

Do algorithmic job recommendations improve search and matching? Evidence from a large-scale randomised field experiment in Sweden

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25 January 2022

We design a job recommender system that recommends job ads to Swedish job seekers. The job recommender system is hosted on the largest online job board in Sweden, and it is based on a collaborative filtering machine-learning algorithm. Within a two-sided randomized experiment, we evaluate how job seekers respond to job recommendations (clicks, applications, job finding, earnings), and whether employers fill their vacant jobs at a faster rate. This paper presents preliminary results for year 2021, based on over 1 million users. We find that job seekers increase by 0.6% the number of daily clicks on any vacancies. The treatment effect is much larger for recommended vacancies, as they increase by 57% their clicks and by 34% their applications on recommended vacancies, substituting away from non-recommended jobs. This leads job seekers to click and apply to vacancies that are further away from their reference search in the occupational dimension. They increase their search breadth. We do not find average effects on job finding rates, or labor earnings though. From the employer perspective, being recommended increases overall number of clicks and applications received (by around 1%).