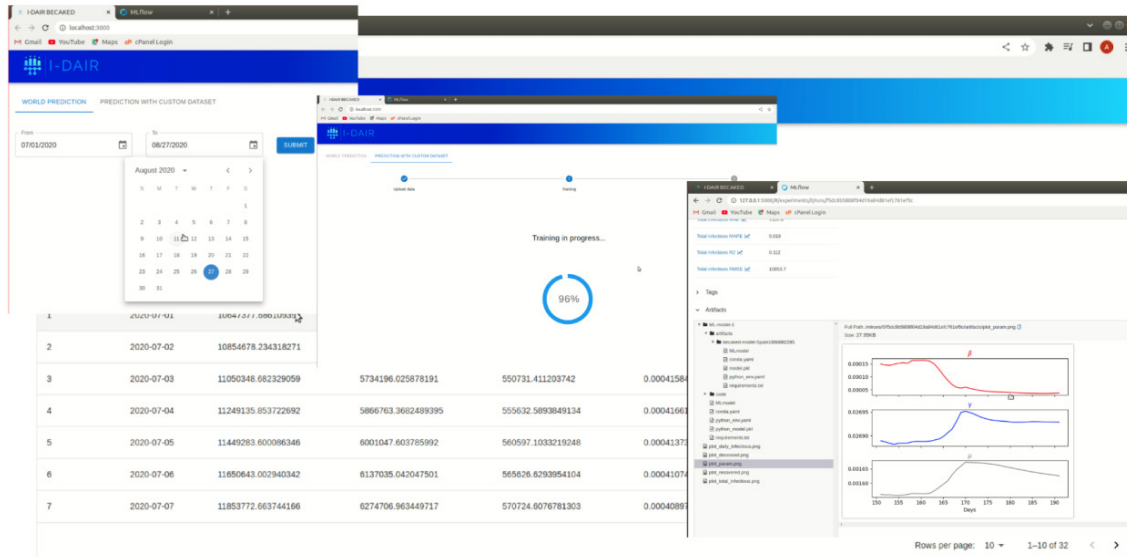
Figure3. Screenshot of the AI code less environment *"Codex"*

2. Capacity development

We are establishing a capacity development network for digital health and AI for health with I-DAIR's hubs and partners, developing a competency framework for digital health and AI with WHO as a key partner, and leveraging a range of existing and new practical, interactive, unique educational offerings as well as coaching and peer-to-peer learning networks. Both will bolster the sustainability of the collaboration network and the continual use of the resources deployed.
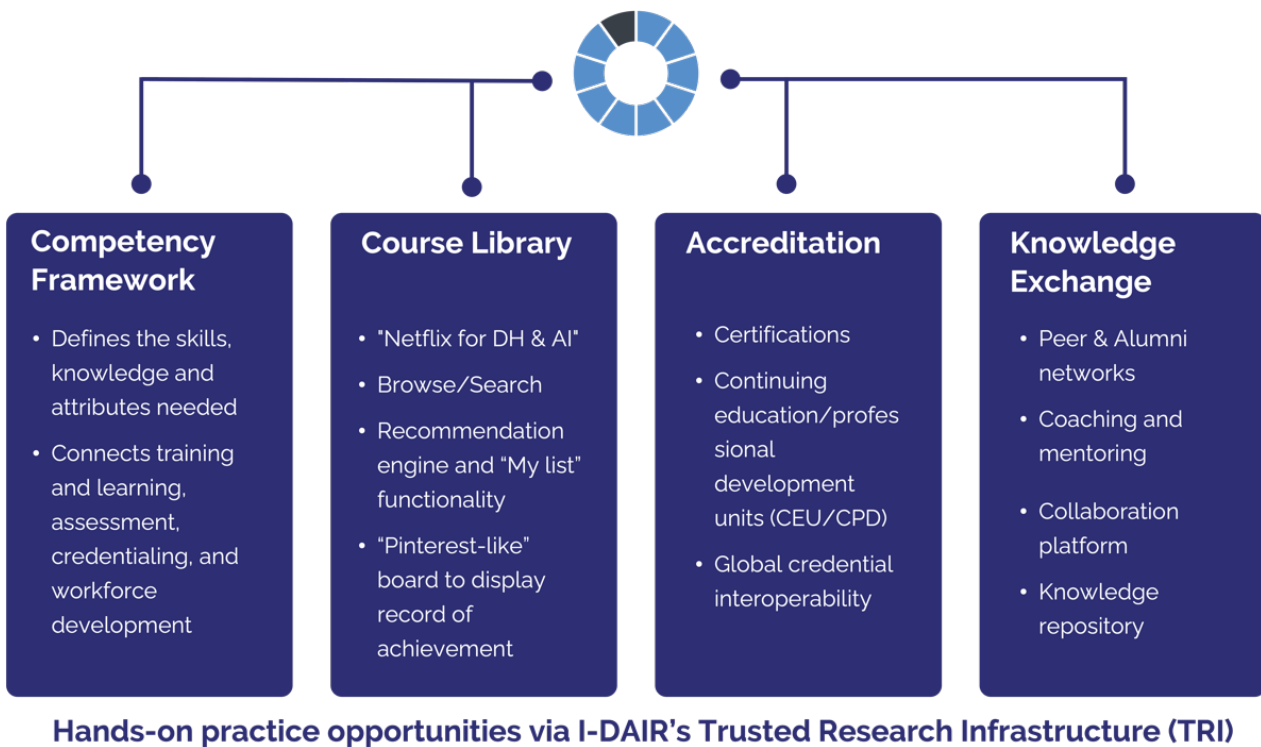
A foundational effort of the CDN is the collaboration with WHO to develop a Digital Health Competency Framework for health policymakers, planners/implementers/researchers, practitioners and providers, and people/patients worldwide. It will serve as a meta framework linking with existing exemplar competency frameworks. Building upon the work begun by WHO AFRO in 2019-2020, the Digital Health Competency Framework will

