AI/ML in Digital Health Technologies (DHTs)

Project Scope

The use cases of artificial intelligence and machine learning (AI/ML) in digital health technologies to improve healthcare through software. Understand the challenges, and identify the gaps. Connect different stakeholders, share knowledge, and advance in developing AI/ML in DHTs.

Project Statement

DHTs are revolutionising the healthcare industry, with AI/ML playing a key role in the development of new solutions. With more applications of AI/ML in practice, from optimising workflows to improving diagnostic capabilities, the collaborations to learn from the use cases and the partnership to overcome challenges are urgently needed.

Project Impact

The integrated effort to study real-world applications will ensure the emerging technologies are used effectively and in compliance with relevant guidelines and regulations.

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Objectives & Deliverables	Timelines
Identify the industry knowledge-sharing community of practice, prioritise future project topics	Q2/3 2023
PHUSE/FDA CSS presentation/poster	Q3 2023
Start gathering use cases	Q4 2023
Quarterly Community Forums	Q1 2024
Invited expert talks	Q2 2025

CURRENT STATUS **Q1 2024**

- Sub-teams had kick-off meetings
- Started rolling out communication and activities (planning and outreach)

AI/ML Sub-teams

The project volunteers are organised in sub-teams to learn a specific topic through planning/facilitating a forum with experts, and collecting use cases. Please indicate your participation by filling out the form to join the sub-team of your interest

Sub-Team	Forum Topic	Lead
GA	Generative AI in healthcare	Jeffrey Lavenberg
AP	Application of AI/ML in precision medicine (includes RWE)	Shraddha Thakkar
RL	Regulatory landscape of AI/ML in DHTs (current landscape, knowledge gaps, best practices for regulatory submissions, challenges of regulating AI)	Richard Baumgartner
MD	AI/ML models (logistic regression, support vector machines, decision tree, convolutional neural networks, etc.)	Hanming Tu

UC	Challenges of use of AI/ML in DHTs (ethical concerns, privacy issues/cybersecurity, misuse of data, complexity of data management including data interoperability, etc.)	Jessica Hu
SD	Software-driven medical devices	Anders Vidstrup