

出國報告（出國類別：開會）

赴日參加 2013 資訊和社會科學  
國際研討會  
出國報告

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## 摘要

學生吳亦軒與老師朱基銘於 2013 年 9 月 23 日至 2013 年 9 月 27 日赴日本名古屋所舉辦之 2013 資訊和社會科學國際研討會(ISS)，此次研討會與行銷、物流和商業國際研討會(MLB)一起合辦，主要提供學者交換最新資訊和社會科學領域的研究成果互相交換意見，並海報展示”輔助冠狀動脈心臟病診斷之邏輯斯迴歸、決策樹、類神經網路及複合分析模型效能比較”文章；大會論文將收錄國際商業和資訊期刊(IJBI, ISSN: 1728-8673)。此次研討會重點為兩大類，資訊科學及社會科學領域；此次資訊科學類泛指電子病歷的運用、通訊傳輸應用及資料探勘，社會科學領域則為社會媒體傳播及社會科學相關之主題。

此次大會邀請 Kaoru Endo 教授講述東日本大地震和社會媒體，在災難發生後人們最初獲得的資訊大部分是從新聞媒體所得之，而 Endo 於 2011 年-2012 年進行使用社交媒體的調查，發現各地區和不同族群之間是有所差距，新聞應在不同年齡間有所橋接，減少大眾使用上的差距，這種新聞的作法可稱為“social journalism”。

本次會議讓學生增廣見聞，互相討論與學習，並磨練自己語文能力，達到擁有不同世界觀的理念。並感謝國防醫學院及國科會讓我能夠有機會出國參加此次研討會。藉由此次研討會，除可以吸收到不同國家的新知外，還能在最短的時間內快速掌握到專業與學術近期熱門話題，此外從研討會的論文中也可以用最快的效率吸收研究者之精華，並可從參考文獻中得到許多延伸參考的資訊、機構，可以是充實自己知識的最佳捷徑。

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# 2013 資訊和社會科學國際研討會重點摘要

## 目的

赴日本名古屋所舉辦之 2013 資訊和社會科學國際研討會(ISS)，此次研討會與行銷、物流和商業國際研討會(MLB)一起合辦，主要提供學者交換最新資訊和社會科學領域的研究成果互相交換意見，並海報展示”輔助冠狀動脈心臟病診斷之邏輯斯迴歸、決策樹、類神經網路及複合分析模型效能比較”文章；大會論文將收錄國際商業和資訊期刊(IJBI, ISSN: 1728-8673)。

此次研討會重點為兩大類，資訊科學及社會科學領域；此次資訊科學類泛指電子病歷的運用、通訊傳輸應用及資料探勘，社會科學領域則為社會媒體傳播及社會科學相關之主題，並交流關於資訊和社會科學領域近期在國際上之最新議題，並訓練語文能力，擴展國際觀。

# 過程

此次研討會參加過程從開始的文章整理撰寫至研討會的選擇及申請國科會補助，如下描述：

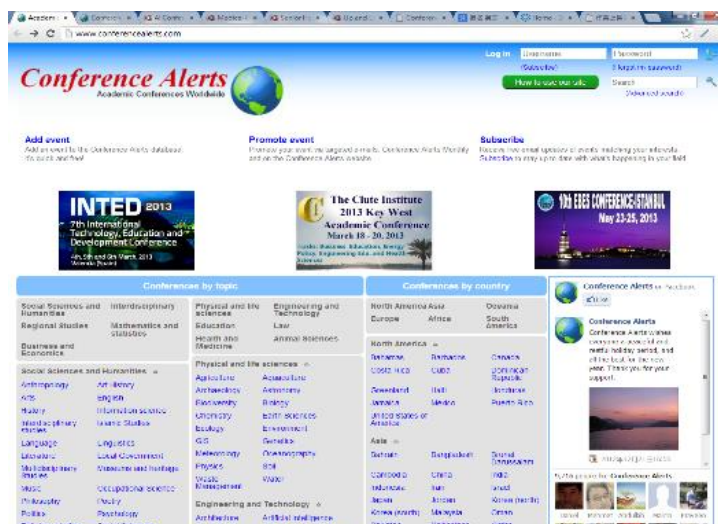
1. 於 2013 年初開始文章之彙整，並將其整理成英文文稿，此篇題目為”輔助冠狀動脈心臟病診斷之邏輯斯迴歸、決策樹、類神經網路及複合分析模型效能比較”，中文摘要如下：

