

## 編者的話

本期學報（24 卷 1 期）共收錄了四篇論文，各篇的主題簡述如下：

楊亨利、林青峰之「微網誌短句的情感指數分析—以新浪微博為例」：隨著個人網誌與社群網路的發展，從個人社群網誌去分析發言資料、互動記錄、交友狀況等最後找出可用的規則，已成為熱門的分析應用。該研究經由分析作者在微網誌發表的狀態文句，希望除了能找出作者的正 / 負面意見傾向外，更進一步能瞭解作者撰文時可能蘊含的情緒。該研究提出一個新的方法，以大陸的新浪微博為例，首先利用演化策略的方法，該研究可以建立對微網誌作者正向情緒分類器與負向情緒分類器。若有需要，正負向亦可區分為非常正 / 非常負向、正 / 負向兩類別。實驗結果顯示，該研究分類的效果在精準率、召回率、F1 分數均達令人滿意水準。其次，該研究開發了能找出作者的情感指數推估系統；該系統利用迴歸方法可經由分析作者在其微網誌上輸入的狀態文句，推估作者想表達的心情，給予一個幸福指數；其他的情感（如：喜樂、憤怒、悲傷、厭惡、恐懼）指數也能類似地建立。

陳岳陽、孫思源、陳麗瓶之「網際網路再購意向之影響因素：動機匯集及知覺公平的觀點」：隨著網路風潮帶動電子商務的盛行，以標榜客戶為導向的購物網站已成為重要的消費通路，除了吸引網路消費者在虛擬空間中完成交易行為外，提昇網站客戶的滿意度及再購意向已是企業管理者首要目標。該研究運用自我調節機制中的「動機匯集」及公平理論中的「公平知覺」的觀點，期望能建構出合理的理論模式，以有效預測網路消費者的再購意向。經過相關文獻探討後，該研究提出七個研究構念，包含「知覺績效」、「分配公平」、「程序公平」、「互動公平」、「滿意度」、「網際網路購物自我效能」與「網際網路再購意向」。並抽樣有網購經驗的 316 位消費者為研究對象，研究結果顯示知覺績效對分配公平、知覺績效對程序公平、知覺績效對互動公平、知覺績效對滿意度、知覺公平三構面對滿意度、滿意度對網路再購意向、網際網路自我效能對知覺績效、網際網路自我效能對網際網路再購意向皆有正向而且顯著的影響。

魏巧宜、馬麗菁之「利用混合模式預測國內股票型基金績效及多年期軌跡」：隨著經濟發展，大眾對於投資理財的需求與日俱增，如何協助不同投資時間長短偏好的投資者，找出較佳短、中及長期績效的基金，是一項受關注的議題。該研究以自組織映射圖結合倒傳遞類神經網路及基因演算法，協助不同投資時間長短偏好的投資者，找出較佳短期、中期、長期績效的基金。此外，過去的研究大多

是分析單一期間的基金績效，該研究進一步以自組織映射圖結合案例式推理法及基因演算法，進行多年期群集軌跡預測。研究結果顯示無論短、中及長期績效預測結果，皆是以該研究所提出的混合模式預測結果最好。在多年期軌跡的預測分析方面，該研究提出的多年期群集預測方法，在風險趨勢預測效果上，亦優於單一期間預測分析結果。

張昭憲、莊秉諺之「以行為狀態變遷為基礎之線上拍賣詐騙偵測方法」：近年來，線上拍賣的蓬勃發展有目共睹。線上拍賣交易兼具便利性與隱蔽性，且不受時間與空間的限制，使得交易量逐年顯著提升。然而，面對如此蓬勃的交易平台，許多詐騙者開始混雜其中，謀取不法利益。詐騙的方式不但多樣化，且經常隨著時間、環境改變，令人防不勝防。為了協助交易者早期發現詐騙陷阱，避免蒙受不必要的損失，該研究以行為狀態分析為基礎，發展了一套線上拍賣詐騙偵測與預警方法。首先，針對詐騙者及正常者的交易記錄進行時序切割，再對其特徵值向量進行分群，以歸納出典型的交易者狀態。而後，針對資料集中所有的交易歷史進行狀態變遷切割，以產生與時序行為相關的偵測模型。在此同時，該研究也利用狀態切割後的資料集，製作狀態標籤字串，並產生循序樣式，供使用者比對、監控可疑帳號。根據上述方法，該研究實作了一套簡易的線上拍賣交易輔助系統，輔助使用者在交易前觀察、分析交易對象的行為。為了驗證提出方法之有效性，該研究使用拍賣網站實際交易資料進行實驗，結果顯示該研究提出之方法確實有助於提升詐騙偵測之準確性與預警能力。

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2017年1月

# Editor's Introduction

In this issue of *Journal of Information Management*, we are delighted to present four research papers. The summaries of these papers are as follows.

Heng-Li Yang and Qing-Feng Lin in their paper "Estimating Emotion Index of Short Sentences in a Microblog Website-Taking Weibo.com as an Example" propose a new approach to discover possible emotion. Their study aims to propose an approach for mining positive/negative opinions and estimating an emotion index of sentences in microblog website. After reviewing the related literatures, they proposed an ontology-based approach by using ConceptNet and evolution strategic for mining positive/negative opinions from short sentences posted in a microblog, Weibo.com. Applying regression analysis, they also built a prototype system to estimate its implied emotion. Using the experiment data, they can build a positive classifier to provide positive sentiment cluster and negative classifier to provide negative sentiment cluster with five or three scales. The levels of precision and recall rates, and F1 scores for those classifiers are satisfactory. In addition, their system can give an index of happiness. The future study can collect more sentences for testing and try other micro-blog or regular blog sites. The efficiency can be also further enhanced. Practically, businesses can apply their proposed approach to understand the emotion of the customers after purchasing their products/services. Social workers or police departments might identify persons with suicidal potentials at the early stage from the web.

