

行政院國家科學委員會專題研究計畫 成果報告

結合互動影音與遊戲導向之教學環境-互動式影音遊戲教學 課程之設計與實施 研究成果報告(精簡版)

計畫類別：個別型
計畫編號：NSC 96-2520-S-216-001-
執行期間：96年08月01日至97年07月31日
執行單位：中華大學資訊管理學系

計畫主持人：張文智
共同主持人：張淑女
計畫參與人員：碩士班研究生-兼任助理人員：李宗璞
碩士班研究生-兼任助理人員：陳坤祺
碩士班研究生-兼任助理人員：李茂帆
碩士班研究生-兼任助理人員：徐志煌
碩士班研究生-兼任助理人員：邱彥達

報告附件：出席國際會議研究心得報告及發表論文

處理方式：本計畫涉及專利或其他智慧財產權，2年後可公開查詢

中華民國 97年09月25日

行政院國家科學委員會補助專題研究計畫 成果報告
 期中進度報告

結合互動影音與遊戲導向之教學環境

- 互動式影音遊戲教學課程之設計與實施

計畫類別： 個別型計畫 整合型計畫

計畫編號：NSC 96-2520-S-216-001-

執行期間：2008年08月01日至2008年07月31日

計畫主持人：張文智 中華大學資訊管理系助理教授

共同主持人：張淑女 真理大學通識教育學院助理教授

計畫參與人員：陳坤祺、徐志煌、李宗璞、李茂帆

成果報告類型(依經費核定清單規定繳交)： 精簡報告 完整報告

本成果報告包括以下應繳交之附件：

赴國外出差或研習心得報告一份

赴大陸地區出差或研習心得報告一份

出席國際學術會議心得報告及發表之論文各一份

國際合作研究計畫國外研究報告書一份

處理方式：除產學合作研究計畫、提升產業技術及人才培育研究計畫、
列管計畫及下列情形者外，得立即公開查詢

涉及專利或其他智慧財產權， 一年 二年後可公開查詢

執行單位：中華大學資訊管理系

中華民國 97 年 9 月 24 日

行政院國科會科學委員會專題研究計畫成果報告

結合互動影音與遊戲導向之教學環境-互動式影音遊戲教學課程之設計與實施

Developing a Prototype of Video Game-Based Learning Environment

計畫編號：96-2520-S-216-001-

執行期間：96年8月1日至97年7月31日

主持人：張文智 中華大學資訊管理系 earnest@chu.edu.tw

摘要

電子化學習在目前社會中越來越流行，電子化學習的形式與當前教育對象的特質，漸漸出現遊戲式教學的形式，為了能夠吸引學生學習動機與興趣，許多的動畫與 Flash 互動教材不斷發展，然而大多數這樣的多媒體開發工具與程式語言不容易讓教師編輯。本研究將開發一個以互動式影音為基礎之教材編輯系統。

Abstract

E-learning becomes more and more popular and fantasy in the teaching / learning. Thus far, more and more researches and discussions are proposed to make it possible to realize the game-based learning environments and styles. In order to attract learners in GBL, learning activity often has fantastic characteristics and glorious treasure. And most of them were based on 3D or Flash animation technologies. However, the learning materials of such game-based learning are hard to create by common users. In this paper, we took a further step to integrate interactive video technology with gaming to develop a Video Game-Based Learning (V-GBL) development prototype system.

Keywords: VGBL, authoring tool, interactive video, curriculum design

1. Introduction

Due to the rapid upgrade of hardware and software, games have more and more special functions or capacities to attract the players' attention. Some statistic data showed that, the total sales of games were around 320 million dollars in 1995, and continually increases to about 1,040 million dollars in 2003. This data reveals

an undoubted fact, and that is, games are more and more popular.

According to some outstanding related works, game play environment could benefit players in various aspects, such as graphic recognizing, space process and the ability for inference. However, the learning materials of such game-based learning and the game designing are difficult to create by common users. If we could integrate the game play model and the instructional course into one gaming course environment, it will be helpful for improving the learning competency certainly.

In the V-GBL prototype, we hope the V-GBL learning environment is able to achieve the following objectives. First, teacher could easily use the authoring tool to develop course materials. Second, these materials could base on interactive video-based content, and they also could be reusable and shareable. Third, learners could collaborate with other people to do their learning activity, and system could estimate the learner's learning status and give the learner feedback to them according to the teacher's assessment rules setting in gaming environment. At last, this V-GBL system could run on Multiple Gaming Platforms such like PC (personal computer), PPC (packet pc) and IPTV.