目前對冠狀動脈粥樣化心臟病患者其診斷與治療甚為重要，但是否需要進行血管攝影手術檢查，仍沒有非侵入性、成本低且精確的評估標準。藉此本研究發展複合預測模型，探討能否有效提升預測能力，並期望可提供具體的參考依據。

收集 2005 年 8 月 1 日及 2006 年 8 月 31 日期間及 1993 年 1 月 1 日至 1993 年 3 月 31 日期間於三軍總醫院心臟內科心導管室接受冠狀動脈血管攝影手術檢查的患者，排除急性心肌梗塞（Acute Myocardial Infraction, AMI）及無效樣本。利用決策樹可有效地篩選變項之特性，先篩選出重要變項，再放入其他模型中訓練；其為本研究所指複合模型；例如：將決策樹所挑之重要變項放入 RT、無預防過度訓練類神經網路模型及 80% 預防過度訓練類神經網路模型，結果為準確度會逐步提高。若決策樹預測能力遠差於類神經網路預測能力，則進行複合模型將無法提高其預測準確度，但外推性仍可提高。

2. 於年中時選擇與文章有相關主題之研討會，透過 Conference Alerts 網站挑選合適主題的研討會，深入了解大會的相關內容後並進行投稿流程，尋找研討會網站如

下圖所示，且於大會接受稿件後同步申請國科會所提供國內研究生出席國際會議之補助。



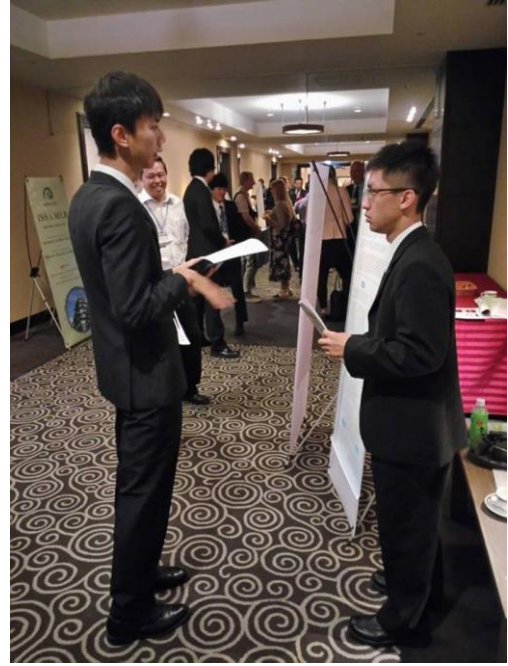
Conference Alerts 網站頁面

3. 2013 資訊和社會科學共 3 日，2013.9.24-2013.9.26(邀請函詳如附錄一)，下方將列出幾項學生 聽到還蠻感興趣之議題：

3.1 24 日為此研討會開幕式及安排一場演講，Kaoru Endo 教授講述東日本大地震和社會媒體，在災難發生後人們最初獲得的資訊大部分是從新聞媒體所得之，而 Endo 於 2011 年-2012 年進行使用社交媒體的調查，發現各地區和不同族群之間是有所差距，新聞應在不同年齡間有所橋接，減少大眾使用上的差距，這種新聞的作法可稱為“social journalism”。演講結束後主持人介紹日本名古屋的歷史及周邊環境；會後開放與會者互相認識。

3.2 25 日上午會議主要為展示” 輔助冠狀動脈心臟病診斷之邏輯斯迴歸、決策樹、類神經網路及複合分析模型效能比較”此篇海報(海報詳如附錄二)，並與不同之與會者互相討論及交流此主提所延伸的不同層面。

- 與與會者討論議題：
  - 邏輯斯迴歸、決策樹、類神經網路及複合分析模型在這篇研究的最後結果分別是哪個模式下是較好的，複合模型是如何處理。
  - ◆ 將決策樹所挑之重要變項放入 RT、無預防過度訓練類神經網路模型及 80%預防過度訓練類神經網路模型，結果為準確度會逐步提高。若決策樹預測能力遠差於類神經網路預測能力，則進行複合模型將無法提高其預測準確度，但外推性仍可提高。利用決策樹可有效地篩選變項之特性，先篩選出重要變項，再放入其他模型中訓練；其為本研究所指複合模型
  - 收案的日期分別為 1993 年和 2005 年，為何分了兩個年份進行個案的納入及這兩年的收案方式。
  - ◆ 收集 2005 年 8 月 1 日及 2006 年 8 月 31 日期間及 1993 年 1 月 1 日至 1993 年 3 月 31 日期間於三軍總醫院心臟內科心導管室接受冠狀動脈血管攝影手術檢查的患者，排除急性心肌梗塞（Acute Myocardial Infraction, AMI）及無效樣本。