help define a blueprint for an effective and patient-centric health workforce. It will clarify what it means to be proficient in digital health. It will establish common ground for the critical digital skills and knowledge needed to bring health professions to a new level, ensuring health workforces can effectively use the technologies being deployed to bring digital health systems to a new level of usability, sustainability and impact and to bring health policies and decisions into the digital age. After a period of consultations with I-DAIR hubs and partners in 2021, the project kicked off in March 2022 with the creation of a Steering Committee and two working groups on Competency Frameworks and Learning Content. Membership is diverse on multiple dimensions, with nearly 160 members in the Competency Framework from 49 countries, 52% of which are from LMICs and 41% female, representing a range of roles and sectors. In 2022, the Competency Framework working group began drafting the framework's initial domains, sub-domains, and competency

statements. This work is continuing in 2023, including a draft release at the World Health Assembly in May 2023 by WHO and I-DAIR, and review and feedback through a WHO call for experts.

Given the high unmet demand for training, I-DAIR organized the participation of a first cohort of 20 learners from Kenya, Botswana, and Chile in the 11-week "Digital Health: Planning National Systems" course jointly developed by USAID, Digital Square, Last Mile Health and TechChange based on content

compiled by the WHO and ITU. The cohort, composed of researchers from the APHRC and representatives from academia and the Ministry of Health in Botswana and Chile, will form the CDN's initial alumni and peer-to-peer learning community. Through their experience, participants will also constitute a focus group to inform the development of future courses and the competency framework. Finally, I-DAIR is partnering with UNITE this year to develop a future AI for health course for parliamentarians.

