Algorithms as Generative Mechanisms: A Critical Realist Analysis of Parcoursup

IACR 2025 - Proposal

Vincent Martin-Schreiber

2025-05-20

Abstract

This presentation examines how algorithmic systems shape social reality through the lens of Roy Bhaskar's critical realist framework, using France's Parcoursup university admission platform as a case study. Drawing on critical realism's stratified ontology, the analysis positions source code and algorithms as genuine generative mechanisms operating in the domain of the real, while their execution constitutes events in the actual domain, producing observable social outcomes in the empirical domain. The 2018 transition from Admission Post-Bac to Parcoursup marks a significant shift in French higher education policy, replacing randomized selection with "merit-based" evaluation and introducing university-controlled candidate scoring systems. Through an archaeological analysis of these algorithmic mechanisms, the presentation demonstrates how Parcoursup reinforces existing educational stratification while creating new forms of social sorting that cannot be reduced to code alone. The critical realist perspective reveals the emergent properties arising from interactions between algorithmic and human decision-making, illustrating how code embodies policy choices and social values. This approach challenges purely technical understandings of algorithms by positioning them as causal powers embedded within broader social structures. The presentation concludes by discussing methodological implications for studying algorithmic systems, highlighting the importance of transparency and free and open-source software (FOSS) for effective social research into these increasingly influential mechanisms of social reproduction and stratification.

Keywords: social ontology, algorithmic governance, causal mechanisms, methodology, digital sociology