與學者互相討論海報內容



老師與學者互相討論



下午時參加 跨領域的資訊學科 I 講題(文章詳如附錄四)

- 接受和使用 UTAUT 機構的電子醫療照護的影響因素

研究中提到因資訊技術的快速進步，可以縮短等待的時間和過程，這樣的資訊技術也提供了更為便利的方式與醫生先進行預約，作者在文章中指出大多數使用健康照護的民眾，電子健康照護可以包含：電子健康紀錄、遠距醫療、使用者的健康資訊、關於健康的知識管理。而此篇研究中共回收 200 份問卷，分析發現在泰國醫院，民眾對於預期期望、努力期望、社會影響力這三個面相會影響到使用電子醫療照護，且可對電子健康照護的決策給予建議，達到更好的生活品質。

- RFID 系統的安全和隱私問題(文章詳如附錄四)

無線射頻技術(RFID)以發展相當長一段時間，RFID 主要是透過短距無線電波進行傳輸，儘管 RFID 技術越來越成熟且帶來更方便的技術，但它也帶來了些問題，當中隱私性是關注已久的，RFID 的標籤是唯一的，在沒有驗證的情況下及會被人進行追蹤得知標籤位置，另一可能攻擊者會更改標籤內的資訊，導致影響資訊的正確性。故此篇研究作者提出一方法，使用”Huffman”編碼，給予 ID 標籤編碼，並用散列函數來增加數據的安全性，而此一作法作者也認為是可以有效的提高其隱私性及安全性。

- WEB 3.0 和其組織(文章詳如附錄四)

Web 2.0 是一個以用戶為中心的網路環境資訊模型，主要是來建立網路資訊的互動性，適應性及搜尋功能。而下一代的 Web 3.0 則是將 Web 2.0 和語義標籤技術整合，增強創新及提高生產力，並擴展至商業行為，加強前端制度及後端資料庫的收集和研究。並觀察下一代網路技術 web 3.0，在利益和支持性與技術有效性及可否提高 web 生產力。

### 3.3 26 日會議參加 管理資訊系統此一研討議題

- 透過逐步整合並加速採用醫療資訊交換(文章詳如附錄四)

近年來資訊技術快速發展，而醫療機構也將以往紙本病歷轉為電子化，採用電子化不但能夠提高品質、安全性及效率；此篇描述了許多人認，醫療資訊的交換是很有幫助的，但在發展上極其緩慢，而此一研究發展出 4 個不同的等級的模式路徑，並逐步來整’將醫療專業人員及大眾整合於其中，來發展可交換的醫療資訊。作者提出一個以健康資訊系統(HIS)為基礎的架構，來讓病人可以安全的調閱自己病歷，並跨越地區的限制達到病歷的交換，發現可以提高品質和節省醫療成本的好處。

## 心得建議

研討會議為期 3 日，會議學者分別來自不同國家進行分享及研討，本次活動中遇見各國不同學者在資訊及社會科學上之研究與創新技術。此次在海報展覽中認識一位來自新加坡 Ahangama 學者，其專長為電子健康照護的資訊技術發展，學生與此為學者互相討論關於可攜式電子健康紀錄的看法以及發展狀況，發現新加坡與台灣目前的現況差異不大，目前皆在積極推動電子健康紀錄的流程及推廣跨院區的電子病歷調閱。

此次研討會讓學生獲益良多，除了體驗到與國內所舉辦之研討會的方式有所差異，並了解到目前在不同國家中對於資訊或是社會科學領域所發展的現況及未來發展或是研究的方向，帶給學生不同的思維與啟發。本次會議也讓學生增廣見聞，互相討論與學習，並磨練自己語文能力，達到擁有不同世界觀的理念。並感謝國防醫學院及國科會讓我能夠有機會出國參加此次研討會。藉由此次研討會，除可以吸收到不同國家的新知外，還能在最短的時間內快速掌握到專業與學術近期熱門話題，此外從研討會的論文中也可以用最快的效率吸收研究者之精華，並可從參考文獻中得到許多延伸參考的資訊、機構，可以是充實自己知識的最佳捷徑。

### 建議：

- **對國內政府學術主管機關的建議：**應強化國內醫療資訊產業，提升國內醫療資訊人才培訓及計畫研究，以符合未來醫療資訊產業需求。
- **對舉辦研討會之建議：**大會手冊與第一日研討會表定時間並未相符；此次 ISS 與 MLB 合辦，但大會手冊在規劃論文場次時沒有安排在一起，讓與會者翻閱時較不能快速找到場次。建議可以將相同場次安排在手冊同一內讓與會者能夠快速翻閱。此次會議為小型研討會，但建議應有晚宴形式，讓各與會者較有互動的場合及時間，能夠互相討論。

