

Policy approaches to socio-technical causes of bias in algorithmic systems – what role can ethical standards play?

Ansgar Koene

University of Nottingham

Despite warnings about Bias in Computer Systems going back to at least 1992, it has taken concerted efforts by groups of researchers like FAT/ML (Fairness, Accountability and Transparency in Machine Learning) and news and media reports highlighting discriminatory effects in data driven algorithms (e.g. recidivism prediction) to dispel the naïve-optimistic myth that the logic/mathematics of computation would automatically result in objectively unbiased outcomes.

Starting from a brief overview of key challenges in the design and use of data driven algorithmic decision making systems I will focus in on the inherently socio-technical nature of real-world applications that give rise to concerns about bias.

Against this background I will discuss the use-cases and design framework currently under consideration in the IEEE P7003 Standard for Algorithmic Bias Considerations working group, with comparison to the findings coming out of the UnBias project on the lived experience and concerns of teenaged digital natives regarding their every-day interactions with algorithmically mediated online media.

I will conclude with a review of some of the policy making initiatives that were recently launched by professional associations (e.g. ACM principles; IEEE Global Initiative on Ethical Considerations in AI and Autonomous Systems), industry led organizations (e.g. Partnership on AI) and regional/national government bodies (e.g. EC Algorithmic Awareness Building; TransAlgo in France; UK parliamentary inquiries).

Ansgar Koene is Senior Research Fellow at the Horizon Institute for Digital Economy Research at the University of Nottingham. He is Co-Investigator on the UnBias project whose goal is to emancipate users against algorithmic biases for a trusted digital economy. Ansgar is chair of the IEEE working group for the development of the Standard for Algorithmic Bias Considerations.