2. Related Work

Form the perspective of gaming behaviors, Prensky, M. (2001) illustrated why game elements could attractive to player as below.

- ◆ Game provides some degree for enjoyment.
- ◆ Game has playing mode corresponding with

game type (Ex: RPG (Role Play Game), SLG (Simulation Game)...etc).

- ◆ Game has an obvious and significant goal.
- ◆ Game has an interactive mode.
- ◆ Game provides the gaming feedback and the gaming result.
- ◆ Game designing could be suitable for player.
- ◆ Game has winning reward.
- ◆ Game has conflict, competition, challenge and opposition factors.
- ◆ Game has a plot with problem solving.
- ◆ Game has a character of narrative.

Merill, et al (1996) mentioned that game have four necessary properties as follows:

- ◆ Learners are not forced to play game.
- ◆ Learners could have fun in the gaming phase.
- ◆ Games have clear and definite goal and playing rules.
- ◆ Games have competition and challenge essential factors.

Prensky M. (2001) summarized the teaching method between current teaching mode and traditional teaching mode as follows:

- ◆ Twitch speed V.S. Conventional speed
- ◆ Parallel processing V.S. Linear processing
- ◆ Graphics first V.S. Text first
- ◆ Random access V.S. Step by step
- ◆ Connected V.S. Stand alone
- ◆ Active V.S. Passive
- ◆ Play V.S. Work
- ◆ Pay-off V.S. Patience
- ◆ Fantasy V.S. Reality
- ◆ Technology as friend V.S. Technology as foe

In addition, Bramucci (2002) stated the basic learning behavior and learning mode with game play environment. His works indicated that the game should provide the enjoyment to attract the player's attention.

Keri Facer (2006) claimed that a game could be a continuous activity or a simulation in real life. Games have some characters, for instance, the enjoyment and the independence. All of these characters were quite different from traditional instructional activities. For

this reason, to utilize the interaction provided in game will strengthen the learning motivation and problem solving ability of the learner.

Many scholars have the same standpoints that to utilize the computer game development mode will lead to better learning effect. Brownfield and Vik (1983) proposed that the game play could increase the learner's reading, listening, speaking and writing ability. Wood and Stewart (1987) proposed that game could increase the learner's logic thinking ability. Therefore, Ravenscroft's (2002) research has focused on that the elements in physics which could be used in the game play environment. According to this research, the authors found that to utilize the concept of the game play learning. Kennedy, R. S. et al. (1982) proposed that "Game play is a form of presentation in order to do the learning assessment", the learner has to solve the problems in the gaming mode in order to achieve an objective of the game.

Ang Chee Siang and Radha Krishna Rao (2003) proposed the concepts of game teaching mode, learning and mental philosophy, and game design techniques. In mental philosophy, they mentioned some learning theories, such as the behavioral learning theory, operant conditioning, cognitive learning theory and motivation theory. In the game design techniques, they explained and discussed some important elements which game designer have to take care, for example, the learner's learning condition in the realistic gaming environment, how to link up make the learner's thinking and learning status, and how to catch the learner's mood.

3. V-GBL Environment

V-GBL Environment Architecture

Figure 1 showed an overview of various learning platforms in V-GBL environment. In this V-GBL environment, it could provide the service to the various platforms (like the PC, PPC (Pocket PC) and IPTV) in client, and then the client could utilize various network technologies (like the 3G/WiMAX) to get connected with the V-GBL server. The V-GBL server will connect to the LMS and to get the gaming course according to the personal learning status, and then to

apply the gaming course to the client. Finally, the client could continue the next learning behavior.

As illustrated in Figure 2 and Figure 3, the development items from the server side focuses on the gaming environment control system, learner and game data control system, and network control system. The development items from the client side focus on the gaming environment presentation system, GUI system, and network control system.