## 附錄一 大會邀請函

ISS 2013 Acceptance Notification and Invitation Letter (ID: A3248)

Acceptance Notification and Invitation Letter for International Conference on Information and Social Science (ISS 2013) at ANA Crowne Plaza Hotel Grand Court Nagoya, 24~26 September 2013 <http://ibac-conference.org/ISS2013>

Dear Yi-Hsien Hsu, Fu-Chi Chen, Yi-Syuan Wu, Chi-Ming Chu

I am pleased to inform you that based upon the recommendations of two blind reviewers your paper has been accepted for presentation at the ISS 2013, to be held in Nagoya, Japan on 24-26 September 2013.

Paper #: A3248

Title: Investigating the Models of Logistic Regression, Decision Tree, Artificial Neural Network and Hybrid Analysis for Predicting Coronary Author(s): Yi-Hsien Hsu, Fu-Chi Chen, Yi-Syuan Wu, Chi-Ming Chu

At this time, please make sure that you take care of the following details:

1. Please upload your camera-ready final submission (in DOC or PDF Format) via the conference website before June 25, 2013. Final manuscripts received after the deadline may not be included in the proceedings. Detailed instructions can be found at <http://ibac-conference.org/iss2013>
2. The authors should register and pay the registration fee for the conference before 25 June 2013. The related information about registration and conference fee could be available at online submission system <http://175.99.76.113/ISS/> At least one author must register and pay the registration fee by the deadline.
3. Please use the reservation link available at the conference website to reserve your room. Room confirmation is subject to hotel availability. Please reserve early.

The details about the above can be found at <http://ibac-conference.org/ISS2013>. Once again thanks for your interest in the conference. We look forward to your participation in this very important event for the Information and Social Science community.

Yours sincerely,

Shigeki Yokoi

Conference Chair of ISS 2013

& e-Society Designer, Ph.D.

# 附錄二 張貼海報

## Investigating the Models of Logistic Regression, Decision Tree, Artificial Neural Network and Hybrid Analysis for Predicting Coronary Artery Disease

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### ABSTRACT

Currently, patients of Coronary Arterial disease (CAD) with diagnosis and treatment are important, the whether it need for angiography-surgery examination, still no non-invasive, low cost and accurate assessment criteria. The purpose of this study is development hybrid model, explore to possibility of effectively enhance the predictive ability and expect to provide specific reference. Data collection for implementing model was drawn from database of cardiology division in the Tri-Service General Hospital during the 2 periods from August 1, 2005 to August 31, 2006 and from January 1, 1993 to March 31, 1994. Exclude Acute Myocardial Infarction (AMI) and invalid samples. Data collection time, including August 1, 2005 and 2006, August 31, 1993 and January 31 to March 1993, Tri-Service General Hospital cardiology cath lab undergoing coronary angiography surgical examination of patients, and the exclusion of acute myocardial infarction (Acute Myocardial Infarction, AMI) and invalid samples. First, the use of decision trees for screening of research variables, important variables can be picked out via the DT model. (This is study hybrid model). Secondly, these important variables might help other models like as Artificial Neural Network with averting over-fitting set 80% sampling (ANN80) to select feature for modeling input variables. such as: Decision tree to pick an important variable in the Multivariate Logistic Regression (LR), non-over-fitting Artificial Neural Network and ANN80, were all improved than the single model performs. In addition, a decision tree hybrid model will not perform better when a DT model performs worse than ANN model. The composite model will not be able to improve the prediction accuracy, but have improved the model's external validity.

**Keyword:** Coronary Arterial disease, ANN, Decision Tree, Multivariate Logistic Regression, composite model

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### 1 INTRODUCTION

In recent years, Taiwan's elderly population aged over 65 increased gradually, the Republic of 82 years to 93 years, the proportion of elderly population from 7.13% to 9.48%, so the elderly physical and mental health and medical problems are becoming increasingly concerned by the general public.

Coronary heart disease and associated risk factors in the past has been widely discussed, and the use of coronary heart disease in clinical and preventive care assessment preliminary examination, and the current diagnostic methods in nuclear medicine - Thallium 201 myocardial perfusion shots in noninvasive diagnostic methods in one of the ways the most reported, the diagnosis of coronary artery occlusion levels reach 75% without a sensitivity of 93% and a specificity of 51%, with an accuracy of 79%. But now non-invasive examination methods not superior sensitivity and specificity of invasive - surgery Coronary angiography examination, and thus unable to avoid unnecessary surgery in patients checking, and every one of the doctor's preliminary judgment correct often depends on the doctor's experience is adequate.

