

I. Srba “Algorithmic auditing of political biases in recommender systems”

Abstract: External independent and unobtrusive algorithmic audits represent a novel approach on how to observe and measure otherwise invisible characteristics of AI-based algorithms in social media or search engines, e.g., their tendencies and biases in the distribution of political information, in shaping political discourse, or even in promoting misinformation diffusion and radicalization. Such audits have been recently recognized not only in the research works but also in the EU legislation (Digital Service Act, Article 28). Conducting algorithmic audits in a dynamic online environment is, however, a challenging task that requires to prepare representative audit scenarios, automatically execute audits, annotate large amounts of observed data and eliminate potential unwanted confounding factors. These issues are even more eminent in the case of highly-demanded longitudinal and cross-platform audits.

During the lecture, I will provide an overview of algorithmic auditing and existing case studies applied to measure political bias in social media recommender and advertisement systems, or in search engines. I will complement the state of the art description with insights from our award-winning work on algorithmic auditing of YouTube AI-based algorithms and their tendencies to spread misinformation. Finally, I will conclude with analysis of current challenges and open problems that may attract the attention of researchers and practitioners in the near future.