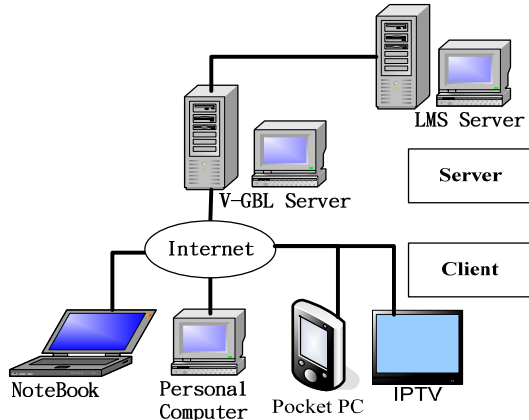


Figure 1. V-GBL environment

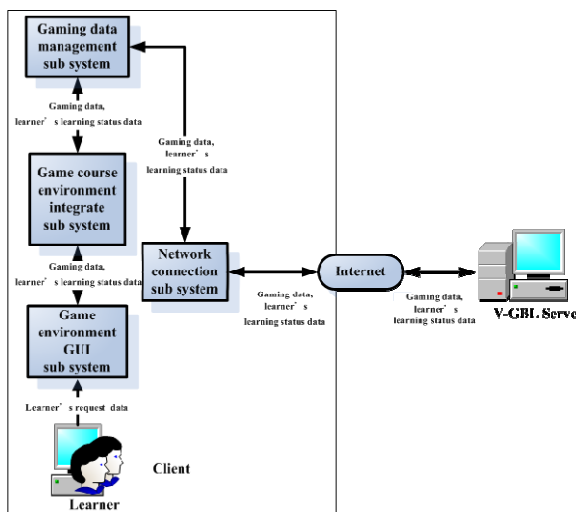


Figure 2. V-GBL system flow (Client)

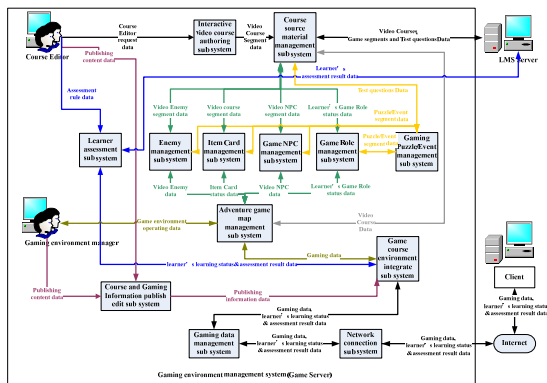


Figure 3. V-GBL system flow (Server)

V-GBL Game Content and Environment Design

Adventure Game is one of the popular game types. The game elements could attract learners' attention effectively. In this game environment, Learners could cooperate with other learners to adventure in this game environment by using interactive gaming video, and learner could look at this map to know there position. About the quantity of numbers, we limited the max numbers of cooperation learners in 4 people in order to distribute and to reduce the game server's loading. Learners must to solve some problems by interacting with interactive video scene in order to keep continued in this game. And we could insert some test questions into some main events in interactive video gaming environment, and learners could utilize three ways to answer these questions. One is using the drag & drop mode to put the right answer into the right place, the other is using the select mode to select the right answer, another is using the text input mode to answer the question. Learners have to solve NPC's problems in order to keep continued during playing this game. And we also could put questions into the particular item which the NPC want you to find out, and learners also could answer these questions in three ways that we mentioned above. The learner must kill enemies in gaming battle phase. We want to put the course questions into the battle phase, and learners could select the right answers in order to decrease the particular enemy's attributes. (Like the dodge rate, attack ability... etc) And after finishing this battle phase, learners could get rewards and experience which could increase the role's abilities.

In terms of creating the learning game environment, there are composed of five parts.

- ◆ Game Lobby
- ◆ Comic Room
- ◆ Adventure Room
- ◆ Card Store
- ◆ Learning Status Searching area

In the Game lobby, the learner could make discussing about the game course with other learners in

this area. In the Comic Room, learners could learn the prior knowledge and operating skill of the course section by way of comic-based interactive video course content in order to utilize them in adventure gaming phase. After finishing the prior knowledge learning phase from particular course section, learner could get the course section key. Then the learner could utilized this key to get into adventure room and to select the related gaming environment which about the course section in order to make effort in order to complete the particular game mission. In gaming phase, the learner must to interact with the NPC and to finish all game tasks of gaming missions during gaming phase. And the learner could utilize the hint cards which bought from the Card Store in order to increase his survival rate when the learner getting into the enemy battle phase. After finishing the battle phase, the learner could get the particular specific experience, gold and the reputation in order to increase learner's role abilities. After exiting the Adventure Room, learners could enter the item card store to buy additional hint cards in order to help the learner in next gaming phase. In the Learning Status Searching area, the system provides learner learning status and keyword search information function. Learners could get the related learning status which about gaming and learning status.

V-GBL Gaming Environment Implementation

In Figure 4 (a), we could get into the Game Lobby area, the learner could utilize message box to talk to other learners in this place. Than they could decide which game scene they want to play. In this Adventure learner list, the learner could see how many learners in this area and he could observe other learners' learning status or hint cards. In Figure 4 (b), when we click the status option, he could see the detail information about this role's ability. If we click the item option, he could see the card detail information which include card name and card description.

In Figure 5, the learner could select the particular course chapter and get start to do his learning activity.

