

Prof. Dr. Jörn Grahl: "How Do Recommender Systems Lead To Consumer Purchases?"



In the context of the research colloquium Business Informatics and Data Science, Prof. Dr. Jörn Grahl, Professor for Digital Transformation and Analytics from the University of Cologne, will give a lecture on "How Do Recommender Systems Lead To Consumer Purchases? A Mediation Analysis of A Field Experiment".

Date and location: 19 April 12.15 C 11.008

Abstract:

How do recommender systems generate product sales? Extant research neglects to examine the causal paths through which the use of recommender systems leads to consumer purchases. In this study, we conduct a randomized controlled field experiment on an online book retailer and perform causal mediation analysis to explore the causal paths. Not surprisingly, the results confirm that the use of personalized recommendations increased consumers' propensity to buy and the revenues. More importantly, we find that these economic effects were largely mediated through affecting the consumers' consideration sets. Specifically, the recommender system increased both the size of the consideration set (breadth) and how consumers involved with each alternative in consideration (depth). The two changes went on to increase consumers' propensity to buy and the revenues. In addition to uncovering the causal pathways, the results contribute to resolving an ongoing debate about how recommender systems affect the size of consideration sets. Furthermore, we find that the proportion of the total effects mediated through the breadth of the consideration set is larger than that mediated through the depth. The findings yield important implications about how online retailers can optimize the design of their shopping sites while using recommender systems.