

Social impacts of algorithmic decision-making: A research agenda for the social sciences | Sage Journals

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Academic and public debates are increasingly concerned with the question whether and how algorithmic decision-making (ADM) may reinforce social inequality. Most previous research on this topic originates from computer science. The social sciences, however, have huge potentials to contribute to research on social consequences of ADM. Based on a process model of ADM systems, we demonstrate how social sciences may advance the literature on the impacts of ADM on social inequality by uncovering and mitigating biases in training data, by understanding data processing and analysis, as well as by studying social contexts of algorithms in practice. Furthermore, we show that fairness notions need to be evaluated with respect to specific outcomes of ADM systems and with respect to concrete social contexts. Social sciences may evaluate how individuals handle algorithmic decisions in practice and how single decisions aggregate to macro social outcomes. In this overview, we highlight how social sciences can apply their knowledge on social stratification and on substantive domains of ADM applications to advance the understanding of social impacts of ADM.

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