The course material will base on comic-based interactive video content. After the learner finishing this learning phase, he could get into the adventure room in order to keep continue his learning activity. At the adventure gaming phase, the learner could create game missions or to join other missions which made by other learners. Then the learner will see the mission map icon and related mission description which learners should be get noticed in it. In gaming phase, there will show the game objective (Maybe to leave the map area or other conditions). The learner give trying on finding the treasure or some stage properties in order to complete all missions in this map area.

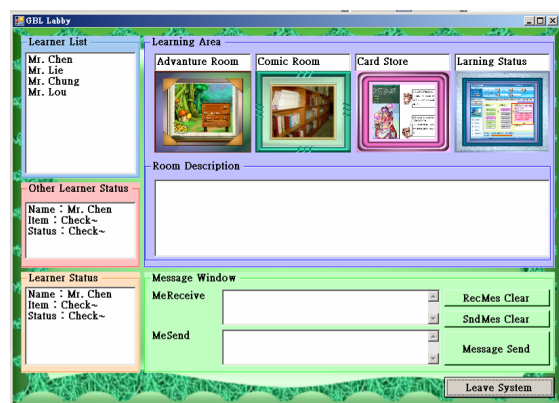


Figure 4(a). Game Lobby

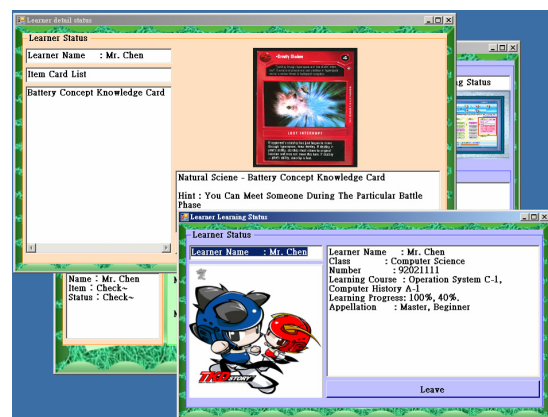


Figure 4(b). Hint Card and Role Information

When learners meet the mission point, learners will get into the particular. The mission will divide into two types, the first part is quiz solving; learners have to make decisions and right choices directly. Another part is quiz solving in mini game, learners must to solve the related quiz in order to complete the sub-mission in mini game. We offer three type of quiz. There are option, text input and drag & drop modes. In Figure 6, learners select the answer, there will show the video

based hint in order to remind the learner's previous knowledge which he learned. Of course, when they see the hint video, the option will be changed due to the particular playing time point, we hope we could utilize this way to generate the adaptive gaming quiz and to let learners pay attention to these quizzes. When learners finish these quizzes, they could get some key items in order to continue this game. The learner will get rewards (like the money, experience etcetera...) after completing the particular quiz and mission.

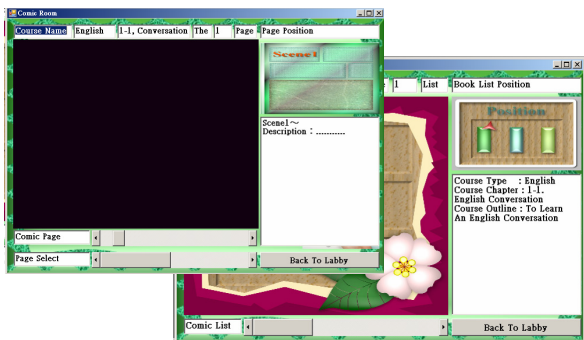


Figure 5. Prerequisite knowledge area

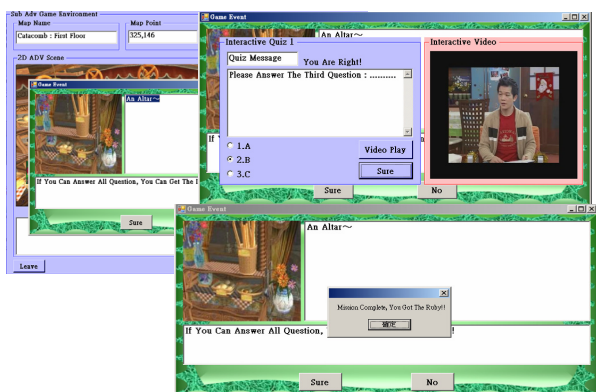


Figure 6. Mine Game with quiz

Learners could get into the card store (see Figure 7(a)) and to buy some particular cards in order to help them to touch off the particular sub mission and to pass them. At last, the learner could get into the learning Status list form (see Figure 7(b)) and to see learners' learning results by keyword search or to buy some hint card in order to help learner to solve the game course mission.