Competency Framework

- Defines the skills, knowledge and attributes needed
- Connects training and learning, assessment, credentialing, and workforce development

Course Library

- "Netflix for DH & AI"
- Browse/Search
- Recommendation engine and "My list" functionality
- "Pinterest-like" board to display record of achievement

Accreditation

- Certifications
- Continuing education/professional development units (CEU/CPD)
- Global credential interoperability

Knowledge Exchange

- Peer & Alumni networks
- Coaching and mentoring
- Collaboration platform
- Knowledge repository

Hands-on practice opportunities via I-DAIR's Trusted Research Infrastructure (TRI)

Figure4. Main Components of the Vision for the Capacity Development Network

3. Pandemic Scheme: Citizen science and participatory modeling

In order to ensure that human agency is preserved in the research and development of digital interventions and AI for health, this flagship workstream of I-DAIR looks at developing citizen science approaches that would allow for engagement of local communities to go beyond data generation and extend into modelling, communications and collaborative policy development. In areas where existing digital technologies could augment participation of local communities, we would incorporate them into the citizen science approaches. However, to ensure inclusivity and not further widen the digital divide, we would make sure that there are analog versions to these participatory approaches too. Our vision here is that by empowering communities through shared knowledge-making and bidirectional communication, these approaches and tools could build trust among communities, researchers and policymakers which is critical in getting a concerted response to public health challenges.

In the past 6 months, I-DAIR launched the first 2 projects for this vision: a citizen science needs assessment and a pilot implementation of participatory modelling for health. Using pandemic preparedness and response as a use case, we worked with 11 low-middle income countries on these projects.

3.1 Citizen science needs assessment

This needs assessment aims to understand: i) the landscape of participation and collaboration processes within the communities; ii) the level of awareness and acceptance of local communities to citizen science approaches; and iii) the feasibility and sustainability of digital participatory approaches over various geographies and cultural contexts. Through surveys and focus group discussions, we hope to identify suitable methods to engage citizens and co-produce knowledge through data generation and modelling to inform policy making. This was implemented with civil society organizations across 9 countries, namely Bangladesh, Cameroon, Indonesia, India, Kenya, Nepal, the Philippines, Uganda, and Zimbabwe. I-DAIR trained the local implementation partners on using mixed methodologies to carry out the study and produced video and infographic resources in local languages to introduce the concept of citizen science to community members, including marginalized populations.

To date, 2259 community members have been included (Figure 5). Preliminary results indicate that citizens want to be involved in research and science activities and are keen to participate in these activities through digital platforms (Figure 6). Final and full analysis of the results is anticipated for April 2023.
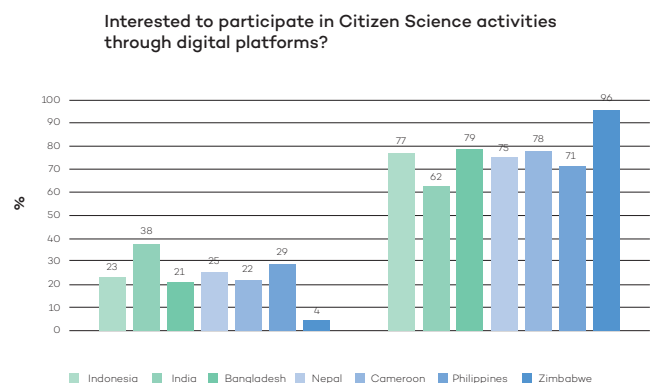

Figure5. Citizen science survey in progress in Bangladesh

Interested to participate in Citizen Science activities through digital platforms?

	Indonesia	India	Bangladesh	Nepal	Cameroon	Philippines	Zimbabwe
%	23	38	21	25	22	29	4	77	62	79	75	78	71	96

Figure6. Majority of respondents are interested to participate in citizen science activities through digital platforms (Note: Results not yet in for Kenya and Uganda)

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3.2 Participatory modeling pilot

I-DAIR and its research and hospital partners in Vietnam, Kenya and Brazil initiated a pilot study to address how to effectively manage a disease outbreak with resources available in hospitals and their surrounding communities through the use of participatory modeling approaches and multi-agent models. The objective is to give citizens an active role in dealing with a disease outbreak by having them provide their perspectives and inputs in resource management during the response. Working with policymakers, healthcare workers and citizens, we developed shared representations of the system dynamics involved in the management of a disease outbreak. During participatory workshops (Figure 7) and role-playing games, we attempt to capture characteristics, behaviors and interactions of the various actors and their resources with a high degree of diversity and fidelity. These articulations will help us better develop and fine tune multi-agent models to local cultural and policy contexts. Through big data analytics, we will also bring in real world data, in as near real time as possible, as further inputs to the models built. "What if" scenarios generated from these models will be fed back to the policy makers to inform decision making and the development of policies that would resonate with local communities. Based on these pilots, we hope to ultimately develop an open-source digital platform to support online participatory modelling activities on a larger scale with even more diverse and non-scientific stakeholders, pioneering the way for citizen collaborations on health challenges across countries.

