

Technologies of (anti-)discrimination

Perspectives from the philosophy of science and technology

Abstract

In this dissertation, I examine the scientific research, the epistemic assumptions, justificatory strategies, and historical continuities underlying three contemporary technologies of (anti-)discrimination. The (anti-)discrimination technologies examined are AI-based personnel selection, facial analysis AI, and psycho-social technologies that seek to intervene in implicit attitudes. I address debates in which the above technologies are promoted as effective technologies of anti-discrimination, while simultaneously they are criticised as being discriminatory, or at least ineffective in reducing discrimination, for instance in hiring. The debates paint a Janus-faced picture of these technologies. To underline their controversial status, I refer to these technologies as “technologies of (anti-)discrimination.”

My research on technologies of (anti-)discrimination draws on the methods of philosophy of science and technology. My examination of the scientific research, the epistemic assumptions, justificatory strategies, and historical continuities underlying technologies of (anti-)discrimination is based on analyzing written materials. The materials analyzed include popular books, newspaper articles, AI technology research reports, AI marketing materials, as well as scientific research articles by computer scientists, recruitment scholars, and behavioral scientists. My conceptual distinctions, conclusions, and criticism based on analyzing these written materials are informed by several fields of study. These include discrimination studies, political philosophy, legal theory, philosophy of science and technology, science and technology studies, critical management studies, critical data studies, investigative journalism, gender studies, critical race theory, as well as historical and critical research on (social) psychology and psychometrics.

The articles of the dissertation include four main results. First, the contrasting interpretations of technologies as discriminatory or anti-discriminatory depend on contrasting notions of equality, often implicitly, used to evaluate these technologies. Second, the development and employment of technologies of (anti-)discrimination is often based on shared assumptions among academic research, technology development, and users of (anti-)discrimination technologies. Third, the shared assumptions justifying the use of certain technologies of (anti-)discrimination have a century-long history in psychometric testing and psychology, and even in pseudosciences such as physiognomy. The fourth result is that the correctness of certain social and behavioral scientific theories has been mistakenly assumed to legitimize the development of particular technologies of (anti-)discrimination. To analyze such cases, especially facial analysis AI, the dissertation introduces the novel concept of social pseudotechnology.