SUPTECH WEEK 2023: DAY 2 TAKEAWAYS

Cecilia Skingsley (Head of the BIS Innovation Hub, at the Bank for International Settlements) emphasized that data is fundamental to the success of supervisory technology, presenting both opportunities and challenges due to its abundance. The need for granular data has never been more critical, and a seamless flow of data between supervisors and supervised entities is essential. While current technology offers some solutions, the ongoing development of more powerful tools over the next two years is expected to enhance these capabilities. SupTech's role is pivotal in advancing risk-based supervision, although challenges persist in transforming conceptual ideas into practical applications. Effective risk-based supervision relies on technical skills, user-friendly tools like heat maps, and continuous feedback mechanisms.

Improved data governance is necessary, focusing on data quality, granularity, standardization, and the use of collaborative tools such as data hubs and APIs to ensure a seamless flow of information. New tools like web scraping and sentiment analysis are revolutionizing data collection and analysis, with methodologies varying between data-first and outcome-first approaches. SupTech requires a blend of technical, domain, and soft skills to adapt to the evolving regulatory and financial landscape.

The role of AI in SupTech is significant, but addressing biases in data and maintaining human oversight are crucial to ensuring fairness and minimizing harm. AI bias often reflects real-world biases, making it imperative to recognize and mitigate these biases before they influence algorithmic outputs. This highlights the importance of keeping a "human in the loop" to manage bias effectively. Implementing AI responsibly involves understanding its mechanics, checking for biases, and establishing clear accountability and security measures.

Cybersecurity is a top global threat, and while AI can aid in combating it, human-assisted responses and cross-border collaboration are also essential. Effective information sharing during incidents and regular, proper training of staff are crucial components of a robust cybersecurity strategy. Supervisory agencies must commit to investing in well-trained staff, seek or develop user-friendly solutions (since even well-trained staff struggle with overly complex tools), and implement a feedback loop to adjust tactics, improve technology, and better serve stakeholders.

SUPTECH WEEK 2023

AGENDA

Content partners

UNIVERSITY OF CAMBRIDGE Judge Business School | Cambridge Centre for Alternative Finance | CAMBRIDGE SUPTECH LAB

BIS

WORLD ECONOMIC FORUM

DAY 2

5 December 2023

KEYNOTE

Cecilia Skingsley
Head
BIS Innovation Hub

SUPTECH-POWERED RISK BASED SUPERVISION

This session explores the role that suptech is playing in enabling and supporting risk-based supervision. Advanced technologies such as big data analytics, machine learning, Natural Language Processing (NLP), and network analysis are being deployed to identify, assess, and classify risks and thus prioritize supervisory actions. The goal is to improve risk identification and management with more effective and efficient utilization of limited supervisory resources. The panel will also discuss the required skills to interpret the output of these systems and integrate insights into the supervisory process.

Haoying (Ivy) Ou
Managing Director of Supervision Data and Analytical Insights
Office of the Superintendent of Financial Institutions Canada

Magno Condori
Deputy Superintendent
Superintendencia de Banca, Seguros y AFP

Javier Tarancon
Head of Information Analysis
Banco de España

Perttu Korhonen
Head of Department Financial Analysis and Innovation
Quatar Financial Centre Regulatory Authority

THE ETHIC AND REGULATION OF AI:
Implications for Suptech

The State of SupTech Report has demonstrated a continued growth in the prominence of machine learning and AI-driven supervisory technologies within financial authorities. Central to this adoption is a requisite discussion and exploration of the ethical responsibilities arising from the widespread adoption of these technologies, particularly focusing on issues of fairness and accountability. This session will feature insights into the evolving legal and regulatory landscape surrounding AI applications, with a specific emphasis on how these frameworks will impact public sector use.

Audience members will walk away with a more nuanced understanding of the multifaceted challenges and opportunities at the intersection of AI, ethics, and regulation in the context of supervisory technologies, fostering a dialogue that guides responsible and compliant implementation in the financial sector.

Gabriele Mazzini
Team Lead-AI-Act-Directorate General CNECT
European Commission

Matt Grasser
Co-Head
Cambridge SupTech Lab

Elizabeth Adams
CEO
EMA Advisory Services

Per Nymand-Andersen
Lecturer
Goethe-Universität Frankfurt

DATA JOURNEY:
Collection, Validation, and Governance

Data is the lifeblood of financial supervision. It is crucial for financial authorities to have efficient processes across the spectrum of the data journey – encompassing collection, validation, and governance. This session will explore the current state of play and how financial authorities are meeting this challenge, both in terms of creating greater efficiency but crucially in adopting user-centric design to ensure that the data tools we create meet the needs of the end user – the supervisor. The panel will discuss how emerging technologies and techniques can potentially transform this data journey and overcome long-standing challenges, as well as the importance of experimentation to this transformation process.

Lewis Webber
Head of Division, RegTech, Data & Innovation
Bank of England

Edita Lukaševičiūtė
Head of Governance
Bank of Lithuania

Noel Guinto
Director, Supervisory Analytics
Banco Sentral ng Pilipinas

Patrick Hoffman
Advisor
BIS Innovation Hub

DATA JOURNEY:
Cybersecurity and Suptech

This session will explore the potential role that emerging technologies and SupTech solutions can play in strengthening cybersecurity frameworks within financial authorities, with reference to recent examples of experimentation.

Beju Shah
Head of Nordic Centre
BIS Innovation Hub

Adrian Waddy
Head of Innovation
(Data Science)
Australian Prudential Regulation Authority

David Whyte
Head of Corporate Security and Cyber Resilience Coordination Centre
BIS Innovation Hub

DATA JOURNEY:
Web and Social Media Scrapers and Sentiment Analysis

Delve into the intricate world of web scraping, unraveling its theoretical underpinnings and practical applications. Explore the supervisory value embedded in the art of collecting and analyzing information from the vast expanse of the internet. Panelists will illuminate the diverse types of data that can be harvested from online sources, providing a detailed exploration of the analyses that can be derived.

Furthermore, we discuss the indispensable role of sentiment analysis and other innovative methods in quantifying unstructured data, unveiling their pivotal value and utility in a supervisory context. This will be an opportunity to gain profound insights into the power of web scraping and how it can revolutionize information gathering and decision-making processes. .

Matt Grasser
Co-Head
Cambridge SupTech Lab

Abhisekh Rana
Senior Data Scientist
Cambridge SupTech Lab

Sanea Daruwalla
Chief & Legal People Officer
Zyte

Christopher Guess
Lead Technologist
Winnow Technologies

THE ETHIC AND REGULATION OF AI:
Algorithmic Fairness

This session convenes deep experts from technical research, academia, and central banking to examine the intricate dimensions of fairness in algorithmic decision-making. The session's primary goal is to delve into the technical advancements, ethical considerations, and real-world implications associated with algorithmic systems. By fostering dialogue among these diverse perspectives, the panel aims to identify collaborative pathways that bridge technical innovation, academic research, and regulatory policies, aiming for a collective approach to ensure fairness and equity in algorithmic outcomes across different sectors.

Matt Grasser
Co-Head
Cambridge SupTech Lab

Kelly Cochran
Deputy Director
Cambridge SupTech Lab

Elizabeth Adams
CEO
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Per Nymand-Andersen
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