Figure7. . Participatory modelling workshops conducted in Nairobi, Kenya and Porto Alegre, Brazil

Through these 2 projects, I-DAIR has developed local capacities and built a community of practice, particularly among young emerging researchers in LMICs, around citizen science research.

4. Mental health and Wellbeing

In July 2022, we started the mental health work stream. Based on several exchanges with our partners and collaborators, a first execution plan was initiated. Mainly we have targeted the development of 3 specific deliverables:

4.1 GRM of Mental health and associated Mental health report

On World Mental Health Day (10 October) 2022, I-DAIR launched the Mental Health and Wellbeing (MH&W) edition of the I-DAIR Global Research Map (GRM). Based on comprehensive and comparative mental health and well-being research activities around the globe, the Map enables a detailed analysis of digital trends in research and interventions for mental health. It sheds light on gaps across the mental health care spectrum, revealing research areas boosted by COVID-19 and disclosing the share of digital health applications in mental health and wellbeing studies. The 2.5 million scientific articles analyzed and mapped through Natural Language Processing (NLP) indicate exponential growth in the research and development (R&D) of mental health and digital mental health publications in 2020 and 2021, as the pandemic accelerated the adoption of mental health digital and AI-based interventions. However, recent data also reveal a significant decrease in research and clinical trials in the field since 2022.

Figure8. Screenshot from the GRM of mental health

4.2 Conceptual framework for deployment of Digital MH intervention, collaboration with government of Punjab

The overall aim of the project is to develop a validated evidence-based conceptual framework for the design and implementation of needs-based and solution-oriented Digital Interventions in Mental Health. We consider that Digital interventions in Mental Health (MH) have the potential to positively support the growing number of children and adolescents affected by mental health conditions to manage their daily lives better and reach a wider segment of people. However, guidelines, regulations and frameworks to develop evidence-based digital interventions in MH are limited and inadequate. Therefore, the current project proposes an AI-Enabled Process Framework (Ai.PF) for digital intervention in MH, which aims to elucidate the systematic process needed for the development of these interventions for children and adolescents. The framework intends to support researchers, policy makers, and practitioners at an early stage of the design of digital intervention in MH models and to assess the solutions adequacy in regards to the needs and its scalability and sustainability.

The objectives of the AI-Enabled Framework for Digital interventions in MH are:

- Extract the model of interactions between determinants and MH

- Study how social activities impact their MH

- Study the current state of digital interventions in MH

- Understand which obstacles and gaps exist in accessing and providing digital intervention in MH in the region of Punjab

4.2 Research agenda for Digital interventions in mental health

An initial research work is the Scoping Review of Promotive and Preventive Digital Mental Health (DiMH) Interventions for Young People. A scoping review is a comprehensive and systematic approach to identify and summarize research literature on a particular topic. Through the scoping review process, we were able to analyze a vast amount of literature on DiMH, which helped us to better understand the bottlenecks and gaps in the existing development. By examining the literature, we were able to identify common themes and trends, as well as gaps in knowledge, which helped us to focus our research efforts on areas that are most relevant and important.

The initial search presented 3834 studies with the final selection resulting in the inclusion of 87 of them, published from 2011 to 2022, each one corresponding to a unique digital intervention. Out of the 87 interventions, 71% of them are digital health applications/web interfaces, with the remaining being AI/ML or other emerging technologies. In terms of the targeted action, 71% of these interventions were purely preventive, 13% promotive and 16% were targeting both prevention and promotion. The majority of them were tested in community settings (52%) or school-based (41%).

The results of the scoping review allowed us to gain a deeper understanding of the research topic and its related issues, which will ultimately improve the quality and effectiveness of our research agenda.

