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# Fair Medicine and Artificial Intelligence: Chances, Challenges, Consequences

3 - 5 March 2021

Center for Gender and Diversity Research (ZGD), Eberhard Karls Universität Tübingen

Programme

| *12:30      | Welcome and Introduction<br>Regina Ammicht-Quinn and Renate Baumgartner   |
|-------------|---|
| 13:00-14:30 | PANEL 1: SOCIOTECHNICAL PERSPECTIVES 1 – ANALYSIS   |
|             | Chair: Silja Samerski   |
|             | N. Elida Detfurth (York University, Canada)<br>Categorization and Classification in AI Data-driven Applications<br>for Dementia Care: Results from a Thematic Analysis and a<br>Neuroanthropology Approach            |
|             | Ann Kristin Kühnen (Technische Universität Dresden, Germany)<br>Black Bodies at Risk. A Sociotechnical Analysis of an<br>Algorithmic System for Health Risk Prediction  |
|             | Corinna Bath (Technische Universität Braunschweig) / Silja<br>Samerski (Hochschule Emden Leer, Germany)<br>Sociotechnical Practices of Objectivation:<br>A Framework for Examining Al-based Health Apps for Diagnosis |
| 14:30–14:50 | Short Break   |
| 14:50–16:20 | PANEL 2: SOCIOTECHNICAL PERSPECTIVES 2 – IMAGINING THE FUTURE   |
|             | Chair: Paul Martin  |
|             | Karolina Napiwodzka / Kinga Ciereszko / Ewa Nowak (Adam<br>Mickiewicz University, Poznań, Poland)<br>Are Human Presence and Conscience Necessary in Pharmacy?<br>A Thought Experiment                                 |

Paul Martin / Jin Ding (University of Sheffield, UK) Fixing the Broken Model: AI, Rare Disease Patient Organisations and the Repurposing of Orphan Drugs

Waltraud Ernst (Johannes Kepler Universität, Linz, Austria) Questioning Standards of Medical Research with AI?

- 16:20–16:40 Short Break
- 16:40–18:10 Кеулоте, Q&A

Corinna Bath (Technische Universität Braunschweig, Germany) How to Design Socially Just ICT and AI Applications in Medicine? Entangling Feminist STS and Technology Design

Moderation: Marion Müller

## THURSDAY, 04 MARCH 2021

| 12:45       | Welcome   |
|-------------|---|
| 13:00–14:30 | PANEL 3: HEALTHCARE-RELATED APPLICATIONS AND GENDER   |
|             | Cordula Kropp / Karolin Tampe-Mai (Universität Stuttgart,<br>Germany)<br>Smart Healthcare Systems and Social In/Justice   |
|             | Sara Morais dos Santos Bruss (Technische Universität Dresden,<br>Germany)<br>"Surrogate"-Robotics and the Care-Revolution |

Eduard Fosch-Villaronga / Tess Verhoef / Hadassah Drukarch / Pranav Khanna (Leiden University, Netherlands) Diversity for AI in Medicine: Informing the Governance of AI for Medicine with Knowledge on Gender Biases

14:30–14:50 Short Break

# 14:50–16:20 PANEL 4: EXAMPLES BETWEEN THE GLOBAL NORTH AND THE GLOBAL SOUTH – POSTCOLONIAL PERSPECTIVES

Chair: Sara Morais dos Santos Bruss

Katerina Vlantoni / Aristotle Tympas / Eleni Chatzimichali / Kornilia-Maria Papanastasiou-Toli (National and Kapodistrian University of Athens, Greece) Expectations Concerning the AI-Medicine Integration in the European South: The Case of Greece

Somto Mbelu (Erasmus University Rotterdam, The Netherlands) Ethical Concerns in Designing Al-Enabled, Health Insurance Platforms in Nigeria

Astha Jaiswal (Central University of Gujarat, Gandhinagar, India) Artificial Intelligence in India and Responsible Innovation: A Case Study of Telemedicine in India

Tereza Hendl / Tiara Roxanne (Ludwig-Maximilians-Universität, München, Germany) Digital Surveillance in a Pandemic-response: What Bioethics Ought to Learn from Indigenous Perspectives

16:20–16.40 Short Break

16:40–17:40 Networking event (on Wonder)

#### FRIDAY, 05 MARCH 2021

# 12:45 Welcome

### 13:00–14:30 PANEL 5: DISCOURSES AND KNOWLEDGE PRODUCTION

Chair: Robin Williams

Kevin Wiggert (Technische Universität Berlin, Germany) Data-driven Clinical Decision Support Systems

Vassilis Galanos / Robin Williams (The University of Edinburgh, UK)

Towards a Responsible Framework. Machine Learning in Radiology: Balancing Between Accuracy and Instability and Learning from Past Pitfalls

Renate Baumgartner (Eberhard Karls Universität Tübingen, Germany) Gordian Knots in Health Equity Through Al

14:30–14:50 Short Break

#### 14:50–16.20 PANEL 6: ETHICAL PERSPECTIVES

Chair: Christian Lenk

Christian Lenk (Universität Ulm, Germany) Artificial Intelligence for the Adjustment of the Need Principle? Considerations Regarding the Inequality of Health Care in Germany.

Paola Lopez (Universität Wien, Austria)

# Bias Does Not Equal Bias. A Sociotechnical Typology of Bias in Data-based Algorithmic Systems

Thomas Grote (Eberhard Karls Universität Tübingen, Germany) / Geoff Keeling (Stanford University) On Algorithmic Fairness in Medical Practice

Thomas Gremsl / David Schneeberger (University of Graz, Austria) Interdisciplinary Comments on the Proposed European Framework of Ethical Aspects of Artificial Intelligence, Robotics and Related Technologies

- 16:20–16:40 Short Break
- 16:40–18.10 KEYNOTE, Q&A Kadija Ferryman (New York University, Tandon School of Engineering, USA) Health Equity in Precision Medicine: Ethics and Policy Approaches

Moderation: Regina Ammicht-Quinn

18:10- 18:40 FINAL DISCUSSION "LESSONS LEARNED"

Moderation: Regina Ammicht-Quinn

\*all times given in CET