The study expects to explore the logistic regression, decision trees, neural networks and other models of the strengths and weaknesses of each other short and finally, the establishment of a complex model, and the expectations of the composite model does improve predictive capability.

### 2 METHOD

Data collection time, including August 1, 2005 and 2006, August 31, 1993 and January 31 to March 1993, Tri-Service General Hospital cardiology cath lab undergoing coronary angiography surgical examination of patients, and the exclusion of acute myocardial infarction (Acute Myocardial Infarction, AMI) and invalid samples.

**Table 1.** data to evaluate the predictive ability of 2005 years – Accuracy

Models	2005 data					
	ACC			AUC		
	Training	Testing	$\Delta$ (Difference)	Training	Testing	$\Delta$ (Difference)
LR	71.17	66.45	-4.73	62.40	53.47	-10.95
DT	83.89	62.97	-20.92	86.33	61.23	-25.10
ANN100	88.55	61.98	-26.57	89.73	65.20	-24.53
ANN80	75.28	60.78	-14.50	82.53	63.87	-18.67
DL	93.47	79.85	-13.62	81.33	60.77	-20.57
DA100	84.70	61.98	-22.72	86.93	66.50	-20.43
DAB0	72.95	60.13	-12.82	78.73	62.37	-16.37

**Table 2.** data to evaluate the predictive ability of 1993 years - Accuracy

Models	1993 data					
	ACC			AUC		
	Training	Testing	$\Delta$ (Difference)	Training	Testing	$\Delta$ (Difference)
LR	91.29	71.89	-19.40	50.90	59.00	8.10
DT	87.90	72.94	-14.96	93.43	79.33	-14.10
ANN100	94.14	71.29	-22.85	95.63	79.77	-15.87
ANN80	76.24	75.04	-1.20	83.67	82.17	-1.50
DL	86.41	57.49	-28.92	82.30	83.10	0.80
DA100	87.29	75.84	-11.45	91.67	80.83	-10.83
DAB0	74.97	76.49	1.52	81.47	83.90	2.43

**Table 3.** assessment models to compare different forecasting ability - Accuracy

Models	1993 and 2005 data					
	ACC			AUC		
	Training	Testing	$\Delta$ (Difference)	Training	Testing	$\Delta$ (Difference)
LR	81.23	74.17	-7.07	55.50	55.68	-0.18
DT	85.90	67.96	-17.94	89.08	70.28	-18.80
ANN100	91.35	66.64	-24.71	92.68	72.48	-20.20
ANN80	75.76	67.91	-7.85	83.10	73.02	-10.08
DL	100.00	93.67	-6.33	81.82	71.93	-9.89
DA100	86.00	68.91	-17.09	89.30	73.67	-15.63
DAB0	73.96	68.31	-5.65	80.10	73.13	-6.97

### 3 RESULT

Year of assessment according to different models of forecasting ability - accuracy (ACC), AUC as shown in Table 1 and Table 2. The ACC files according in different models and training or testing samples ACC average, places data in 2005 on behalf of the predictive power of each model. Example: 2005 data, LR model test sample ACC 66.45, as shown in Table 1; Table 2 for the 1993 data of the predictive ability of different models, all of the data in Table 3 of the predictive ability of different models.

Calculated for each variable was the model before the 40% number of important variables, when this number  $\geq 3$  are classified as important variables. Example: Age are five models of the first 40% of the important variables, then the number of times the age of five; gender three models (DT, ANN80, DAB0) of the first 40% of the important variables, gender is

3 times; rheumatic two models (DT, DAB0) of the first 40% of the significant variables, rheumatic heart disease, the number is 2; last selected variables as age, sex.

### 4 CONCLUSION

Decision tree to pick an important variable in the Multivariate Logistic Regression (LR), non-over-fitting Artificial Neural Network and ANN80, were all improved than the single model performs. In addition, a decision tree hybrid model will not perform better when a DT model performs worse than ANN model. The composite model will not be able to improve the prediction accuracy, but have improved the model's external validity.





