編者的話

本期學報（23 卷 1 期）共收錄了四篇論文，各篇的主題簡述如下：

陳志誠、劉用貴之「建構雲端環境資料安全存取模型暨績效評估」：由於在雲端環境中越權存取的威脅日益嚴重，使網路服務的風險與日遽增，雲端服務提供者本身是否具有足夠能力確保客戶的資料安全、防範非授權使用者對資料的存取或破壞，已成為雲端使用者最關切的議題。為確保雲端用戶資料的機密性和完整性，在提升大量資料存取效率的同時，強化用戶資料傳輸和儲存的安全是極其重要的，該研究提出了一個新的作法，能夠使分散式資料庫存取更安全、更有效率的主動驗證與排程方法，內容包括「主動式身分驗證」、「安全隔離與資料交換」、「優先權多級排程控制」、「分散式存取方法」及「RC4 加解密技術」等。用戶作業必須透過私有雲主動驗證才能取得授權碼，其資料必須經過加密處理之後，再進入獨立通道透過安全隔離與資料交換，才能進入私有雲取得存取權限進行交易。為提升交易效率，該研究建議結合優先權多級安全排程，進行分散式資料安全存取。經由實驗顯示，利他鎖定（Altruistic Locking, AL）排程原則能使分散式資料庫存取更有效率。經由檢視表將優先權及多級安全相互結合模擬，達到資料安全存取的目的。研究結果顯示，要做好存取控制，必先做好「讀」的控管，即可解決大部分不當存取的威脅，該研究並發現，做好「寫」的排程序列化，即可有效避免死結發生。研究顯示此一雲端資料安全存取架構能有效的遏止越權存取，也可提高交易並行性，增進資料存取效能性，實驗結果顯示，私有雲以優先權多級安全及分散式資料庫存取方式，AL 能更快更有效的完成交易，能盡快的將費時較短的交易完成（Commit），減少交易重新執行（Rollback），避免死結發生。經由兩組實驗比較，驗證私有雲分散式資料庫中「優先權多級安全及鎖定」AL 優於傳統的二階段鎖定（2-Phase Locking, 2PL），以 AL 作為排程的機制確實能獲得更佳的效能，說明了該研究架構之可用性。

楊亨利、孫曉雅之「影響社群網站自我揭露的社會需求因素」：該研究以個人需求理論出發希望了解在社群網站形成的人際關係網絡中，對朋友的自我揭露如何受到個人自我呈現需求和人際關係需求影響；以及進一步，是否會因人格特質而有差異。該研究對使用 Facebook 者，以問卷調查法進行，有效問卷 513 份，以 PLS 進行資料分析。結果顯示，個人自我呈現、主動包容和情感期待需求對普通朋友及親密朋友的自我揭露有正向影響，情感表達需求對普通朋友的自我揭露有正向影響；被動歸屬需求對普通朋友及親密朋友的自我揭露有負向影響。最後，

高低外向與自戀人格特質亦會對使用者自我揭露產生不同的影響。

陳岳陽、曾怡靜之「影響網路強迫性購買傾向之因素研究」：由於網際網路購物的便利性與立即性，許多創新商品與服務被引入消費市場中以吸引消費者的青睞，使得不少人在追求物質的慾望上被激發而出現難以得到滿足感的現象。此種追求即刻滿足而無法控制的強迫性購買之現象，已日益普遍。目前，大多數研究著重於探究實體商店上之衝動性購買與網路衝動性購買，鮮少有相關研究針對網路強迫性購買之議題進行探入之探討。另一方面，在探究消費者購物行為時，不應只從正面探討，亦應將負面行為也納入探討，才不致以偏蓋全。故該研究從消費者負面之行為引入網路購物的情境當中，探討影響網路強迫性購買傾向的因素。該研究引用神迷理論、流行傾向性及相關之動機因素，針對 435 份回收樣本篩選出 132 位高網路強迫性購買傾向的網購消費者，實證相關因素與網路強迫性購買傾向間之關係。該研究結果發現，神迷相關因素中，專注、時間扭曲、探索行為及有趣性會強化網路強迫性購買傾向；在流行傾向性中，流行領導與流行興趣會影響網路強迫性購買傾向；動機因素方面，社會互動趨避及同儕影響亦會強化網路強迫性購買傾向。

陳良駒、范俊平、謝佳容之「網路作戰安全與管理主題實證探索之研究－使用 GHSOM 技術」：網際空間係由相互依存的資訊技術與網路基礎建設所構成的複雜環境，西方國家紛紛推出網際空間戰略，以加強對網際網路的控制與主導，制網路權也是我方近年不斷推動國防現代化與軍事事務革新的重要目標。面對中國「網軍」強大的威脅，該研究目的希望「以敵為師」了解對岸在網際空間作戰的攻防技術與支援規劃。研究中蒐整共計 1358 篇中國網路作戰相關文獻，據以建構「網路作戰安全與管理」概念詞彙，透過增長階層式自組織映射圖（growing hierarchical self-organizing map; GHSOM）的分群技術來建構詞彙的主題類別與層級關係，再進行成果歸納及實證分析。研究成果不僅了解中國大陸在網路作戰安全與管理議題上的重要發展及趨勢，也提供各國政府在網路空間戰略策進之參考。

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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.