6. Responsible AI

For governance, I-DAIR seeks to develop a collaborative AI governance scheme that facilitates exchange of governance innovations and outcomes across different nodes. During the first phase of the development of the TRI, we will document governance requirements around data and AI at the collaborating institutions and how they relate to national regulatory requirements as well as international normative guidance from the WHO and other forums. We will also study how these requirements vary across the AI development, deployment and assessment phases, and how they can be reflected in the TRI and the practice of the collaborating community. The aim is to create the foundation for peer-to-peer exchange of governance responses across the collaborating institutions.
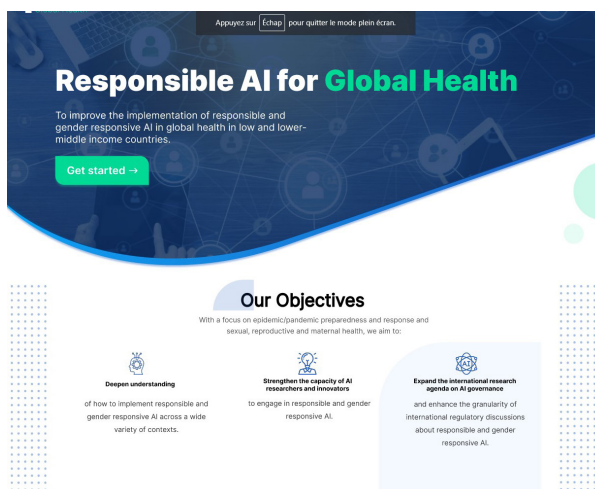

Figure9. The landing page of the Gov-Ops project

Current achieved milestones are the following:

- Back-end design for the Governance Ops platform

- Early prototype for the Responsible AI for Global Health Governance Mechanism website. It represents the entry point to learning about the AI for Global Health Governance Mechanism and its key components: the three-part governance mechanism and the Governance Ops Platform. We are sharing this mockup with IDRC partners such as TGHN to identify our potential points of collaboration or overlap and get feedback from the researchers and innovators in particular on the visual presentation and usability.

- Responsible AI Resource Landscape – This is a spreadsheet compilation linking to various resources potentially needed for the project, e.g. international, national and institutional regulations, policies and guidelines governing AI, digital services, technology and data (data privacy, data use, data protection, data security); national AI plans and strategies; responsible AI tools and toolkits; gender equity and inclusion; key initiatives and other actors; and more. The compilation is in progress and will be ongoing. These AI governance regulations, policies and guidelines and stakeholder engagement tools will be threaded throughout the different phases of AI algorithmic development: problem identification, data discovery, data collection and curation, algorithmic development and training, testing and evaluation, and post-deployment assessments.

7- E-PROM

The e-PROM project is a first step under I-DAIR's benchmarking pathfinder to develop consensus on a shift in focus from technical accuracy to human-centered evaluation of digital health and AI solutions, and stimulate the development of a roadmap for the development of a new generation of human-centred benchmarks combining qualitative and quantitative methodologies. Flowing from this vision, I-DAIR is conducting a study jointly with Christian Medical College Vellore, Tata Memorial Centre Kolkata (India) and Hospital Errazi (Tunisia). Over the next two years, the aim of the collaborative effort is to:

• Develop a team of health care workers and IT support staff who can identify appropriate PROM measures that can be used in diverse health care settings, advocate for their adoption with colleagues and design pragmatic clinical trials utilizing these measures.

• For each instrument identified, identify problems for using a digital version of the instrument including but not limited to problems with languages and reference values availability, requirement for complex inputs on the part of the patients, and accessibility of the tool.

• Create standards independent of the outcome studied. Clinicians, patients and other stakeholders will be involved to create consensus on patient centric meaningful outcome measures that can be objectively measured using a digital platform.

As part of a pilot approach for this study, e-PROM modules will be developed for oncology, diabetes care, and neurology and lifestyle medicine. The questionnaires would be incorporated in the e-PROM as simple daily life questions which would be asked once or twice a week. Based on the responses a quality score would be generated.

