SCHOOL OF INFORMATICS, COMPUTING, AND ENGINEERING

INFORMATICS COLLOQUIUM SERIES

Emőke- Ágnes Horvát

Northwestern University

Friday, March 30, 2018

3:00 PM

Luddy Hall 1106

Early Signals for the Wisdom of Crowds on the Online Capital Market

Abstract: Crowds have been argued to possess transformative collective intelligence benefits that allow superior decision-making by untrained individuals working in low-information environments. Classic wisdom of crowds theories are based on the study of large groups of diverse and independent decision-makers. Yet, most human decisions are reached in arrangements that violate these criteria. This observation puts forth a key question: Are there new expressions of collective intelligence that enable better outcomes? In this talk, we explore whether crowds furnish collective intelligence benefits in crowdfunding systems. Crowdfunding has grown and diversified quickly over the past couple of years expanding from funding aspirant creative works and supplying pro-social donations to enabling large citizen-funded urban projects and providing commercial interest-based unsecured loans. In the latter setting we find evidence for collective intelligence signals in financing: Opinion diversity and information aggregation speed predict who gets funded and who repays even after accounting for traditional measures of creditworthiness. Most importantly, crowds work best in correctly assessing the outcome of high risk projects. Furthermore, diversity and speed serve as early warning signals when inferring fundraising based solely on the initial part of the campaign. These findings broaden on the one hand the field of crowd-aware system design and inform discussions about the augmentation of traditional financing systems with tech innovations. On the other hand, they contribute to the growing literature on the wisdom of crowds.

Biography: Ágnes Horvát is an Assistant Professor in the Department of Communication Studies at Northwestern University. She is also an affiliated faculty of the Northwestern Institute on Complex Systems (NICO) and the Department of Management and Organizations of the Kellogg School of Management (by courtesy). She seeks to measure, understand, and forecast the collective behavior of interconnected crowds in large-scale sociotechnical systems like peer-to-peer platforms. Her current research develops empirical and theoretical methods to identify expressions of collective intelligence and opportunities for innovation in crowdsourcing communities, detect shared misconceptions and biases in online capital markets, as well as support creativity and predict success in culture industries. Her work work at the intersection of computational social science and social computing uses an interdisciplinary data-driven approach and builds on techniques from network science, machine learning, statistics, and exploratory visualization. Horvát has been the recipient of many fellowships and academic excellence awards, most recently a CISE CRII award from the National Science Foundation.

INDIANA UNIVERSITY
SCHOOL OF INFORMATICS, COMPUTING, AND ENGINEERING