Complexity

Special Issue on
Complexity in Forecasting and Predictive Models

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CALL FOR PAPERS

Predictive modeling is a process of creating a model to predict the future behaviour to support decision-making by diagnosing the real-world applications. This emergence of more complex modeling requirements goes hand-in-hand with and underlines the critical importance of advanced analytical methods, like Neural Networks, Evolutionary Algorithms, Chaotic Models, Cellular Automata, Agent-Based Models, Finite Mixture Partial Least Squares (FIMIX-PLS), and so on.

The distinction between naive, complex, and chaotic systems provides an excellent context for advanced forecasting models. In order to develop forecasting and predictive models, we need to better understand the new trends in computational and statistical techniques which could enable making better forecasts. The main complexity is dealing with the increasing variety and changing data streams, which is forcing scholars to adopt innovative and hybrid methods. Today, new technologies and new sources of data are emerging: IoT, Big Data, Neuromarketing, and so forth.

The purpose of this issue is to trigger a substantive discussion on how forecasting models can face the upcoming complexity challenges. We are interested in original and constructive contributions addressing the recent advances of forecasting in wide sense. Large data volumes are daily generated from heterogeneous sources (e.g., e-Health, social networks, marketing, and financial) through new technologies like Cloud Computing, Distributed Artificial Intelligence, Digital Marketing, Internet of Things, and Neuromarketing, among others.

We are interested in original contributions addressing the recent advances of methodological and practical topics related to the complexity in forecasting and predictive models.

Potential topics include but are not limited to the following:

- ▸ Innovative methods for forecasting
- ▸ Machine learning for big data
- ▸ Block chain and cryptocoins forecasting
- ▸ Chaos-based models for forecasting
- ▸ Search and optimization for Big Data
- ▸ Genetic algorithms for forecasting
- ▸ Advanced predictive models using Big Data analytics
- ▸ Predictive models using FIMIX-PLS
- ▸ Methods for sentiment analysis on Big Data
- ▸ Cellular automata for forecasting
- ▸ Evolutionary game theory applications in forecasting
- ▸ Social network analysis using big data
- ▸ Real-world applications of forecasting and predictive models, like anomaly detection, e-commerce, e-health, and so on

Authors can submit their manuscripts through the Manuscript Tracking System at https://mts.hindawi.com/submit/journals/complexity/cfpm/.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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Submission Deadline
Friday, 30 November 2018

Publication Date
April 2019