

Algorithm Accountability, Algorithm Literacy and the hidden assumptions from algorithms

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1 Abstract

Our societies are facing problems that are more and more complex so that decision making is often helped or even delegated to algorithms. Algorithmic decision making (ADM) processes are complex socio-technical systems which interact with society on a large scale. Credit scoring, automatic job candidate selection, predictive policing, or recidivism risk assessment are examples, among others, of already used ADM systems. In this talk, I will start with an overview of what is so far understood as Algorithm Accountability and Algorithm Literacy. I will then focus on algorithms that carry with them modeling assumptions (e.g., machine learning, data-mining algorithms...) and show what effects this has on the interpretation of the algorithms' results and how we could, from a software engineering point of view, bring more explainability.

2 Bio

Dr.-Ing. Julien Siebert holds a master degree in Engineering and a master degree in Artificial Intelligence. He holds a PhD in computer science, from INRIA - Université de Lorraine (Nancy, FR), on the topic of meta-modeling for distributed simulations of complex systems². He later spent 2 years of postdocs in the Theoretical Physics Institute from the TU Berlin³ working on numerical simulations of non-linear dynamics of complex systems (wave propagation, patterns formation and coupled oscillators). Before joining the Algorithm Accountability Lab, in the TU Kaiserslautern, he spent several years at Zalando in Berlin as software engineer and data scientist.

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