

## **Deciding about, by, and together with algorithmic decision making systems**

Initiative: Künstliche Intelligenz – Ihre Auswirkungen auf die Gesellschaft von morgen

Ausschreibung: Künstliche Intelligenz – Ihre Auswirkungen auf die Gesellschaft von morgen - Full Grant (nur nach Aufforderung)

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Artificial intelligence ("AI"), according to its godfather Alan Turing, is "the science and engineering of making intelligent machines, especially intelligent computer programs." AI programs are of varying sophistication, with the most advanced employing complex "machine learning" techniques. For this, machine learning algorithms are used to deduce decision rules from input data and store them in, e.g., decision trees or neural networks (algorithmic decision making; "ADM"). Over time, the AI tool improves itself by learning from its past decisions, correct or incorrect. The overarching ambit of this project is to examine whether there are limitations to this kind of ADM, within the range of AI systems used today. ADM systems are becoming increasingly popular, especially within notoriously cash-strapped criminal justice systems. In the USA, major civil liberties unions such as the ACLU have even advocated their use at all stages of the criminal process to avoid possible human biases. That increasing popularity of ADM within the CJS, coupled with the extremely grave potential consequences for individuals when it comes to errors of any CJS decision, makes the CJS an ideal research area to compare the following: (i) on the one hand the various ways in which humans alone make decisions about other humans compared with how ADM systems alone make the same decisions about humans, with (ii) the ways in which humans in conjunction with ADM systems take decisions about other humans - but also (iii) the limits of the use of ADM systems. A very closely related question is (iv) how a given polity decides whether and how to use an ADM system within its CJS.

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**Open Access-Publikationen**

**How to regulate algorithmic decision making: A framework of regulatory requirements for different applications**

**Evaluating the evidence in algorithmic evidence-based decision-making: the case of US pretrial risk assessment tools**

**Between technochauvinism and human-centrism. Can algorithms improve decision-making in democratic politics?**

**Effectiveness dominates accountability in citizens perceptions of algorithms**

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Es werden die Institutionen genannt, an denen das Vorhaben durchgeführt wurde, und nicht die aktuelle Adresse.

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