與會者海報



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口頭報告



口頭報告



口頭報告



大會攜回資料



參加證明

## 附錄四 演講者論文摘要

### Analysis of factor affecting in unified theory of acceptance and use of technology (UTAUT) e-healthcare of government hospitals in Thailand

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Mahidol University 25/25 Nakorn Pathom, Thailand  
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#### ABSTRACT

The purpose of this study is to investigate which factors have an influence with UTAUT E-Health of government hospitals in Thailand. 200 Questionnaires have been completed by recruited people. The entirely collected data has been analyzed and interpreted by Statistical software and the results of this study reveals that performance expectancy, effort expectancy, social influence, facilitating conditions, it knowledge in clouding the modulators (age, gender, experience and voluntariness of use) on using behavior intension. This study will help to support E-Health adoption in the decision making, planning management and support technology performance, make better quality of life.

Keyword: Unified theory of acceptance and use of technology (UTAUT), E-Health, Hospitals

#### INTRODUCTION

Currently, Information Technology has been applied widely and played a Major role in science. Developing countries. Commercial education, politic and others health care. It can be seen from the new biotechnologies that there are many varieties and rapidly growing volumes. Furthermore, Information Technology has been becoming a key factor and influencing social such as reducing the time and process. Information technology will provide you for convenience ways to make an appointment with the doctors giving a consult in remote area and even to prevent your time prior to waste it in traffic jam. This research focusing on which factors is the most influence with the user's E-Health The term can encompass a range of services or systems that are at the edge of medicine/healthcare and information technology, including:

- Electronic health records: enabling the communication of patient data between

## THE SECURITY AND PRIVACY ISSUES OF RFID SYSTEM

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### ABSTRACT

In this paper, we introduce the problem in privacy and security. And then we proposed a new idea. We use the Huffman code to encode the tag ID. And we use the hash function to augment the data security. Our protocol provides that each RFID tag emits a pseudonym when receiving each and every reader's query. Therefore, it makes tracking activities and personal preferences of tag's owner impractical to provide the user's privacy. In addition, our proposed method provides not only high-security but also high-efficiency.

Keyword: Huffman code, privacy, RFID

### INTRODUCTION

Recently, RFID (Radio Frequency Identification) has become a important technology, but it also raises some privacy problem. An integral RFID system consists a tag, a reader and a host system. The tag is a small electronic chip with a antenna, that contain an Electronic Product Code (EPC) that can provide an unique identifiers for any production. RFID use radio wave to transmit the data. Then it identifies and accesses the data by using the radio./citechi07

Although RFID technology is more and more convenient and popular, it also brings some problem. One of the problems is privacy. Today, Tag can be read remotely by any reader. And every tag has the unique ID. The consumer that has a tag may be traced insensibly. For example, important field may use the RFID tag to track the people movement without verify. And we have the other situation. Reader can

## **Web 3.0 and the organisation**

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### **ABSTRACT**

This article investigates the next generation of web technologies referred to as Web 3.0 and assesses their influence on the organisation. Having defined Web 3.0 as the integration of Web 2.0 and the Semantic Web, the research identifies potential benefits and explores the effectiveness of Web 3.0 technologies in supporting innovation, increasing productivity and freeing human resources so that they can be used to better serve business development. It then examines the impact Web 3.0 has on the social organisation and addresses adoption issues.

**Keywords:** Information Management, Knowledge Management, Social Technologies

### **INTRODUCTION**

#### **Background**

Web 2.0 (O'Reilly 2005) is a user-centric web environment where information modelling is based on non-standardised user-generated folksonomies and innovation originates in social interaction (Patrick & Dotsika 2007; Hayman 2007). The Semantic Web (Berners-Lee 2001) is a machine-centric framework of web standards, semantic-driven, with formal classification schemes and highly searchable content. Its innovation is built on find-ability (Hendler 2008; Joo 2011). Both paradigms are based on the interlinking of information and create information networks which are highly dynamic, interactive, adaptive and searchable. Merging the power of the two paradigms requires semantification of web content and begets the new generation of web applications referred to as Web 3.0 (Ankolekar et al, 2007). Semantic technologies coupled with social networking can instigate innovative influence with wide organisational implications that can benefit a considerable range of industries. The scalable business models of social computing and the collective intelligence of organisational social media can be resourcefully paired with internal research and knowledge from interoperable information repositories, accounting systems and back-end databases.