Patrick S. Chen and Yong-Kuei Liu in their paper "Construction and Efficiency Evaluation of a Secure Data Access Model in the Cloud Computing Environment" propose a new approach to system security, permitting distributed database access and efficient scheduling. The system allows active identity verification, secure data isolation and information exchange, multi-level scheduling based on priorities, distributed access control and use of encryption technology. Due to the growing intelligent attacks, internet service providers are facing more and more risks. It has become a big concern, especially in the emerging cloud computing environment, whether the service providers have the capability to properly protect users' data from attacks and prevent unauthorized access. In order to meet the information security requirements of confidentiality, integrity and availability with consideration of access efficiency in the presence of huge amount of data, they proposed an efficient and secure data access model covering active authentication, encryption/decryption, and access to databases. Through experiments, they found that the control of secure data access model covering active authentication, the serialization of control of secure data access. They designed a multi-layered, distributed database system and proposed a secure access model in which two locking mechanisms, two-phase locking and altruistic locking, are compared. A prototype was implemented to test the applicability of the proposed model. The system first authenticates a user and then assigns him/her a ticket. This process accomplishes fined-grained access control. After analyzing the data obtained from the experiments, they found that the proposed data access model is well suited for the cloud computing environment in terms of security and efficiency.

Heng-Li Yang and Hsiao-Ya Sun in their paper "The Determining Social Needs of Self-disclosure on Social Network Sites" investigate why people would self-disclose at the social network sites. Their study tried to understand the influence of self-presentation need, interpersonal need on self-disclosure to ordinary friends and intimate friends at the

social network sites. Sample survey was applied to investigate Facebook users. The PLS was applied to data. The results reveal that “self-presentation”, “expressed inclusion”, and “wanted affection” needs have positive impacts on self-disclosure to both ordinary friends and intimate friends. “Expressed affection” needs have positive impacts on self-disclosure to ordinary friends. In addition, “wanted inclusion” has negative influence on either ordinary friends or intimate friends. Furthermore, there are some different findings among high/low extroverted groups and high/low narcissistic groups. Website operators can refer to the findings to design more attractive functions.

Yue-Yang Chen and Yi-Jing Tseng in their paper “Examining the Factors Influencing Internet Compulsive Buying Tendency” argue that, many studies to date have explored the issue of compulsive buying in the context of physical stores. However, little research has been examined compulsive buying factors in the context of the Internet shopping. In the consideration of the “bright side” for consumer behavior, understanding of the“dark side” as well as applying it to the context of the Internet shopping are also important for marketer and researchers. Drawing on flow theory, fashion orientation, and motivation factors, this study tried to examine the relationships among related factors with Internet compulsive buying tendency. The subjects of their study were consumers who had shopping experiences online. For the sake of research rigor, both convenience sampling and snowball sampling were used to distribute the questionnaire. The data from the online and paper questionnaires were combined to obtain diverse sample sources. LISREL Structural Equation Modeling was used to assess 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. Findings showed that concentration, time distortion, exploratory behavior, playfulness, fashion leadership, interesting in fashion, avoiding social interaction, and peer networks have direct effects on Internet compulsive buying tendency. It is recommended that other antecedents may be incorporated to determine their influences on dependent variables. Thus, further works may integrate these critical factors into research to examine their effects toward Internet compulsive buying tendency. For marketers, it is imperative to understand how to exploit the consumer's shopping psychology and to understand purchase trends. Retailers may pay

more intentions to related factors in evaluating consumers' value of online compulsive shopping, and these factors also make it easier to predict consumer tendencies toward Internet shopping.

Liang-Chu Chen, Chiun-Ping Fan and Chia-Jung Hsieh in their paper "The Study on Exploring the Topics of Cyber Warfare Security and Management: Using Growing Hierarchical Self-Organizing Map" illustrates a novel application for the military and demonstrates the way to apply the proposed framework to building an objective analysis. The study describes the individual layer of the hierarchy, and identifies means to improving the effectiveness of collective knowledge via practice perspectives. It helps the readers form an understanding on the cyber warfare attacking and defending techniques, as well as the supporting plans. In resistance to the enormous threats from the "Cyber Force" over the Internet, this research aims to examine both attacking and defending techniques as well as the supporting plans from the People's Republic of China (PRC). The study employs the growing hierarchical self-organizing map (GHSOM) to construct the topic categories and hierarchy of vocabularies as a reference for enhancing the cyberspace war-fighting strategy. The framework of the study can be divided into 3 phases, "Data Collection," "Terminology Process," and "Cluster Analysis." In the research, based on 1,358 PRC's articles focusing on the cyber warfare from 2000 to 2010, a set of terminologies regarding "cyber warfare security and management" was constructed. The topic categories and hierarchy of vocabularies were constructed by using the clustering technique of the GHSOM. The results were then concluded and verified. The results point out 16 important categories of the cyber warfare, such as "Network Attack Techniques," "Intrusion Detection Security Management," "Network Defense Strategy and Technology," and "Cyber Warfare Strategy and Benefits," etc. The fundamental contributions of the paper can be considered at three different levels: (1) providing a better knowledge representation strategy for the current military observers; (2) discussing progress on the implementation of 5 integrative viewpoints of cyber warfare; and (3) providing 6 cyberspace war-fighting strategies. The results provide an understanding on the subject matter regarding the important development and trend of the cyber warfare security and management, as well as a reference for enhancing the cyberspace war-fighting policies.

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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