編者的話

本期學報（22 卷 4 期）共收錄了四篇論文，各篇的主題簡述如下：

李峻德之「影響核心玩家與休閒玩家認知線上角色扮演遊戲可玩性之因素探討」：自 1980 年起，線上遊戲可說是整個數位娛樂產業中發展最為快速的領域，其中的角色扮演遊戲（Role-Playing Game/RPG）市場，受到多數核心型玩家喜愛。面對激烈競爭，遊戲設計者的挑戰，是如何去創造兼顧基本易用性，與具高度樂趣的遊戲環境；換言之，協助玩家產生遊戲經驗（Gameplay experience），為設計的關鍵。然而，此議題在過往人機互動設計相關研究中，並未有太多著墨。延伸自傳統的易用性觀念，該研究旨在調查角色扮演遊戲中，影響核心型玩家與休閒型玩家，可玩性（Playability）遊戲經驗的設計因素面向。

洪新原、黃于紋、賴慧敏之「以彙總分析法探討影響知識分享之關鍵因素」：過去研究在探討「為何人們願意分享知識到知識管理系統」的研究問題上，出現許多不一致的結果，莫衷一是，因此對於影響人們為何分享知識的相關研究結果加以彙總分析（Meta-Analysis）是必要的。該研究以彙總分析法，以科技部最新公佈的前 30 名期刊、知名的 5 個國際研討會（AMCIS, ECIS, PACIS, ICIS, HICSS）及 2 本廣泛討論知識分享的期刊，選出在 2002-2012 年間已發表影響個人知識分享主題的實證研究，以研究場景為虛擬社群或組織知識庫做為區分，共 83 篇研究進行分析，研究發現：(1)對於虛擬社群成員而言，影響「知識分享頻率」的關鍵因素為知識自我效能、結構社會資本、認同、關係社會資本、社會互動連結、利他主義、聲譽和承諾；影響「知識分享品質」的關鍵因素為信任、共同的語言、認同、社會互動連結和利他主義；影響「知識分享態度」的關鍵因素為利他主義、互惠和信任；影響「知識分享意圖」的關鍵因素為聲譽、知識分享態度、知識自我效能和知識分享主觀規範。(2)對於組織員工而言，影響「知識分享頻率」的關鍵因素為承諾和信任；影響「知識分享態度」的關鍵因素為互惠、資訊科技促進分享的信念和外在報酬，且外在報酬為負向的影響；影響「知識分享意圖」的關鍵因素為知識分享主觀規範和知識分享態度。研究成果可供組織管理者或社群管理者之參考指標，以及後續實證研究的參考。

陳滄堯、戚玉樑之「以遞迴結構為基礎發展可追溯的供應商關係網絡知識系統」：該研究發展一個以知識本體為基礎的知識系統，用於解決「供應商關係網絡」的追溯問題。由於現代企業面臨時效、成本、創新等經營壓力，商業環境已朝向專業分工及團隊結盟，以成為具有競爭力的供應商網絡。然而，受限於管理

工具及資訊不對稱問題，大多數企業不易掌握第一層以外的供應商資訊，使得企業對突發狀況的應變能力不足，許多的證據顯示：因上游缺料而導致生產停滯，已造成企業經營的損失，因此亟須改善這類連鎖效應導致的問題。該研究提出一個以知識分類及正規語意建構的「供應商關係網絡」模型，藉由建立遞迴機制提供企業具有「追溯」供應商關係的能力。該研究主要設計方法包括：(1)將構成供應商關係的概念、屬性，利用知識本體（ontology）建置為知識模型；(2)將追溯上游供應商的步驟，利用語意規則發展推理程序，協助推論隱含性知識。該研究以太陽能產業 24 家相關企業資料進行實驗，由結果顯示：知識模型定義問題解決的內涵及關係，因此可串聯已知事實，推論供應商的關係網絡，包括追溯上游各層的供應商、潛在供應商、及獲取供應商的附帶資訊。簡言之，該研究的設計提供易於實踐的知識系統，可做為解決供應商關係延伸問題的基礎。

　　蕭瑞祥、曹金豐、張卉欣之「校園雲端服務管理系統整合介面之研究」：現階段雲端虛擬化工具較偏重於資源與設備管理，對於校園電腦教室教學應用聯結與整合性較弱，該研究先以訪談分析電腦教室虛擬化管理的功能與介面需求，並採用「空間位置圖形」建置校園雲端服務管理雛型系統與整合介面，並透過訪談評估使用性，探討此雛型系統與空間位置整合介面之可行性。研究結果顯示，校園雲端服務管理系統需具備「狀態燈號顯示」及簡化「基本操作功能」，「空間位置圖形」應用於此系統對於系統管理者是有正向幫助。再則，受訪者皆表示該整合介面具「效率性」，八成認同該整合介面之「介面配置」及「學習度」，九成贊同該整合介面之「整體滿意度」。期望該研究能作為後續實務發展校園雲端服務管理系統之參考依據。

總編輯

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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.

Jiunde Lee in his paper "The Factors Affecting Perceived Playability of Hardcore and Casual Players in Online Role-Playing Games" provides a useful design reference for game developers. What players consider to be a good game largely relies more on the hedonistic level than on the ergonomic level. In other words, usability design in online role-playing game environments comes second to the emotional elements. A new design concept, playability, has emerged and been advocated as a decisive factor for players' gameplay experiences. The study intends to identify what playability factors might affect players' gaming experiences, particularly from the perspective of individual motivation. According to the game heuristics and playability design guidelines, the study developed and managed a wide-scale survey to investigate the determinants of playability, reflecting hardcore and casual players' RPG gaming experiences. The survey results revealed that the Gameplay dimension is primary decisive factor leading players to value the playability of an online role-playing game, following by Game Interface, and then Game Mechanics. From the hardcore players' point of view, Gameplay is definitely more important than Game Interface, while Game Interface is equally important to Game Mechanics. From the casual players' point of view, Gameplay is positioned at the same critical level as Game Interface while Game Interface has a stronger impact than Game Mechanics. The results of the study can merely provide information of which design factors of playability might be deemed important by players from the perspective of individual motivation. In addition, although the emotion issue is highly related to the psychological dimension of the player's gaming experience, it wasn't included in the investigation due to the limitation of the survey method, and the match between issues of emotion and playability has yet to be specified.