#### **Methodology**

The research methodology followed was action research. A combination of

# ACCELERATING THE ADOPTION OF HEALTHCARE INFORMATION EXCHANGES THROUGH PROGRESSIVE INTEGRATION

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## ABSTRACT

Despite many perceived benefits from accessing and exchanging patient information across healthcare providers (HCPs), the adoption of healthcare information exchanges (HIEs) has been slow. Numerous efforts related to the implementation of HIEs are typically focused on consolidation of data within a region or a network, and have resulted in a growing number of HIEs implemented at different levels that required further integration with other HIEs. Several organizational, technical and economic challenges affect the speed of adoption of HIEs and subsequent implementation. This paper proposes an approach - based on the salient characteristics of care provision environment and of integration requirements - to address typical challenges through an interconnected network of exchanges aimed at supporting different types of healthcare providers and HIEs offering a generic set of services, and a migration path for healthcare providers and HIEs through four different levels.

Keyword: Healthcare information exchanges, Challenges, Integration approaches

## INTRODUCTION

In recent years healthcare organizations have been undertaking initiatives for adopting new systems and processes to improve quality, safety and efficiency (Ciriello and Kulatilaka, 2010). Implementation of Electronic Health Records (EHR) constitutes a significant part of such initiatives. EHRs include different types of longitudinal health information such as demographic, progress notes, problem lists, medication lists, information about allergies, diagnostic test reports, immunizations, and discharge summaries.

A typical HIE supports secure access to patient information (part of EHR) across healthcare organizations, and offers benefits in terms of improved quality and savings in healthcare cost. For example, Patel et al (2011) find that physicians perceive HIEs potential in improving various aspects of healthcare as they can electronically view

# 附錄五 大會手冊

## Proceedings of International Conference on Information and Social Science (ISS) & International Symposium on Marketing, Logistics, and Business (MLB) September 24~26, 2013, Nagoya, Japan

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Conference Map.....	錯誤! 尚未定義書籤。
Guide to Presenters and Session Chair .....	錯誤! 尚未定義書籤。

## General Conference Overview

<i>Tuesday, September 24, 2013</i>			
16:00~17:00	Welcome Reception Welcome Remark: Prof. Shigeki Yokoi, Nagoya University Keynote Speaker: Prof. Kaoru Endoh, Gakushuin University Topic: The Great East Japan Earthquake and Social Media		
<i>Wednesday, September 25, 2013</i>			
08:00~17:00	Registration		
08:30~10:00	Finance p. 10	MIS I p. 11	Business I p. 34
10:00~10:30	Coffee Break & Poster (Information p. 30)		
10:30~12:00	Information Technology I p. 12	Economics p. 13	Marketing I p. 35
12:00~13:30	Lunch		
13:30~15:00	Info. Society & Comm. p. 14	Information Management I p. 15	Logistics I p. 36
15:00~15:30	Coffee Break & Poster (Social Science p. 31)		
15:30~17:00	Multi Articles in Info. I p. 16	Multi Articles in Soc. Sci I p. 17	Management I p. 18
<i>Thursday, September 26, 2013</i>			
08:00~17:00	Registration		
08:30~10:00	Information Management II p. 19	Multi Articles in Soc.Sci. II p. 20	Business II p. 37
10:00~10:30	Coffee Break & Poster (Marketing and Business p. 42)		
10:30~12:00	Information Technology II p. 21	Sociology & Psychology p. 22	Marketing II p. 38
12:00~13:30	Lunch		
13:30~15:00	Sociology p. 23	Management II p. 24	Logistics II p. 39
15:00~15:30	Coffee Break		



15:30~17:00	<b>MIS II</b> p. 25	<b>Management III</b> p. 26	<b>Multi Articles in Info. II</b> p. 27
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## Welcome from Conference Chair

Welcome to Nagoya.

I am pleased that researchers from over 30 countries all over the world attended to this conference. Although social aspect of information science is very important in this age, I feel there are not so many international conferences in the field of social informatics. In this conference, I expect that active discussions by researchers will promote new progress of social information science.



Nagoya produced three famous warriors - Samurai- and many feudal lords were originated from Nagoya in the beginning of Tokugawa age about 400 years ago. So, Nagoya is the important place of Samurai culture. Please discuss with many active researchers and enjoy ISS/MLB 2013. And please enjoy the city of Nagoya.

A handwritten signature in black ink, which reads "Shigeki Yokoi". The signature is written in a cursive, flowing style.

Prof. Shigeki Yokoi  
Conference Chair of ISS & MLB

## Keynote Speech

**04:00 PM – 05:00 PM | Tuesday, September 24, 2013**

**Room: Oshidori**

**Topic: The Great East Japan Earthquake and Social Media**

### Keynote Speaker



Professor Kaoru Endo

Kaoru Endo is vice-chairman of The Society of Social Informatics. She is also Professor of Department of Political Studies, Gakushuin University. Her research and teaching focus on issues relevant to Sociology, Socio-Informatics, and Media.