Figure10. A view from the E-PROM project

8. Traditional Medicine and AI evidence mapping: WHO and GCTM

After signing the LTA with WHO TM, we have agreed on the development of a specific ToR for the development of first deliverables to be presented during the G20 side event, the 17th and 18th August 2023. The project will aim to develop a first approach to inventorying the evidence of TM through the use of AI and unstructured data, big data and unusual data. The goal is to determine the existence of patterns or lines of evidence that are not usual and that are not integrated into the classic models of clinical tests. The approach will allow researchers to systematically research the range of practices of traditional medicine which may not be based on traditional knowledge and traditions and provide evidence that will help the development of a modern, evidence-based practice of traditional medicine. The outputs of the project will contribute to enhancing the understanding of TM practices, which is expected to help make TM practices more widely acceptable.

The project will be structured into two phases:

- Data collection and discovery: Firstly we will focus on data source identification (Research papers, patents, clinical trials registries, big data sets, unstructured data, online available data), multilingual data, information collection, and data harmonisation and cleaning. The identification phase will be conducted with the different teams of the evidence working group in order to extend the collection to the wider identified sources and to minimize redundancy and overlap. In parallel, we will develop a generic framework of TM ontology and the related instance for a specific TM discipline: The herbal medicine. First country batches of TM landscaping will be India, China and Switzerland. A corpus of traditional medicine-related publications will be built to investigate the role of TM evidence generation and discovery in the TM literature. This corpus will be annotated for use by TM-related AI systems and connected to other data resources, including unstructured data (geolocalisation data, newspaper articles, videos of TM, etc.) and unconventional data (Amazon reviews, Google reviews, e-commerce data, etc.). This first dataset will serve for the extraction of the most commonly Evidence Description Terminology (EDT). The goal will be the identification of existing taxonomy that is used to describe evidence, the context of use and the related origins (scientific, public, patient, practitioner...).

-AI-enabled framework for TM evidence discovery and visualization: Models for AI-enabled TM evidence discovery will be built based on the obtained EDT from the previous phase. We will be looking at a number of AI tools and approaches for exploring the properties of TM data, including Natural Language Processing, Sentiment Analysis, recommender systems, Bayesian inference, and pattern recognition. As we progress, we will begin to develop the models for AI-enabled applications in TM research and practice. The aim is to uncover new models for TM evidence generation and discovery.

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Major Engagement and outreach

Over the course of our work, we have participated in various events related to outreach, partnerships and dissemination. These events have provided us with opportunities to engage with different stakeholders, including researchers, policymakers, practitioners, and potential funders. We have also participated in several conferences where we shared our knowledge and experience with practitioners and policymakers, as well as events organized by community groups where we engaged with members of the public and shared our research findings in a more accessible way. Additionally, we have used social media platforms to disseminate our research findings and engage with a wider audience.

First G20 Health Working Group Meeting, 17-20 January

On the invitation of the Indian ministry of health and the G20 health working group chair, we have been invited to participate in the first meeting and we had the opportunity to introduce I-DAIR and to present our vision and statement to a diverse and influential audience. Our participation in this event allowed us to engage with a broad range of stakeholders and share our insights and perspectives on critical issues facing digital health today. Our interventions at the G20 working group were well-received, and it sparked lively discussions with several attendees. I-DAIR was represented by Board Chair Dr. Christoph Benn and interim CEO Dr. Mehdi Snène. We have delivered the following statements:

Statement on digital health *"I profit from this opportunity to thank the G20 Indian presidency for this initiative and for making digital health a major subject in the health work stream and for taking the debate further with a clear plan for implementing*

transformative steps towards a global digital health leadership and strategy.

As an organization actively involved in the implementation of digital health and AI transformation at the global scale, I-DAIR is already addressing a recognized gap in providing unbalanced access to digital and AI for health, I will cite some examples such the access to the genomic sequencing capabilities for rare disease, brain health and brain simulation platform, precision medicine, AI for drug discovery and much more. One step toward a "ONE" digital health, we hope that the G20 members will take urgent steps towards the implementation of an open, fair and equitable Digital transformation plan where healthcare practitioners, clinical and medical researchers and patients are in the center of such transformation. We are also advocating for a global digital transformation where the focus is not only on health data sharing but also on data outcomes sharing while reinforcing the national health data sovereignty by adopting new mechanisms and technologies such as federated learning.

