ISPM Institute of Social and Preventive Medicine
BIHAM Berner Institut für Hausarztmedizin
DCR Department of Clinical Research

UNIVERSITÄT BERN

The Bern Lectures

Janna Hastings is Assistant Professor of Medical Knowledge and Decision Support at the Institute for Implementation Science in Health Care, Faculty of Medicine, University of Zurich, and Vice-Director of the School of Medicine at the University of St. Gallen. She holds a PhD in Computational Biology from the University of Cambridge (2019) and Masters in both Computer Science (2011) and Philosophy (2012). Her interdisciplinary research explores how sophisticated computational approaches can advance medical research and support clinical practice, with a particular focus on how new, powerful and multi-modal approaches to artificial intelligence can be applied to a wide range of clinical use cases and how such approaches can be made more effective, generalizable and interpretable through 'neuro-symbolic' approaches that harness explicit data semantics.

«Ontologies, Data and Consensus-Building for Clinical Research»

While the volume of clinical research is rapidly increasing, it is difficult to gain an overview or use the overall body of evidence to answer specific questions for policy and practice due to fragmentation of the evidence base into different silos. Integrating data from evidence across such silos and building up consensus to inform policy and practice is challenging and can only partially be supported by algorithmic approaches at present, due to subtle context-specific information and the range of different ways that such data is described and reported in the literature. Various technological innovations aim to address this challenge: Ontologies are semantic standards that allow data to be more widely integrated and shared, and they support consensus-building through fostering a common understanding of research outputs. However, they are also time-consuming to build and apply manually. Modern 'large language models' offer a flexible and powerful technology that can be applied to a wide range of text and data processing tasks, however, they can also introduce errors and biases. In this talk, through case studies in smoking cessation and oncology treatment planning, I will discuss how these technologies can be used together to transform data and evidence into integrated, actionable insights.

Join the lecture on Thursday, 21 November 2024 at 4:00 pm (CET)

on-site at Mittelstrasse 43, room 320

or on Zoom:

https://unibe-ch.zoom.us/j/66578982307?pwd=s3bPKp3abn34tAHRqyv2ZAUUe3yjnQ.1

Meeting ID: 665 7898 2307 **Passcode: 114433**

Join us for snacks and drinks after the talk for a fantastic networking opportunity with fellow participants and the speaker!