

U.S.E. Research Institute Working Paper Series 23-12

Resilience to Automation: The Role of Task Overlap for Job Finding

Diego Dabed¹ Sabrina Genz^{1,2,3} Emilie Rademakers^{1,2} ¹Utrecht University School of Economics, Utrecht University ²Technology & Policy Research Initiative (TPRI), Boston University ³Institute for Employment Research (IAB)

December 2023

Abstract:

We investigate the role of task similarity for the resilience of unemployed job seekers exposed to automation of routine tasks. Using a language model, we establish a novel job-to-job task similarity measure. Exploiting the resulting job network to define job markets flexibly, we find that only the most similar jobs affect job finding. Since automation-exposed jobs overlap with other highly exposed jobs, task-based reallocation provides little relief for affected job seekers. We show that this is not true for more recent software exposure, for which task overlap mitigates the distributional consequences. Our counterfactual simulation highlights the potential harm of increasing job mobility as it strengthens the divided exposure of job seekers to routine-task automation.