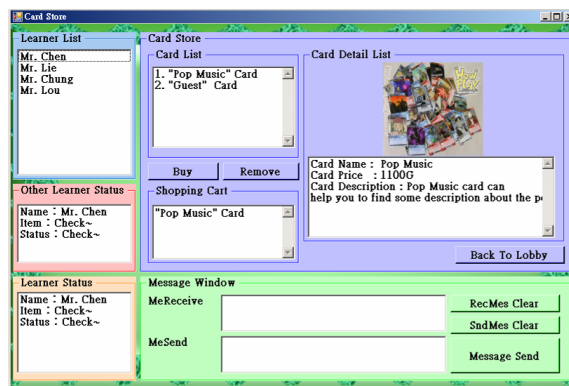


Figure 7(a). Card Store

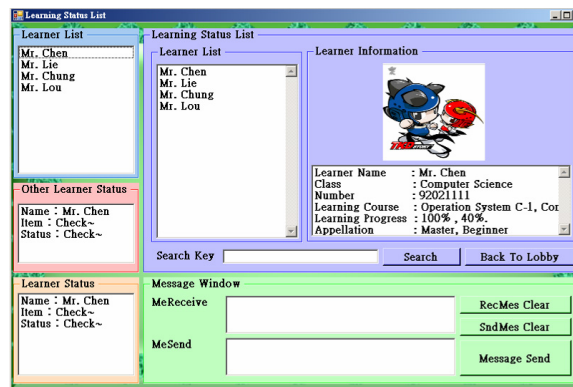


Figure 7(b). Learning Status

4. Conclusion

In this paper, we contribute an interactive Video-Game-Based Learning environment which realizes the gaming course content, gaming design mode and development technology nowadays. The V-GBL gaming course prototype and the related development toolkits facilitate the V-GBL environment. Course designer could easily utilize the template development mode of this V-GBL development toolkits to develop the gaming course environment. Summarized, we hope that learners are able to learn the course quickly and easily by using our proposed learning mode, and the learning competency will be improved. The prototype still needs other research and technique assistance, such as content design, art design and game design. To be frank, game development is a huge work. Especially for the educational game, it supplies educational and entertainment functions.

5. Reference

[1]. Prensky M., Digital Game-Based Learning, New York: McGraw-Hill, 2001.
 [2]. Merrill, P. F., Hammons, K., Vincent, B., R., Reynolds, P. L., Christensen, L. & Tolman, M. N. Computers in Education, Allyn & Bacon, Needham

- Heights, Mass, 1996.
- [3]. Bramucci, R. S. , Digital Game-Based Learning In Webct, in the Proceedings of WebCT 2002 – 4th Annual User Conference, 2002.
- [4]. Keri Facer, Future Lab Research, http://www.futurelab.org.uk/research/disc_papers.htm, referenced 2006.1.24
- [5]. Brownfield, Sharon, & Vik, Gretchen , Teaching basic skills with computer games. Training and Development Journal. Vol. 37(12): 53-56, 1983
- [6]. Wood, Larry E, & Stewart, Penee W., Improvement of practical reasoning skills with a computer game. Journal of Computer-Based Instruction. Vol 14(2): 49-53, 1987.
- [7]. Ravenscroft, Andrew, Developing and evaluative dialogue games for collaborative e-learning. Journal of Computer-Assisted Learning. Vol. 18(1): 93-101, 2002.
- [8]. Kennedy, R. S., Bittner, Alvah C., Harbeson, Mary M., & Jones, Marshall B. , Television computer games: A "new look" in performance testing. Aviation, Space, and Environmental Medicine. Vol. 53(1), 1982
- [9]. Ang Chee Siang, Radha Krishna Rao, Theories of Learning: A Computer Game Perspective, Proceedings of the IEEE Fifth International Symposium on Multimedia Software Engineering (ISMSE'03), 2003

本計劃的前身是屬於整合型計劃[結合互動影音與遊戲導向之設計與實施]，其中包含四個子計畫，第一子計畫 互動式影音遊戲教學引擎之發展、第二子計畫 支援 3G/WiMax 手持式遊戲教學平台之行動管理機制、第三子計畫 互動式影音遊戲教學課程之設計與實施、第四子計畫 互動式影音遊戲教學環境與課程之評量。本計畫屬於第三子計畫，在第一年之目標為[教育理論與遊戲理論之整合性]、[主題式教育科目之設定]、[主題式教學錄影課程之錄製]。在原先的計畫規模中，子計畫三的功能與角色屬於互動式影音遊戲教學課程之設計與實施，通常必須搭配系統、評量與課程實施。因此在獲得一年期研究經費後，我們開始進行研究在遊戲學習的發展。相關的發展適合於學術期刊發表。

