# Marketing Colloquia
## Presentation Abstract
## 2022 Spring

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*741 JMHH*
*12:00 PM* to 1:10 PM
**Zoom**: https://upenn.zoom.us/j/92270394591

## THE DISRUPTIVE ECONOMICS OF ARTIFICIAL INTELLIGENCE SYSTEMS

*ABSTRACT*:

Analyses of AI adoption focus on its adoption at the individual task level. What has received significantly less attention is how AI adoption is shaped by the fact that organizations are composed of many interacting tasks. AI adoption may, therefore, require system-wide change which is both a constraint and an opportunity. We place this idea in historical context, emphasizing how general purpose technologies diffuse. We then model an industry with multiple tasks that may be part of a modular or non-modular system. We find that reliance on AI, a prediction tool, increases decision variation which, in turn, raises challenges if decisions across the organization interact. Modularity, which leads to task independence rather than system-level inter-dependencies, softens that impact. Thus, modularity can facilitate AI adoption. However, it does this at the expense of synergies. By contrast, when there are mechanisms for inter-decision coordination, AI adoption is enhanced when there is a non-modular environment. Consequently, we show that there are important cases where AI adoption will be enhanced when it can be adopted beyond tasks but as part of a designed organizational system. We then link this back to barriers to AI adoption in industry.

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