Venice, Island of San Giorgio Maggiore

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**Info Sheet |** Artificial Intelligence and Global Healthcare Equality

How to pass from promises to practices? What does AI in medicine need to work in a suitable fashion?

Keynote Speaker: Amelia Fieske, Technical University of Munich (G)

Many expect AI to help solve complex problems in medicine by improving the quality and access to care, refining diagnostics, offering new, more targeted therapies or reducing costs. But this is only one side of the coin.

**The most worrying aspect of Artificial Intelligence is that it can exacerbate existing structural inequalities in healthcare and global health provision**. So how do we make the move from the promises of AI to practical improvements in the field? What does AI need in medicine in order to work properly?

The issue of infrastructure

The results of research coordinated by Amalia Fiske on the use of artificial intelligence in intensive care units around the world highlight a bitter reality. **In most cases, even intensive care units do not have basic connectivity between bedside devices and electronic medical records systems.** This is crucial for automatically importing necessary data and being able to use any artificial intelligence system.

The lack of basic infrastructure, even in middle- and high-income settings, does not guarantee that artificial intelligence can be used effectively**.** **In order to promote equality in global health, it is necessary to think about what** the priorities are, and sometimes these priorities correspond with investing in basic issues that are much more mundane than AI, such as access to services or the procurement of health materials and devices. **Firstly, therefore, we need to build an infrastructure that covers both material goods and the human elements**.

**If artificial intelligence systems are to fit into a healthcare scenario where gaps and deficiencies are already to be found, they will certainly end up worsening inequalities**. If we look at the US healthcare system, on the one hand, there is a segment of the population that has access to a very high level of care; on the other hand, there are groups that due to socio-economic and insurance issues do not have access to healthcare at all. Therefore, implementing artificial intelligence solutions in this system will only serve those who are already able to benefit from it, without bringing any kind of contribution in terms of raising the levels of basic care.

The issue of the algorithm

There are many other cases where AI implemented in medicine has exacerbated existing inequalities. The famous study conducted by Ziad Obermeyer, *Dissecting racial bias in an algorithm used to manage the health of populations,* examined a predictive algorithm to identify and help patients with complex health needs. The algorithm in question used health care costs as a proxy for health and health needs by generating a large degree of racial bias. The study **found that Black patients received lower levels of care than their white counterparts** because the algorithm assigned them a lower risk score, meaning they would have had to be sicker to receive the same level of care than white patients.

The issue of equity also concerns Europe, for despite the presence of national healthcare systems, many technological innovations and implementations using artificial intelligence are developed in one context and then used in another. This is what the scientist Abeba Birhane describes as **‘algorithmic colonialism’** because **many technical solutions are developed in the Global North to solve problems in countries where the social emergency is more acute, creating even stronger forms of dependency.**

Viewing AI as part of a complex ecosystem

**We need to think about AI applications for healthcare through a socio-technical lens, a broader ecosystem** that considers infrastructure, people, relationships, organisational policies and regulation.

The research group coordinated by Amalia Fiske is developing an innovative approach called **participatory algorithmic justice** that sets standards for collaborative research in order to better understand who and what is harmed by AI. The approach investigates how the economic, cultural and political harm generated by AI is experienced by structurally marginalised groups through multisite ethnographic work.

Amalia Fiske

**A cultural anthropologist, she is a senior research associate at the Institute for the History and Ethics of Medicine at the Technical University of Munich (TUM).** Her work focuses on the intersection of cultural anthropology, feminist studies of science and technology, social medicine and bioethics, environmental studies and humanities. She received her PhD in cultural anthropology from the University of North Carolina at Chapel Hill (USA), completed a postdoctoral fellowship at Kiel University and conducted extensive field research in Ecuador before joining the TUM.

Amelia Fiske has over ten years of experience in conducting interdisciplinary qualitative and ethnographic research in two key areas: 1) anthropological and critical social science approaches to bioethics, artificial intelligence and digital and socio-technical changes in knowledge production; 2) ethnographic attention to issues of socio-ecological justice, experiences of toxicity in the context of extraction, participatory research methods and graphic arts.

**Amalia Fiske will be a keynote speaker at the *Global Health in the Age of AI. Charting a Course for Ethical Implementation and Societal Benefit* Symposium on 7 November 2024, at 5.30 pm.**

To follow the **live streaming of the event: access the** [**Fondazione Giorgio Cini**](https://www.youtube.com/user/FondazioneGCini) **YouTube channel**