Shin-Yuan Hung, Yu-Wen Huang and Hui-Min Lai in their paper "A Meta-Analysis of Critical Factors for Knowledge Sharing" argue that during the past decade, previous studies found inconsistent results. Thus, a meta-analysis was used to find the key factors that affect knowledge-sharing behavior and to provide researchers with a studying map

for better deeper understanding of the current findings in knowledge sharing. Inconsistent results exist inprevious studies regarding why people share their knowledge. Thus, a meta-analysis is required to analyze relevant studies. The study analyzed 83 empirical studies selected from the top 30 journals in information management, five well-known international conferences (namely, AMCIS, ECIS, PACIS, ICIS, HICSS), and two journals in which knowledge sharing has been discussed extensively, during 2002-2012.The results indicate the following: (1) For virtual community members, eight factors affect the frequency of knowledge sharing: knowledge self-efficacy, structural social capital, identification, relational social capital, social interaction, altruism, reputation, and commitment. Five factors affect quality of knowledge sharing: trust, shared language, identification, social interaction, and altruism. Three factors affect knowledge-sharing attitude: altruism, reciprocity, and trust. Four factors affect knowledge-sharing intention: reputation, knowledge-sharing attitude, knowledge self-efficacy, and the subjective norm of knowledge sharing. (2) For employees, two key factors affect the frequency of knowledge sharing: commitment and trust. Three factors affect knowledge-sharing attitude: reciprocity, information technology, and extrinsic rewards. Two factors affect knowledge-sharing intention: subjective norm of knowledge sharing and knowledge-sharing attitude. In terms of academic contribution, independent variables resulted in conflicts and contradictions in knowledge-sharing behaviors over the past decade. After relevant articles were collected and read, the findings of individual research were analyzed to eliminate all sources of error and find a true relationship between different variables. The results of the study not only provide study maps of key factors that influence knowledge-sharing behaviors but also aid researchers in understanding the current findings in knowledge sharing. The study has several implications for practitioners: (1) Reputation enhances the knowledge-sharing intentions of community members; therefore, if the community provides an appropriate reputation mechanism (such as the ranking list of knowledge sharing, etc.), it will effectively promote members' knowledge-sharing intention. (2) Extrinsic rewards have a negative impact on the knowledge-sharing attitude; thus, the community must pay attention to the negative effects of unfairness or insufficient incentives while designing incentive measures.

Tsang-Yao Chen and Yu-Liang Chi in their paper "A Traceable Supplier

Relationship Network Knowledge-based System based on Recursive Structure" claim that two major original methodological contributions are present in the study. The first is the use of tree structure to process the recursive algorithm for the analysis of foundational concepts. The second one is the development of OWL-based KBS. The OWL data model was developed to represent class structure and does not natively support KBS development. The study aims to develop an ontological knowledge-based system to address the issue of supplier tracing in the supplier relationship networks. They develop an ontological knowledge-based system (KBS) based on tree recursive algorithm. The design includes two major components: (1) Using OWL-based approach to construct the concepts and attributes of supplier relationship into the knowledge framework; (2) Creating SWRL-based rules to define the inference processes in terms of the steps of tracing upstream suppliers. The created inference mechanisms then enable the reasoning of implicit knowledge from the known facts. The experimental results show that the knowledge model has defined the content and relations of the problem domain and it is capable of, through chaining finite facts, inferring through the supplier relationship network for tracing suppliers at all levels. The inference results include knowledge such as potential qualified suppliers and associated suppliers. To make the supplier relation network feasible for industry tracing, they have simplified the required information and excluded sensitive data when modeling. The logic of supplier network relationships is embedded in the design and the suppliers need only provide the known and public factual information to conduct the hierarchical relationship tracing. The production expansion problem implemented in the study can be used as a model to extend into a more comprehensive design.

Ruey-Shiang Shaw, Chin-Feng Tsao and Hui-Hain Chang in their paper "A Study of Interface Integrated Campus Cloud Service Management Systems" state that virtualization tools nowadays put emphasis on management of resources and equipment, they are weak to connect and integrate with the campus computer-classroom teaching application. The study implements virtualization applications, and develops a Campus Cloud Service Management System to evaluate the usability. The purpose of the research is to investigate and understand the management functions and interface requirements of classroom computer virtualization using social science research methods. Furthermore, the study applies the spatial location graphics to the system interface, and then evaluates

the usability through interviews to explore feasibility of the integration interface. The study reveals that "status lights" and "simplified basic operating functions" is necessary for Campus Cloud Service Management Systems. In addition, applying the spatial location graphics to the system for the system administrator is positively helpful. The research is restricted to campus environment only. Therefore, you must understand the environmental characteristics of fields before applying. In addition to above-mentioned, the study is based on Microsoft SCVMM virtualization solution. For this reason, more virtualization tools should be considered in the future. As the practical implications of the study, all respondents express the integration interface is "efficiency", and 80% of the respondents satisfy with the "interface configuration" and "learn ability", while 90% of the respondents approve of "overall satisfaction".

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 abilingual knowledge exchange platform among information systems researchers around the world.

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