

Preliminary Agenda

Day 1 | September 5, 2022 | Foundational Concepts



Section 1: Data Ecosystem and Stakeholders

Introduction to the digitalization of health, the data life cycle, and the variety of stakeholders involved

- Effy Vayena (ETH Zurich): "The digitalization of health and the big data ecosystem"
- Katrin Cramer (SPHN & SIB Swiss Institute of Bioinformatics): "The SPHN Collaboration"

Section 2: AI for Health: Introductory Concepts and Applications

Overview of algorithmic design, functionality, & applications

- Andreas Krause (ETH AI Center): "Introduction to AI and data science"
- Alessandro Blasimme (ETH Zurich): "Overview of AI applications in health and medicine"



Deep dive: Trustworthy technology and data uses

- Mikael Jensen (D-mærket/D-seal): "Responsible use of data: Denmark's 'D-seal' strategy"
- Niniane Paeffgen (Swiss Digital Initiative): "Swiss Digital Initiative and the Digital Trust Labels"

Section 2: Big Data & AI Applications

Deep dive: Big data and AI application in across sectors

- Monica Epple (Swiss Re): "Big data and AI in the insurance sector"
- Xavier Vollenweider (Flowminder): "Big Data for Public Health"

Break-out groups followed by plenary discussion

- Effy Vayena (ETH Zurich) (moderator): "How to make AI more trustworthy? Are technical solutions sufficient to address ethical challenges?"



Section 3: Data Privacy in Health

Introduction to data privacy and critical examination of privacy preserving approaches in medicine and public health

- Elettra Ronchi (WHO/Europe consultant): "Data privacy and open data for health research: striking a balance"
- Jean-Pierre Hubaux (EPFL and Tune Insight SA): "Privacy enhancing technologies for personalized health"
- Wouter Lueks (EPFL): "Privacy preserving technology: The Swiss-COVID App"

Break-out groups followed by plenary discussion

- Elettra Ronchi (WHO/Europe consultant) (moderator): "On data-related challenges"



Section 1: Data Governance and AI Regulatory Approaches

A comparative perspective on data governance approaches and AI regulation strategies

- Elettra Ronchi (WHO/Europe consultant): "The European Data Strategy in perspective: key aspects"
- Timo Minssen (University of Copenhagen): "AI regulation in EU, USA: models compared"

Section 2: Practical Tools and the Evaluation of Governance Models

Deep dive: Tools and guidelines addressing data uncertainty while increasing AI trustworthiness in health

- Josip Car (Imperial College London): "Singapore's AI Verify"
- Andreas Reis (WHO): "Ensuring the equitable distribution of AI benefits"
- Viknesh Sounderajah (Imperial College London): "Promote innovative and trustworthy AI: state of the art and steps ahead"
- Knut Mager, (Privacy strategist): "The use of regulatory sandboxes in the pharmaceutical sector"



Break-out groups followed by plenary discussion

- Effy Vayena (ETH Zurich); Elettra Ronchi (WHO/Europe consultant) (moderators): "Strengths and weaknesses of governance models for AI in health: which gaps must urgently be filled?"

Day 2 | September 6, 2022 | Current Debate on Ethical AI



Section 1: Key Ethical Issues in AI

Introduction to key ethical issues arising from big data and AI in the health sector, including bias, explainability, and transparency

- Alessandro Blasimme (ETH Zurich) and Agata Ferretti (ETH Zurich): "Key debates on ethical issues in big data and AI"
- Harpreet Sood (NHS England): "AI and digital innovations for health"

Deep dive: critical issues in AI

- Menna El-Assady (ETH AI Center): "Biased datasets and AI explainability"
- Abdel Labbi (IBM Research, Zurich): "Explainability and security issues in AI"