We also hope that G20 members could play a visionary role beyond the immediate action of digital transformation for shaping the impact of the artificial intelligence and frontiers tech such as the quantum computing on the future of health care systems, with more investment and actions for research and development program benefitting particularly smaller and less resourced countries, but also for promoting and coordinating entrepreneurship ecosystem for advanced technologies health.

We welcome and support the creation of a corpus fund to provide much needed additional funding for the promotion of digital health and AI for the benefit of all countries and the most vulnerable populations. This is a great and essential step to ensure that digital

health will not exacerbate inequalities and gaps in healthcare access."

Statement on integrative and traditional medicine: *"We thank the G20 Indian presidency for making wellness, integrated care, patient centricity and traditional medicine as a subject matter of the G20 healthcare working group.*
Traditional medicine will be invaluable for achieving Universal Health Coverage. To realize the potential, and although the growing body of evidence that suggests traditional medicine can be effective in treating a wide variety of health conditions. There is still a lack of data to support many of these claims. This is where data analytics, artificial intelligence (AI), and big data could come in. Together, these three technologies can be used to bridge the gap between evidence and practice in traditional medicine and empower researchers and developers of Traditional Medicine.

There is no contradiction between modernization, digitalization and traditional medicine, and the digital transformation effort could mostly benefit Traditional Medicine, to capture and sustain the existing tacit knowledge, to accelerate the dissemination and large adoption and most importantly to analyze, find and extract evidence of effectiveness and efficiency.
In close collaboration with the WHO and the Global Center of TM, at I-DAIR we have started developing a first AI enabled framework to inventorying the evidence of TM through the use not only the clinical and medical data but also unstructured data, big data and unusual data with an initial goal to determine the existence of patterns or lines of evidence that are not usual or not standardized within the classic models of clinical tests. We welcome all G20 countries that are interested in joining the collaborative effort and we would like to thank India again for all the deployed efforts for raising the awareness and the importance of TM in the integrated health approach."

Francophonie Summit, Djerba, Tunisie, 27 September, 2022

On the invitation of the Swiss Embassy in Tunisia, I-DAIR had attended the Francophonie Summit in Djerba, as an example of international innovation from Geneva working for better digital and AI governance.

World Health Summit Keynote,Berlin, Germany, 18th October, 2022

On 18th of October, and invited by Dr. Christoph Benn to join a panel discussion at the WHS, the interim CEO participated in a panel where he underlined the importance of the shift of the paradigm in digital health and the necessity to rebuild a new bottom approach and be patient centered.

The panel subject was on breaking the data silos and the importance of reshaping the future of healthcare and crisis preparedness. With the growing opportunities of digital health and artificial intelligence (AI), we are, more than ever before, in the pole position for a Global Health Data Space that could help to treat and govern data for health as a global public good. However, across and within countries there is a stark divide in the capacity to effectively work with data. The 2021 I-DAIR Global Research Map reveals, the divide between data use leaders based in a small number of countries and the rest of the world is growing. Additionally, biases in data relating to gender, race, and age limit the universal benefit and the trust in data use.
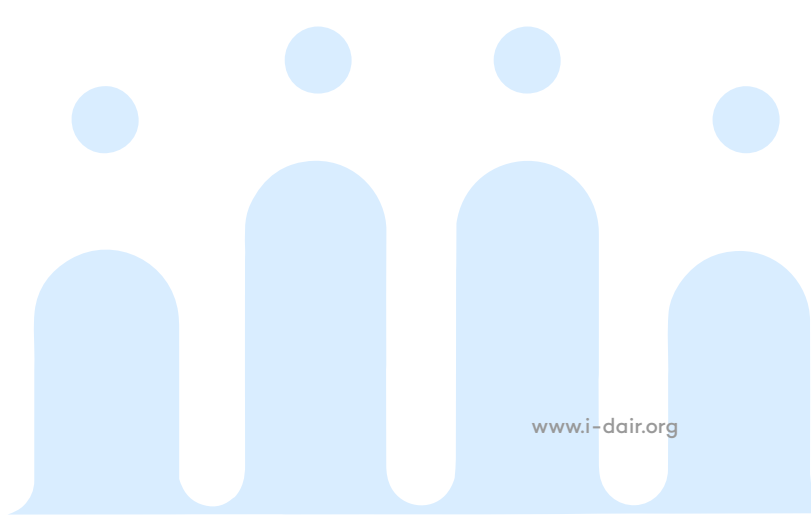
UNGA Science Summit, New York, 22-09-2022