已發表之相關研究成果

1. 影音遊戲式學習系統，目前以單機板設計方式規劃出初步的雛型，目前進入實做階段，是一種以一致的編輯工具來設計所有課程的解決方式。符合第一年[教育理論與遊戲理論之整合性]。
Te-Hua Wang; Jui-Hung Chen; Chao, L.R.; Wen-Chih Chang; Shih, T.K., "Developing a prototype of Video Game-Based Learning environment," in Proceedings of the First IEEE International Conference on Ubi-Media Computing, Page(s):586 - 591, 2008.
2. 炸彈超人遊戲幾何色扮演與劇情遊戲，讓學習者扮演炸彈超人的操作者，透過 C 語言的 coding 來操作炸彈超人闖關，安排劇情融入 C 語言的一維陣列、二維陣列、Switch、IF-ELSE、For 迴圈、While 迴圈等。目前已完成系統開發，但是後續相關於 Pointer 等劇情融入課程設計尚未進行，已經安排四個章節內容讓六十多位大學部學生進行測試，已獲得初步結果與分析探討。符合[教育理論與遊戲理論之整合性]、[主題式教育科目之設定]。
Wen-Chih Chang and Yu-Min Chou, "Introductory C Programming Language Learning with Game-based Digital Learning" in Proceeding of the 7th International Conference on Web-based Learning, Page(s) 221-231, 2008. (LNCS 5145)
3. 棋盤遊戲教學運用在大學生學習網路概念中的最小生成樹學習，目前進入遊戲系統實

做階段，預計半年內將進行施測與評估，將投稿學術期刊。屬於第一年結合教育理論與遊戲模式進行 Domain 方面的教學。符合[教育理論與遊戲理論之整合性]、[主題式教育科目之設定]。

Wen-Chih Chang, Yan-Da Chiu and Mao-Fan Li, "Learning Kruskal' s algorithm, Prim's algorithm and Dijkstra's Algorithm by board game," in Proceeding of the 7th International Conference on Web-based Learning, Page(s)275-284, 2008. (LNCS 5145)

4. 卡片遊戲遊戲式學習，設計實體卡片與電腦卡片遊戲，讓學習者實際體驗軟體工程科目中，計畫管理進行的安排工程師、計畫預算考量規劃、程式管理、快速模組發展階段式設計等抽象概念，屬於第一年結合教育理論與遊戲模式進行Domain方面的教學。符合[教育理論與遊戲理論之整合性]、[主題式教育科目之設定]。

Wen-Chih Chang, Yi-Lung Chen and Tsung-Pu Lee,"Computer Assisted Learning with Card Game in System Design Concept," in Proceeding of the 7th International Conference on Web-based Learning Workshop on Blended Learning' 2008, Page(s)97-105. (published as an LNCS volume, in press)

5. 卡片遊戲遊戲式學習，設計實體卡片與電腦卡片遊戲，讓學習者實際體驗作業系統科目中，行程在生活周期中進行的排班、排程、中斷、搶資源等抽象概念。目前進入遊戲系統實做階段，預計半年內將進行施測與評估，將投稿學術期刊。屬於第一年結合教育理論與遊戲模式進行Domain方面的教學。符合[教育理論與遊戲理論之整合性]、[主題式教育科目之設定]。

Wen-Chih Chang; Ching-Wen Sung,"Process state integrated CPU scheduling game," in Proceedings of the First IEEE International Conference on Ubi-Media Computing, Page(s):592 - 597, 2008.

出席國際學術會議心得報告

計畫編號	96-2520-S-216-001-
計畫名稱	結合互動影音與遊戲導向之教學環境-互動式影音遊戲教學課程之設計與實施
出國人員姓名 服務機關及職稱	張文智 中華大學資訊管理系助理教授
會議時間地點	2008.7.15-16 中國蘭州
會議名稱	(中文)第一屆 IEEE 無所不在媒體運算國際研討會 (英文) The First IEEE International Conference on Ubi-media Computing
發表論文題目	(中文)行程狀態整合中央處理器排程遊戲 (英文)Process State Integrated CPU Scheduling Game

