

## Introduction to the Data Analytics Management, Governance, and Compliance Minitrack

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With the growing popularity and practice of data analytics, organizations need a framework and methodology that help enforce standardized processes for how data are managed, models are developed, and how developed models evolve over time. Additionally, as the complexity of analytics models increases to support key business objectives, so does the requirement to effectively manage these models. Managing model assets includes deploying processes to guarantee adherence to data and analytics governance policy. In addition, it requires model management capabilities to provide necessary information for regulatory compliance.

Effective organizational management and governance of data analytics practices are necessary in order to mitigate risks, avoid losing critical information including initial model assumptions, maintenance of the methods used for developing underlying analytics solutions, and to document compliance with ethical standards of data management and predictive model deployment.

This mini track examines challenges surrounding theory, frameworks, development, evaluation, and impact of data analytics management, governance, and compliance. The three papers accepted for the minitrack investigate these issues in different ways.

The first paper, titled “Catching the Banksters: The Use of Big Data Analytics in Billion Dollar Regulatory Investigations,” by Daniel Gozman, Wendy Currie, and Jonathan Seddon, focuses on big data technologies to facilitate investigations of rare yet serious regulatory breaches. Based on semi-structured interviews at an eDiscovery and data forensics firm, the authors identify various practices that may help compliance managers in an organization better respond to regulatory investigations and ease the burden of post-crisis regulation.

In the second paper titled “Privacy Preserving Network Security Data Analytics: Architectures and System Design,” by Mark DeYoung, Philip Kobezak, David Raymond, Randy Marchany and Joseph Tront, the authors discuss the need to improve control over potentially sensitive data such as network security data. The authors evaluate appropriate methodologies and discuss a system architecture that de-couples privacy protection efforts from analytic capabilities. Such a system provides sanitized data sets that are representative of the raw data yet without the problems of identifiability.

In the third paper titled “Towards Ethical Big Data Artifacts: A Conceptual Design,” the authors examine the issue of the conflicting interests of individuals and organizations that extract value from big data. The authors of the paper are Olgerta Tona, Ida Asadi Someh, Kaveh Mohajeri, Graeme Shanks, Michael Davern, Sven Carlsson and Miranda Kajtazi. A conceptual design for an artifact is proposed to raise awareness amongst individuals about Big Data ethical issues and to help restore the power balance between individuals and organizations. The proposed framework is grounded in discourse ethics and stakeholder theory and intertwined with the European General Data Protection Regulation (GDPR). Additionally, the authors put forth a design agenda outlining future activities towards building and evaluating the proposed artifact.