

Guest Editorial Preface

Srikanta Patnaik, SOA University & Interscience Institute of Management & Technology, Bhubaneswar Odisha, India

Xilong Qu, School of Information Technology and Management, Hunan University of Finance and Economics, Changsha, Hunan, China

Tao Shen, School of Information Engineering and Automation, Kunming University of Science and Technology Xinzhi Bldg, Kunming, China

Bin Hu, China Mobile Communications Corporation, Xiangtan Branch, Xiangtan, Hunan, China

In the recent years, the emergence of new computing paradigms such as cloud computing and mobile computing with Big Data and Internet of Things (IoT) has become the centre of all research as well as application areas. Many new theories, methodologies and policies have been formulated to support not only industrial domain or health and personal domain but also to support the online execution of new business models. Some of the challenges that are being faced by traditional execution of business processes include flexibility in attaining consumer demands while maximizing profits along with reducing overall costs. Another challenge faced by the large-scale enterprises includes addressing the complex dynamic business execution environment along with satisfying the fluctuating demands of customers. Further, global collaborations must be made with other organizations providing similar services over the internet. In this digital era, to survive in the dynamic and competitive business environment, enterprises must be capable of sensing the contexts while making decisions regarding various economic, social and environmental issues.

In order to be aware of the contexts regarding various circumstances, intelligent systems must be incorporated into the online business execution process. These intelligent systems, capable of self-configuration and self-monitoring are the need of the time to manage fast growing number of processes in online execution of businesses. Integration of intelligent systems in traditional business processes promotes innovation and flexibility with efficiency and effectiveness. Further, new models, standards, methods and tools must be developed to integrate and support these intelligent systems for building IoT-aware business processes. Intelligent systems to be incorporated in business application execution are trained to understand the relation between data and processes. The digital era enterprises are aware of the potentiality of the massive data being generated by the enterprises' information system and to extract value from this massive data, events must be transformed into information that can be act upon by the intelligent systems. These intelligent agents supposed to be incorporated into online business execution system must be capable of learning and improving the process while minimizing response times and ensuring cost reduction. Some of the responsibilities these intelligent systems perform include ensuring right raw data has been recorded and relevant data can be extracted from it, identification of bottlenecks in the raw event-based data, extracting insights, predictions and recommendations from the relevant data and assist in making crucial decisions with the help of extracted context-aware values. Furthermore, incorporation of these intelligent systems into software based products to assist business process execution has significantly increased productivity by automating several processes. Some of the processes that can be automated in online businesses include generating reports about events, finding the reasons of event occurrence or diagnosis, predicting the expected outcomes of the events, recommending counter measures or products to consumers on the basis of past events and factors influencing the consumer behavior.

The purpose of this special issue is to investigate the current research trends addressing several challenges and aspects of online business execution from both academia and industry. This special issue covers six (6) articles encompass a wide range of works done in different domain pertaining to online business execution. The topics cover online purchasing of organic agriculture products, telecom carrier collusion, Equity incentive evaluation, quality evaluation of online reservation APP,

quality evaluation system for project management education, and last, the online offline blended learning system.

The first article in this issue, “The environmental awareness influence urban female’s purchasing Intention of Organic Agricultural products,” by Lai et al. studies, how in the booming online shopping era, Urban females’ intention of purchasing organic vegetables and fruits is influenced by their educational perceptions and attitude towards environmental awareness. They also have observed the advantages offered by the internet platform to online stores such as low operating costs and broad source of customers. Also, the online chain stores are targeting at urban women as their purchase behavior can be positively controlled. Lai et al. have used linear structural equation model and Back-propagation Neural Network both as the model to examine the findings. The authors claim that results confirm that attitudes and perceived behavior control (PBC) together are capable of predicting the purchase intention of the urban female. The sample they have considered mostly consists of urban females, who are white collared workers with high level of education and medium to high level of income; they also have past experience of purchasing organic agricultural products. Online shopping reduces shopping time and travel burden along with providing comparative prices of products from multiple vendors.

The second article in this issue, “The Influence of Product Quality Differentiation on Telecom Carriers’ Collusion,” by Li and Tang, study and analyze the influence of product quality differentiation using a game model on telecom carriers’ collusion. They analyze how critical discount factor imposes the increase in telecom carriers’ collusion with the decrease in product quality differentiation. It is hard for the telecom carriers to adhere to long-term collusions when product quality differentiation is small. Moreover, betrayal of the collusion bears high risk of losing a higher number of users from the network. The authors claim that the findings project that telecom carriers which produce low-quality products will keep sticking to the collusion as compared to the ones producing higher quality products. They have concluded with their observation about China’s telecom industry where three telecom carriers provide large product quality differentiation of mobile communication as well as internet services.

Then the next article, “Valuation Method of Equity Incentives of Listed Companies Based on Black-Scholes Model,” by Liu and Chen, studies the valuation methods existing in literature for the valuation of equity incentives for certain listed companies. The authors have applied the classic Black-Scholes model and further adopts GARCH model to estimate volatility of the stock price and improve the accuracy of equity incentive valuation. According to the observation of the authors’ the turnover rate has great influence on the equity incentive evaluation, thus considering this the errors can be reduced. They have considered the case study of Infinova’s equity incentive valuation for validation of the approach and the findings claim that higher turnover rate results in lower price of stocks.

The fourth article in this issue, “Research on Quality Evaluation of Online Reservation Hotel APP Based on RBF Neural Network and Support Vector Machine,” by Xiang, attempts to evaluate the quality of online hotel reservation app using RBF neural network and SVM. The author has designed an evaluation index system for the online reservation hotel APP. The weight of every index is established on the basis of questionnaire answers and expert interviews. The simulation has been carried out over 25 APPs where SVM shows better evaluation performance.

The next article, “Construction of Educational quality Evaluation Index System Based on Project Management” by Dong et al. proposes an education quality evaluation index system for the project management subject. The authors first summarize the advantages and drawbacks of project management to showcase the need of the subject; then study the drawbacks of the traditional approaches and the factors influencing the project management education quality. Next, they establish the quality evaluation system by considering several objectives and indices. Finally, they look forward to improvisation of the project management education quality evaluation system.

The last article in this issue, “An Empirical Study on Blended Learning in higher education in “Internet+” Era,” by Zhao, explores blended learning model that integrates both online and offline

learning and studies the negative factors influencing learning. Next, Zhao has conducted interviews and questionnaire surveys with teachers and students of around 10 colleges and universities in the province of Anhui. The author has presented the hypothesis statement that usefulness, ease of use, interactive behavior and a learning atmosphere are the factors that significantly affects student's acceptance of blended learning. Zhao further constructed a learning model, the blended learning based on Rain classroom and claims of achieving remarkable results by improving the learning efficiency and quality of students in a large classroom.

I am sure the reader shall gain immense knowledge from these papers.

Srikanta Patnaik

Xilong Qu

Tao Shen

Bin Hu

Guest Editors

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