一、參加會議經過

第一天會議議程 08:00-08:10 開幕式 蘭州大學校長主持

歡迎大家來參與會議，蘭州大學排名中國前三大的學校，並且在國外的期刊報導中，蘭州大學排在全國第六位，希望透過交流讓學術研究更落實與廣泛討論。

08:10-08:40 Opening Keynote 蘭州大學資訊學院院長

講題 Time to Virtualization

此演講內容較抽象，沒有提及具體的圖形與概念，但是提到中國大陸高教方面預計會提的一個整合性計畫，將整合全國排名前 20 多個學校進行學術面的資源統合，但是目前似乎仍有困難。透過主持人的提問，演講者說明目前仍進行中，在未來將以主要的 4-5 所學校為主軸。

08:40-09:40 Keynote Benjamin W. Wah, UIUC

講題 Subjective Quality Assessment of VOIP Systems Over the Internet

演講者透過自己實驗是在 VOIP 上的研究，介紹這方面的成果。研究的主題是比較 skype 所進行的一段多人對談，接著提供自己的方法所記錄的同一段多人對話實驗比較。最後有學者提問關於網路服務上關於已經阻塞的疑問並且質疑講者的方法。

10:20-12:00 U-Media 2008-1

接著有許多 sessions 同行進行，我選擇參加 U-Media 2008-1 大場的論文報告場次，其中有一位台大博士班研究生報告關於影像擷取偵測的應用。令我印象深刻，並會後與他討論交換名片。整個的議程因為報告者眾多，因此時間顯的倉促。

13:20-14:20 Keynote Kai Hwang, University of Southern California

講題 Digital Content Distribution over P2P Network

講者在報告後段以影片方式顯示自己的成果，並且透過兩個影像的結果一起的顯現，讓特徵部位的影像偵測結果險的更加明顯。

接著第一天下午的兩個場次，由於前一天飛機延誤，只睡 3 個小時的緣故，因此先回去休息。

第二天會議議程

本次擔任大會的 ADET Workshop General Chair，必須照顧所有在 ADET 這個 workshop 的進行與安排。因此花費許多時間處理相關事務。與多位報告者交流並確認議程，並且在整天的三個場次中，與多位學者進行交流，學者如下：

柯威特大學

Sami Habib 副教授

北京交通大學

計算機與信息技術學院 信息科學研究所副所長

苗振江 教授

浙江大學

郭文英 老師

蘭州大學

Qingguo Zhou 博士

靜宜大學

資訊傳播工程學系教授兼系主任

蔡英德 教授

台東大學

資訊管理系

林育珊 助理教授

高雄應用科技大學

資訊管理暨研究所

丁建文 助理教授

台東大學

資訊工程學系兼研究發展處學術服務交流組組長

張耀文 助理教授

僑光技術學院

資訊科技系主任

劉柏伸 助理教授

僑光技術學院

資訊科技系

洪啟舜 助理教授

聖約翰科技大學

電機工程系

徐椿樑 博士

聖約翰科技大學

資訊工程系

鄧有光 助理教授

中國科技大學

資訊工程系

廖逸群 助理教授

龍華科技大學

網路工程學系

黃俊宏 助理教授

明新科技大學

資訊管理系

邱川峰 助理教授

10:20-12:00 ADET-2008-1 主要著重於 Q&A 支援 e-learning 技術與理論

14:20-16:00 ADET-2008-2 RFID 支援教學、西北師範大學對於教學師資的計劃探討與整理、行動式裝置支援學習的相關論文探討。我對於國師範院校體制不熟析，因此提問相關問題。另外也對 RFID 與 GPS 對於幼稚園的論文也提出建議。

16:20-18:00 ADET-2008-3 主要對於遊戲式學習、教學編輯工具、影像處理編輯為重點。其中北京交通大學信息科學研究所副所長苗振江教授，提出對於遊戲式學習的遊戲環境、劇本、開發工具等疑問，與會學者們對此彼此多方交流。

二、與會心得

本會議的相關 keynote 有許多場次，其中部分的場次由於邀請的學者學術研究較屬於地方區域性(如蘭州大學資訊學院院長的演說)的研究，因此對於通盤性的學術深度較不夠，但是對於許多 keynote 的選擇提供大家有許多認識其他或自己學術領域的機會，實屬難得。另外，與科威特大學的 Sami Habib 副教授討論過程中，可以獲多關於在學術研究與自己教學與輔導等多方面的時間分配與管理，受益良多。

出席國際學術會議心得報告

計畫編號	96-2520-S-216-001-
計畫名稱	結合互動影音與遊戲導向之教學環境-互動式影音遊戲教學課程之設計與實施
出國人員姓名 服務機關及職稱	張文智 中華大學資訊管理系助理教授
會議時間地點	2008.7.15-16 中國蘭州
會議名稱	(中文)第一屆 IEEE 無所不在媒體運算國際研討會 (英文) The First IEEE International Conference on Ubi-media Computing
發表論文題目	(中文)行程狀態整合中央處理器排程遊戲 (英文) Process State Integrated CPU Scheduling Game

