

## Editorial Preface

# When Business Decision-Making Meets Novel Computational Intelligence

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This regular issue of the *Journal of Organizational and End User Computing* (JOEUC) collects 10 articles.

The first paper, titled “Emotions and Spillover Effects of Social Networks Affective Well Being,” has analyzed the emotional processes that may emerge in non-SNS sites, due to emotions associated with SNS sites. The authors find evidence that positive contagion effects coming from photos with positive emotional gestures may be moderated by such photos’ potential to trigger SNS emotions. The findings show that (1) due to SNS emotions, the propensities to work for or invest in a company represented by a website is reduced. (2) visual elements that may typically be considered as positive may also have negative effects. (3) the emotional structure of individuals viewing a webpage that includes positively posed photos, resembles their emotional structure after viewing an SNS.

The second paper, titled “Evaluation of Tourism E-Commerce User Satisfaction,” investigates the tourism E-commerce market of China. The investigation indicates that the number of Chinese tourists has gradually increased since the reform and opening up. In addition, tourism has gradually joined the platform of e-commerce, and e-commerce is also driving the development of tourism. According to statistics from the China Tourism Research Institute, the number of outbound tourists in the first half of 2019 was about 81.29 million, an increase of 14% year-on-year. Reports show that customer satisfaction with travel e-commerce is at a general level, and there is still much room for growth in the development of travel e-commerce.

The third paper, titled “An Empirical Examination of the Relationship Between Data Storytelling Competency and Business Performance: The Mediating Role of Decision-Making Quality,” develops and validates the concept of data storytelling competency as a multidimensional construct consisting of data quality, story quality, storytelling tool quality, storyteller skills, and storyteller domain knowledge. It also develops a mediation model to examine the relationship between data storytelling competency and business performance, and whether this relationship is mediated by decision-making quality. Based on an empirical analysis of data collected from business analytics practitioners, the results of this study reveal that the data storytelling competency is positively linked to business performance, which is partially mediated by decision-making quality. These results provide a theoretical basis for further investigation of possible antecedents and consequences of data storytelling competency. They also offer guidance for practitioners on how to leverage data storytelling capabilities in business analytics practices to improve decision-making and business performance.

The fourth paper, titled “Customer Involvement Facets Stimulating Customers’ Intention to Use Internet-Only Bank Services in China: The Extension of Perceived Risk-Value Model,” is the first to examine the roles of customer involvement in the perceived risk–value model used to predict customer’s

intention to use IOBSs. The results clearly indicate that understanding a customer's involvement is worthwhile in terms of predicting that customer's future intention to use an IOBS. The findings have clear implications regarding which facets of customer involvement service operators should address in their marketing systems to maximize the adoption intention of customers. Another finding is that in order to curb continuous service diffusion, service operators should not only increase customers' perceived value by enhancing the positive utility of IOBSs, but also not ignore the direct and indirect impacts of different facets of perceived risk.

The fifth paper, titled "Research on Risk Analysis and Countermeasures of Micro Store Operation Model," first introduces the management of micro-store operation models and summarizes the causes of micro-store operation model risks into 7 aspects, including government regulatory risks, seller or seller credit risk risks, and buyer interest risks, seller promotion risk issues, logistics supply chain risks, market vicious competition risks, micro-store operation model management risks. The management mechanism and the establishment of a scientific management system to prevent risks and other aspects put forward countermeasures and suggestions for the risks of the micro-store operation model.

The sixth paper, titled "Congestion Control for NDN-Based Manets: Recent Advances, Enabling Technologies, and Open Challenges," shows that the synergy between NDN and MANETs can be exploited in order to improve the performance of dynamic content routing and congestion control mechanisms. This overview identifies the key concepts involved in congestion control for NDN-based MANETs. It also proposes some criteria for categorizing existing congestion control solutions for NDN-based MANETs and discusses the advantages and disadvantages of each category. Future challenges regarding congestion control for NDN-based MANETs are also highlighted.

The seventh paper, titled "Adaptive Fault Tolerant Resource Allocation Scheme for Cloud Computing Environment," implements an efficient fault tolerant system to support cloud computing with high level of fault tolerance, in order to effectively utilize the cloud computing resources. This method classifies the resources based on the load factors into under, heavily and normally loaded and calculates the probability of resources failure, and then allocates the resources according to the need of the tasks. The suggested strategy is analyzed under two different scenarios, and the outcomes are compared with other recent benchmark strategies. The foremost contribution of the suggested method relies on reducing makespan and improving the throughput and the reliability of the cloud environment.

The eighth paper, titled "Efficient VM Selection Strategies in Cloud Datacenter Using Fuzzy Soft Set," recognizes that the inefficient usage of resources causes an enormous amount of power consumption in data centers. In this paper, a fuzzy soft set based Virtual Machine (FSS\_VM) consolidation algorithm is proposed to address this problem. The algorithm uses four thresholds to detect overloaded hosts and applies fuzzy soft set approach to select appropriate VM for migration. The experimental results show that proposed FSS\_VM algorithm achieves significant improvement in optimizing the objectives such as power consumption, Service Level Agreement violation rate, and VM migrations compared to all existing algorithms.

The ninth paper, titled "Understanding the Health Information Sharing Behavior of Social Media Users: An Empirical Study on WeChat," focuses on the social media platform 'WeChat' and its users' health information sharing behavior. This study investigated the TPB model's feasibility in social media health information sharing. The findings reveal that in the context of WeChat, subjective norms, attitude, and perceived behavioral control are predictors of health information sharing intention. The results also provide further support for the utility of the TPB with additional variables in predicting the mechanism of health information sharing behavior on social network sites.

The tenth paper, titled "Deep Neural Network and Time Series Approach for Finance System: Predicting the Movement of the Indian Stock Market," aims to predict the index prices for the centralized Indian National Stock Exchange (NSE). State-of-the-art machine learning algorithms like Support Vector Machine, Random Forest, Gradient Boosting, and Deep Neural Networks are implemented to predict the next-day trend. The training set is historical NSE closing price data from June 1st, 2013 to June 30th, 2020. Technical indicators like Moving Average (MA), Moving Average

Convergence-Divergence(MACD), K(%) oscillator and its corresponding three-day moving average D(%), Relative Strength Indicator(RSI) value, and the LW(R%) indicator are also factored in for the same period. The predictive power of Deep Neural Networks over other machine learning techniques is established in the paper demonstrating the future scope of deep learning in multi-parameter time series prediction.

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