

Introduction to the Judgement, Big Data Analytics and Decision-making Minitrack

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Abstract

2023 is the third year that the Judgement, Big Data-Analytics and Decision-making mini-track has been offered. The track's objective is to monitor and advance our knowledge of the convergent technologies of Big Data and analytics and their role in augmenting knowledge for better management decision-making. The track attracted 2 submissions of which one was accepted. The paper offers thoughtful solutions to the business of acquiring, analyzing and applying data to management issues in organizational settings.

1. Introduction

The goal of the Judgement, Big Data-Analytics and Decision-making mini-track is to monitor and advance our knowledge of the convergent technologies of Big Data and analytics and their role in augmenting knowledge for better management decision-making. The emphasis of the track is on the humanistic aspects of knowledge innovation, by investigating how data-analytics, and big data analytics in particular, can be used to support human judgement and organizational knowledge.

Gathering, analyzing and judging reliable data and information, and more importantly, transforming them into actionable knowledge is becoming increasingly critical in decision-making (Intezari & Gressel, 2017; Nicolas, 2004; Abedin et al, 2018). Human judgement, based on experience and knowledge, plays an important role in all facets of decision-making, but may be incomplete in certain decision situations. The study of the transformation of data into useful information and eventually

knowledge and wisdom through the use of increasingly sophisticated analytics for management decision making is an important, emerging field of research (Pauleen & Wang, 2017) and deserves further study.

The paper accepted this year presents a real-world example of how predictive analytics can work.

2. Summary of the Papers

Paper 1: The Relationship Between Twitter Sentiment and Stock Performance: A Decision Tree Approach

Authors: Rongjuan Chen & Ruoxi Dong

Social media has become a communication tool, but also a valuable database for researchers and practitioners to gather information, share knowledge, as well as express opinions about stock performance. The sentiment embedded in social media content can be analyzed to predict stock performance. Although numerous past studies have attempted to predict stock price movement using social media sentiment, some emerging analytical tools, like existing lexicons, may require further testing and validation in a financial decision making context. In this study, we develop and test predictive models for stock price and trend forecasting. By using a large-scale sample of tweets collected from Twitter, related to four companies, Apple, Google, Microsoft, and Netflix, we propose a novel decision tree approach to stock performance prediction. Based on our findings, we then provide theoretical and practical implications and discuss the directions for future work.