一、參加會議經過

第一天會議議程 08:00-08:10 開幕式 蘭州大學校長主持

歡迎大家來參與會議，蘭州大學排名中國前三大的學校，並且在國外的期刊報導中，蘭州大學排在全國第六位，希望透過交流讓學術研究更落實與廣泛討論。

08:10-08:40 Opening Keynote 蘭州大學資訊學院院長

講題 Time to Virtualization

此演講內容較抽象，沒有提及具體的圖形與概念，但是提到中國大陸高教方面預計會提的一個整合性計畫，將整合全國排名前 20 多個學校進行學術面的資源統合，但是目前似乎仍有困難。透過主持人的提問，演講者說明目前仍進行中，在未來將以主要的 4-5 所學校為主軸。

08:40-09:40 Keynote Benjamin W. Wah, UIUC

講題 Subjective Quality Assessment of VOIP Systems Over the Internet

演講者透過自己實驗是在 VOIP 上的研究，介紹這方面的成果。研究的主題是比較 skype 所進行的一段多人對談，接著提供自己的方法所記錄的同一段多人對話實驗比較。最後有學者提問關於網路服務上關於已經阻塞的疑問並且質疑講者的方法。

10:20-12:00 U-Media 2008-1

接著有許多 sessions 同行進行，我選擇參加 U-Media 2008-1 大場的論文報告場次，其中有一位台大博士班研究生報告關於影像擷取偵測的應用。令我印象深刻，並會後與他討論交換名片。整個的議程因為報告者眾多，因此時間顯的倉促。

13:20-14:20 Keynote Kai Hwang, University of Southern California

講題 Digital Content Distribution over P2P Network

講者在報告後段以影片方式顯示自己的成果，並且透過兩個影像的結果一起的顯現，讓特徵部位的影像偵測結果顯的更加明顯。

接著第一天下午的兩個場次，由於前一天飛機延誤，只睡 3 個小時的緣故，因此先回去休息。

第二天會議議程

本次擔任大會的 ADET Workshop General Chair，必須照顧所有在 ADET 這個 workshop 的進行與安排。因此花費許多時間處理相關事務。與多位報告者交流並確認議程，並且在整天的三個場次中，與多位學者進行交流，學者如下：

柯威特大學		Sami Habib 副教授
北京交通大學	計算機與信息技術學院 信息科學研究所副所長	苗振江 教授
浙江大學		郭文英 老師
蘭州大學		Qingguo Zhou 博士
靜宜大學	資訊傳播工程學系教授兼系主任	蔡英德 教授
台東大學	資訊管理系	林育珊 助理教授
高雄應用科技大學	資訊管理暨研究所	丁建文 助理教授
台東大學	資訊工程學系兼研究發展處學術服務交流組組長	張耀文 助理教授
僑光技術學院	資訊科技系主任	劉柏伸 助理教授
僑光技術學院	資訊科技系	洪啟舜 助理教授
聖約翰科技大學	電機工程系	徐椿樑 博士
聖約翰科技大學	資訊工程系	鄧有光 助理教授
中國科技大學	資訊工程系	廖逸群 助理教授
龍華科技大學	網路工程學系	黃俊宏 助理教授
明新科技大學	資訊管理系	邱川峰 助理教授

10:20-12:00 ADET-2008-1 主要著重於 Q&A 支援 e-learning 技術與理論

14:20-16:00 ADET-2008-2 RFID 支援教學、西北師範大學對於教學師資的計劃探討與整理、行動式裝置支援學習的相關論文探討。我對於國師範院校體制不熟析，因此提問相關問題。另外也對 RFID 與 GPS 對於幼稚園的論文也提出建議。

16:20-18:00 ADET-2008-3 主要對於遊戲式學習、教學編輯工具、影像處理編輯為重點。其中北京交通大學信息科學研究所副所長苗振江教授，提出對於遊戲式學習的遊戲環境、劇本、開發工具等疑問，與會學者們對此彼此多方交流。

二、與會心得

本會議的相關 keynote 有許多場次，其中部分的場次由於邀請的學者學術研究較屬於地方區域性(如蘭州大學資訊學院院長的演說)的研究，因此對於通盤性的學術深度較不夠，但是對於許多 keynote 的選擇提供大家有許多認識其他或自己學術領域的機會，實屬難得。另外，與科威特大學的 Sami Habib 副教授討論過程中，可以獲多關於在學術研究與自己教學與輔導等多方面的時間分配與管理，受益良多。