Yue-Yang Chen, Szu-Yuan Sun and Li-Pin Chen in their paper "Factors Influencing Internet Shopping Repurchase Intention: The Perspectives of Motivation Hub and Perceived Justice" argue that nowadays, numerous of studies have explored the factors that influencing repurchase intention in the context of online shopping. However, little research has been conducted by applying the factors of Internet shopping self-efficacy and self-regulation mechanism. Accordingly, their present study tried to integrate these factors for testing the beliefs or attitude toward repurchase intention from the Internet shopping. Drawing on the perspectives of motivation hub and perceived justice, the present study aimed at examining the relationships among related factors with Internet

shopping repurchase intention. The respondents of the present study were consumers who had shopping experiences from Internet. For the sake of research rigor, convenience sampling and snowball sampling were used to distribute the questionnaires. The data from the online and paper questionnaires were combined to obtain diverse sample sources. Structural Equation Modeling with LISREL software was used to examine the research model. A two-step approach was applied to data analysis. The first step involved the analysis of the measurement model, which demonstrated a sufficient level of validity and reliability. The second step was the structural model testing. The results showed that perceived performance has positive influences on distributive justice, procedural justice, and interpersonal justice; perceived performance also has positive influences on satisfaction; perceived distributive justice, procedural justice, and interpersonal justice have positive impacts on satisfaction; satisfaction has impact on Internet shopping repurchase intention; Internet shopping self-efficacy has positive impact on perceived performance and repurchase Intention. It is recommended that other related theories or longitudinal research may be applied to the context of Internet repurchase intention to discover more significant implications. Thus, further works may integrate these critical factors and methods into research to examine their effects toward Internet repurchase intention. It is critical for online vendors to well-manage their EC website to serve customers and provide adequate value to customers instead of focusing on just one of aspects in their website development. Online vendors also should pay attention to the justice awareness for each consumer, and improve customers' performance in online shopping activities.

Chiao-Yi Wei and Li-Ching Ma in their paper "Using Hybrid Models to Predict Domestic Equity Fund Performance and Multi-Year Trajectory" propose an approach to analyze the relationships between fund attributes and performance for different investment horizon. Rather than analyzing single-period performance only, their study incorporates several methods in business intelligence to conduct multi-year trajectory analysis. As economic growth continues, the needs for investments are increasing. How to assist investors with various preferences in finding out mutual funds with better performance is an important issue. The study aims to propose a framework to analyze the relationships between fund attributes and performance for different investment horizon and to predict multi-year trajectory. The study combines self-organizing map, genetic

algorithms and back-propagation neural network to analyze the relationships between fund attributes and performance for short, middle and long time horizon. Moreover, the study incorporates the concept of self-organizing map, case-based reasoning and genetic algorithms to conduct multi-year trajectory analysis. The results show that the proposed hybrid approach yields the best prediction performance for all investment horizons. In addition, the proposed multi-year trajectory analysis is better than single-period analysis in predicting risk trends. Because data period adopted in the empirical study is only five years, long-term stability of the proposed framework has not been verified. The paper provides several implications for investors, fund managers and researchers. Investors can get more knowledge about the relationships between fund attributes and performance for different investment horizon. Fund managers and researchers can pay more attention to multi-year trajectory analysis.

Jau-Shien Chang and Bing-Yan Jhuang in their paper “An Online Auction Early Fraud Detection Method Based on Behavioral Status Transition of Traders” aim to apply state transition concept to detect latent fraudsters, which extends intuitive decision tree and other learning models to more complicated time-based analysis. Thus, based on the proposed novel approaches, new methods can be developed to discover more well-camouflaged fraudsters. The fraudsters’ strategies of online auctions are diverse and changing rapidly. It results in the difficulty of fraud detection and prevention. The purpose of the paper is to develop effective methods to help discovering online auction fraud as early as possible. The paper develops effective detection methods based on behavioral state transition of fraudsters. First, they partition and duplicate the transaction histories of traders according to trading events. Then, a reduction method based on state transition is developed to reduce the size of data set, which is then used to build the detection model. In addition, the state label strings are used to conduct the behavioral patterns of suspects for monitoring. To demonstrate the effectiveness of the proposed methods, real transaction data are gathered from online auction sites for experiments. The results show that their methods do increase the detection accuracy and demonstrate that the early fraud detection by behavioral monitoring is possible. The limitation of the work is that the proposed method could be ineffective for the fraudsters who steal or buy other normal accounts for disguise. Albeit being difficult, it is still possible to discover them by monitoring their behavioral changes in some critical time point. Certainly, it

needs newly-developed detection methods. If the developed methods can be implemented and incorporated into the routine tasks of real online auction sites, the efforts of monitoring abnormal traders can be greatly reduced and the cost of maintaining a smooth trading environment can drop significantly. As a result, the fraud events will be effectively suppressing and the users will have more confidence in trading with online auctions.

Finally, on behalf of the editorial team, I would like to thank all the authors and reviewers for their collaborative efforts to make this issue possible. It is our sincere wish that this journal become a bilingual knowledge exchange platform among information systems researchers around the world.

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January 2017