Seminario de Microeconomía Aplicada - Is the Whole the Sum of its Parts? The Effects of Partial Automation on Jobs, Demand for Skills, and Wages.

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Abstract: This paper studies the effects of partial automation (i.e., the creation of technology capable of automating some but not all components of a job). We consider a model where jobs entail a bundle of tasks, workers may trade the output of the requisite tasks at a cost, and workers in a job may have varying productivity across its tasks. We first present an irrelevance result. If workers can exchange tasks with each other at no cost and they are equally good at all components of a job, whether all or some of the tasks performed in a job are automated is irrelevant for worker outcomes. As in Acemoglu and Restrepo (2020), all that matters is the total mass of tasks lost by each skill group. We then consider a richer environment where trading tasks entails communication or coordination frictions and workers who sort on a job are particularly productive at some of the components of that job—its core tasks. We show that a technology capable of automating the core components of a job (but not all tasks in this job) results in: • reduced wage dispersion among workers in that job; • lower relative wages for workers initially in the job; • entry of relatively-low skill workers into the job. Instead, a technology capable of automating the peripheral (non-core) components of
a job results in: • increased wage dispersion among workers in that job; • higher relative wages for workers initially in the job; • exit of relatively-low skill workers out of the job. We plan to explore these results empirically by identifying core and peripheral tasks
using ONET data.

About the exhibitor: Pascual Restrepo, desde 2024 es profesor asociado del Departamento de Economía de la Universidad de Yale. Entre 2023 y 2024 fue profesor asociado de la Universidad de Boston. Entre 2017 y 2023 fue profesor asistente de la Universidad de Boston. Profesor investigador del grupo de fluctuaciones económicas y crecimiento de la oficina nacional de investigaciones Económicas, NBER. Miembro de la Fundación Cowles. Su investigación se enfoca en explorar las implicaciones del cambio técnico sobre la desigualdad y la productividad: (i) los orígenes de la tecnología, (ii) los efectos de la tecnología sobre la desigualdad y la productividad.

Exposure time: 1 hora y 30 minutos.

Fuente: https://www.banrep.gov.co/en/seminario-microeconomia-aplicada-whole-sum-its-parts-effects-partial-automation-jobs-demand-skills