On 22 September, the International Digital Health and AI Research Collaborative (I-DAIR) and its global partners - namely the United Nations University Institute in Macau (UNU Macau), the Indraprastha Institute of Information Technology Delhi (IIIT-Delhi), the Universidade Federal do Rio Grande do Sul (UFRGS), the Africa-Canada AI and & Data Innovation Consortium (ACADIC) led by York University, the University of the Witwatersrand, and the City University of New York (CUNY) - conducted two high-level panels at the UNGA77 Science Summit in a session entitled "Artificial Intelligence Research in Health: Tackling Global Challenges as One".

The first panel looked into how to promote collaborative research in AI for health. Specifically, the following points were highlighted: i) Levelling the playing field for the responsible development and deployment of AI techniques in health across gender and socio-economic boundaries through human capacity development, as well as setting up a network of distributed and trusted research infrastructures; ii) Making data and meta datasets more diverse and representative of the world population and devising fair and equitable ways to share value derived from these datasets; iii) Designing responsible AI through interdisciplinary and transdisciplinary approaches by involving stakeholders across disciplines and sectors so that the technologies developed are contextualized, able to capture most biases and most importantly, provide humans agency over AI in the long run.

The second panel highlighted the state of the art in AI for health and explored how existing technologies can be leveraged to overcome pressing global health challenges. Our panelists used anti-microbial resistance, outbreaks of emerging infectious diseases, cardiovascular diseases, and environmental changes leading to shifts in disease patterns as use cases to highlight the imminent issues that the global health community must tackle going forward.

Discussions were lively at thisUNGA side-event and ultimately pointed out the need for a collective, inclusive, neutral and trusted platform to level the playing field and drive the conversation around human-rights abiding AI solutions for health.

UNGA side event, New York- 07-09-2022

On 7 September 2022, the International Digital Health & AI Research Collaborative (I-DAIR) presented its work at the UN Headquarters in New York, demonstrating its relevance and unique position to bridge the digital health and AI knowledge gap and accelerate progress on the 2030 Agenda.

In a panel entitled "Accelerating progress on the SDGs by empowering researchers and innovators to use data and AI", co-sponsored by the Missions of Singapore and Switzerland, I-DAIR showcased its innovative approach to building digital research & development capacity and bridging the digital divide in health research.

The panel, moderated by Mr. Steve Davis, Senior Strategy Advisor at the Bill and Melinda Gates Foundation, agreed on the need to build resilient, digitally enabled health systems by fostering transdisciplinary collaboration in digital health and AI for health research. Amb. Päivi Sillanaukee, Ambassador for Health & Wellbeing at the Finnish Ministry for Foreign Affairs, pointed out the issue of trust and transparency – key conditions for technology to reach its full potential. She noted the help I-DAIR can provide in building the trust needed for stakeholders to collaborate, especially considering the sensitive nature of health data. Dr. Nnenna Nwakanma, Chief Advocate of the World Wide Web Foundation, called attention to gender-equality, responsiveness, and inclusiveness in technologies – hoping I-DAIR's diverse network of hubs and partners will participate to include more people, especially more women from the Global South. Referring to the Memorandum of Understanding recently signed between WHO and I-DAIR, Mr. Derrick Muneene, Head of Unit for Digital Health and Innovation at WHO, rejoiced over the two organizations' collaboration on capacity building and on ethics and AI.

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The International Digital Health and AI Research Collaborative (I-DAIR)

www.i-dair.org

contact@i-dair.org