



Jindal School of Government and Public Policy (JSGP) cordially invites you to the

OPEN LECTURE

on

KNOWING THE UNKNOWN: EXPERIMENTATION UNDER DELAYED SUCCESS



SPEAKER
SHRAMAN BANERJEE
Assistant Professor of Economics
Shiv Nadar University

SPEAKER'S BIO:

Shraman Banerjee is an Assistant Professor of Economics at Shiv Nadar University. He completed his PhD in Economics from Southern Methodist University, USA and Masters in Quantitative Economics from Indian Statistical Institute, Delhi. He works in areas of Microeconomic Theory, Information Economics and Experimental Economics.

ABSTRACT:

We consider a continuous-time dynamic principal-agent model with experimentation in a mixed-news setting. Our model is an exponential two-armed bandit framework, featuring both known and unknown risky arms, where the unknown arm can be either good or bad. The agent can achieve success and failure from both known and good unknown risky arms, while failure can be achieved from a bad unknown risky arm. We assume success to be conclusive i.e. a single success truly reveals the unknown arm's type, whereas failures are inconclusive. Although success arrives at a lower rate on the unknown risky arm than on the known arm, the unknown arm generates higher revenue for the experimenting agent. To motivate the agent to experiment with the unknown arm in spite of delayed success, the principal proposes a mechanism that rewards failures and punishes successes.

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