

Big Data in Finance

On Thursday and Friday, October 27-28, 2016, the Office of Financial Research and the University of Michigan's Center on Finance, Law & Policy will host their second annual joint conference in Ann Arbor, Michigan. This year's conference is focused on "Big Data: Improving the Scope, Quality, and Accessibility of Financial Data." The conference will bring together a wide range of scholars, regulators, policymakers, and practitioners to explore how Big Data can be used to address pressing financial sector problems. As new data sets emerge, vast quantities of financial data may help to identify emerging risks, enhance financial stability, bolster consumer protection, and increase transparency in the financial system. At the same time, however, Big Data raises significant questions about protecting security and privacy; ensuring data quality; protecting against discrimination or privacy intrusions; managing and analyzing enormous data sets; synthesizing and presenting data in usable form; and sharing data across regulators, researchers, and the public. The conference will explore opportunities to make financial data more accessible and more secure, as well as more useful to regulators, market participants, and the public.

Thursday, October 27, 2016

Panel 1: Data Privacy and Security

As the number and scope of available data sets proliferate, can we help ensure that proprietary data remains private and secure, on one hand, and useable and shareable within and among organizations, on the other hand? This panel will explore challenges of financial data privacy and security in an increasingly interconnected world.

Panel 2: Data Quality, Data Gaps, and Information Arbitrage

Private-sector firms, regulators, and academic researchers alike face challenges regarding the reliability and availability of market-wide financial data. Even when reliable data is available, moreover, "stovepipes" within firms and within and among regulatory agencies can create data gaps that inhibit functionality. In addition, some have argued that disclosure obligations may incentivize firms to engage in "information arbitrage" by hiding information or otherwise altering their behavior to avoid reporting obligations. This panel will examine strategies for closing data gaps and obtaining high-quality, reliable, market-wide financial data.

Panel 3: Big Questions about Big Data

Notwithstanding all of its promise and potential, Big Data raises a number of significant ethical, legal, and socio-political questions. Is Big Data used in discriminatory ways and, if so, how can discrimination be prevented? Is Big Data invading our privacy? Who owns Big Data, and what does it mean to have ownership rights? How should society think about power and governance in a digital world? This panel explores the big questions about Big Data.

Friday, October 28, 2016

Panel 4: Data Modeling and Analytics

What is the future of financial data modeling and analytics? This panel explores cutting-edge techniques including agent-based modeling, machine learning, textual extraction and computational representation, and predictive analytics, and explores potential applications to financial markets.

Panel 5: Data Integration and Visualization

What are the most significant barriers data scientists face in integrating and reconciling various types and sources of data, including issues of standards, unique identity, ownership, and semantic translation? How should users efficiently and effectively integrate different data? What organizational behavior, incentive, and design issues or techno-cultural problems arise in assembling, analyzing, and deploying data? Moreover, how should data scientists represent information in ways that maximize actionability? This panel will examine approaches for enhancing the functionality and usability of diverse financial data sets.

Panel 6: Data Sharing and Transparency

With appropriate privacy safeguards, enhanced financial data sharing could improve market discipline, augment consumer protection, and unlock new opportunities for research. To that end, could regulatory agencies set up “clean rooms” to share anonymized and de-identified financial data with academic researchers? Can more financial data be released to the public for crowdsourced analysis, like in the Consumer Financial Protection Bureau’s Consumer Complaint Database? Would enhanced data sharing and transparency reduce incentives for data hoarding? Would it empower consumers? This panel will discuss opportunities and challenges relating to data sharing and transparency.