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Report

Prediction machines, insurance, and protection: An alternative perspective on AI's role in production

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Editor's Note:

This is a Brookings Center on Regulation and Markets working paper.

Abstract

Recent advances in AI represent improvements in prediction. We examine how decisionmaking and risk management strategies change when prediction improves. The adoption of AI may cause substitution away from risk management activities used when rules are applied (rules require always taking the same action), instead allowing for decisionmaking (choosing actions based on the predicted state). We provide a formal model evaluating the impact of AI and how risk management, stakes, and interrelated tasks affect AI adoption. The broad conclusion is that AI adoption can be stymied by existing processes designed to address uncertainty. In particular, many processes are designed to enable coordinated decisionmaking among different actors in an organization. AI can make coordination even more challenging. However, when the cost of changing such processes falls, then the returns from AI adoption increase.

Download the full working paper here.

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