

SHIVI KALRA

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EDUCATION

Binghamton University, State University of New York

Ph.D. Economics Candidate; GPA: 3.5

Expected May 2019

Christ University, Bangalore, India

Master of Arts in Economics

May 2010

University of Delhi, India

Bachelor of Arts in Economics and Political Science

May 2008

FIELDS OF SPECIALIZATION

Macroeconomics and Econometrics

RESEARCH

Job Market Paper

"Modeling social learning process as an epidemic using twitter data"

An important debate in macroeconomics is how people form expectations. Rational expectations and adaptive learning approaches assume that all agents in the economy are as good as econometricians. In reality, most people learn by talking to their neighbors, relatives, and friends. However, obtaining data on expectations is extremely difficult. Most of the surveys of expectations are limited to a few economic variables like inflation, unemployment etc. This paper proposes a new way of modeling social learning by using an epidemiological model. Twitter data is used as a proxy for people talking to each other. Disease and expectations both spread infectiously among people before dying out. Predicting the trend of spread of expectations is important for policy formation. Least squares estimation is used to estimate the speed of transmission of both economic and noneconomic news items among people. The estimates obtained by fitting Twitter data on the epidemiological model are compared to the rate of spread of different epidemics. How quickly and effectively does news spread is another question of interest. Fast transmission of news implies that people adjust their expectations quickly vs. slow transmission that implies sticky information. The results suggest that economic news spreads relatively slowly, and there is heterogeneity in person to person learning. Information transmission on twitter spreads like a flu which changes its course over a period of time. However, unlike epidemics each person has a different probability to spread news due to the presence of influencers on Twitter.

*Paper selected for poster presentation at AEA 2019 conference to be held at Atlanta

OTHER RESEARCH

Other Papers

- "Demand-Driven News Shocks, Animal Spirits, and Consumer Confidence"
 - "Incorporating person to person learning in cobweb model"
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TEACHING EXPERIENCE

Instructor, Johns Hopkins Center of Talented Youth

June 2018 -August 2018

Courses Taught: Fundamentals of Microeconomics, Game Theory and Economics

Instructor; Binghamton University

June 2016 - June 2017; Summer 2016, 2017, 2018

Courses Taught: Intermediate Macroeconomics, Principles of Macroeconomics

Teaching Assistant; Binghamton University

August 2013 - Present

Courses Taught: Advanced Macroeconomics, Intermediate Macroeconomics, Principles of Macroeconomics, Principles of Microeconomics, Economics of Fixed Income Markets, Economics of Public Programs, Energy Economics, International Trade

- Taught two classes of highly gifted students in an academically rigorous environment at Johns Hopkins Center for Talented Youth
- Continuing as a Teaching Assistant/Instructor at Binghamton University
- Prepared syllabus, lectures, innovative class activities, pre and post assessments
- Planned activities like debates, role-play simulations, analyzing recent newspaper articles to reinforce the theoretical concepts taught during lectures
- Taught two semesters of online distance learning course where discussions, group activities like a term paper and business case study was incorporated

MASTER'S THESIS

Christ University; Bangalore, India

Dissertation on "Performance of Special Economic Zones and their contribution to Total Exports, FDI Inflow and Employment Generation in India between 1998-2007"

Conducted an analytical and exploratory study by analyzing the data on trends in the growth of exports, pattern, and trend of FDI inflow and employment generation in both public and private SEZs in India with the help of various statistical tools like percentage, covariance, and Compound Annual Growth Rate

KEY SKILLS

Econometric Skills: VAR estimation, Predictive Modeling, Time Series Analysis; Least Squares Regression; Maximum Likelihood estimation

IT Skills: R, Matlab, Stata, Python, Lyx, MS Project, Access, Excel, PowerPoint

Significant experience in using commercial financial and research datasets including Compustat, FactSet, Bloomberg, Hoovers, SNL Financial

WORK EXPERIENCE

Rashtriya Mahila Kosh; Microfinance Institution Under Ministry of Women and Child Development; India; Intern

June 2015-August 2015

Role: Researched on enhancing loan repayment mechanism using competitor analysis, data analysis, and in-person interviews to reduce the current overdue principal of approximately 5 million USD

Deloitte Consulting, India; Business Analyst, Strategy & Operations **June 2010-December 2011**

Role: Worked on Deloitte internal and client projects for insurance, banking, and securities firms. Performed research, data analysis, competitive benchmarking and project management. Worked at both the client site at New York and back office at Hyderabad, India. Select projects include:

Onsite Projects (US)

- Assessed information and reporting architecture of an insurance company to identify existing issues, develop a conceptual framework for the target state architecture and recommend a high-level technology roadmap
- Evaluated underwriting and policy administration processes across front and back offices of an insurance company to assess specific opportunities in order to reduce its operating costs, improve service levels and its operating model

Offshore Projects (India)

- Worked on a large data center consolidation project for an international mutual insurance company. Owned critical daily reporting function to a stakeholder group of nearly 100 that spanned the globe.
- Worked on enhanced Third Party Administrator integration and automation project for the claims department of an insurance firm
- Outlined the structure of the alumni outreach program through social media and evaluated options to build a robust channel for future engagements with Deloitte Alums
- Administered the development of SharePoint for the strategy and operations team to promote knowledge sharing and management

National Hydroelectric Power Corporation, India; Intern – Finance **April 2009-May 2009**

Role: Worked on project appraisal for Durgaduani mini tidal wave energy plant in West Bengal, India involving a benefit-cost analysis

CO-CURRICULAR ACTIVITIES

- Senator of Economics Department Graduate Student Organization for the academic year 2014-15
- Started and actively managing an official LinkedIn economics group to connect with alumni and current students of Binghamton University. This platform provides quick access to upcoming job openings, conferences, department seminars, and research discussions.

REFERENCES

Professor Wei Xiao	Professor Florian Kuhn	Professor Barry Jones
Dissertation Advisor	Dissertation Committee	Dissertation Committee
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