### Keynote Speech Outline

The Tohoku region, a large area in north-east Japan, was severely hit by the Great East Japan Earthquake that occurred at 14:46 on March 11, 2011. The severe earthquake had an impact not only within Japan but also on the entire world. As expected in a disaster situation, people initially searched for information immediately following the disaster. However, in this situation, damage from the earthquake extended to the news media as well, and the fragility of the media itself was exposed. Ultimately, the Great East Japan Earthquake revealed many problems for the mass media, as well as the potential for major changes in the future concerning the relationship between people and mass media channels.

In recent years, social attention has been drawn to social media, which has gained prominence since the mid 2000s. But the influence of social media is not isolated from that of other media and its close relationship with other media channels as seen during this disaster may not necessarily exist again. Social media has always been connected with other media as an information source. Endo refers to the connection and interaction between such media as “inter-mediality.”

Endo conducted social surveys on social media use in and after the Great East Japan Earthquake in 2011 and 2012. The most important finding gained from the results of the survey is that gaps in social media use among areas and among generations were expanded by the disaster. Journalism in the age of inter-mediality should bridge such disparities by using not only existing mass media but also social media. Such journalistic practices can be called “social journalism.”



## **International Conference on Information and Social Science (ISS)**

### **ISS International Committee**

Akin Marsap, Istanbul Aydin University, Turkey  
Akira Hattori, Kanagawa Institute of Technology, Japan  
Ayako Hashizume, Tokyo Metropolitan University, Japan  
Azizah Rajab, Universiti Teknologi Malaysia, Malaysia  
Carlo Reggiani, University of Manchester, United Kingdom  
Christophe Bisson, Kadir Has University, Turkey  
Chun Kit Lok, The University of Hong Kong, Hong Kong  
Clemente Minonne, Zurich University of Applied Sciences, Switzerland  
Eisuke Kita, Nagoya University, Japan  
Ekrem Erdem, Erciyes University, Turkey  
Eric Chui, The University of Hong Kong, Hong Kong  
Evelyn Devadason, University of Malaya, Malaysia  
Fefie Dotsika, University of Westminster, United Kingdom  
Gonçalo Costa, Autónoma University of Lisbon, Portugal  
Guy Boy, Florida Institute of Technology, United States  
Hamidah Abdul Rahman, Universiti Teknologi Malaysia, Malaysia  
Harun Ozturkler, Afyon Kocatepe, Turkey  
Ioana Andreea Stanescu, Carol I National University of Defence, Romania  
Irmawati Norazman, Universiti Teknologi Malaysia, Malaysia  
Jonghwa Kim, University Augsburg, Germany  
Jorge Tiago Martins, The University of Sheffield, United Kingdom  
Kamariah Ismail, Universiti Teknologi Malaysia, Malaysia  
Kaoru Endo, Gakushuin University, Japan  
Karunaratne Hettige Don, University of Colombo, Sri Lanka  
Louise Cooke, Loughborough University, United Kingdom  
Maria Pampaka, The University of Manchester, United Kingdom  
Mario Arturo Ruiz Estrada, University of Malaya, Malaysia  
Masaru Yoneyama, Nagoya University, Japan  
Mehmet Dikkaya, Kirikkale University, Turkey  
Melanie Ramdarshan Bold, Loughborough University, United Kingdom  
Metin Karadag, Ege University, Turkey  
Michele Grimaldi, University of Cassino and Southern Lazio, Italy  
Mohd Noor Azli Ali Khan, Universiti Teknologi Malaysia, Malaysia  
Mohd Norfian Alifiah, Universiti Teknologi Malaysia, Malaysia  
Nilay Yücel, Onsekiz Mart University, Turkey  
Nishantha Giguruwa, Ritsumeikan Asia Pacific University, Japan

Noraini Abu Talib, Universiti Teknologi Malaysia, Malaysia  
Olaf Maennel, Loughborough University, United Kingdom  
Pak Hung Mo, Hong Kong Baptist University, Hong Kong  
Partha Gangopadhyay, University of Western Sydney, Australia  
Paula Morais, University Portucalense, Portugal  
Paulo Teixeira, Instituto Politécnico do Cávado e do Ave, Portugal  
Pohan Fong, City University of Hong Kong, Hong Kong  
Preeyanuch Apibunyopas, Kasetsart university, Thailand  
Radha Sankararajan, SSN College of Engineering, India  
Rohaizat Baharun, Universiti Teknologi Malaysia, Malaysia  
Roziana Shaari, Universiti Teknologi Malaysia, Malaysia  
Saif Rehman, Universiti Teknologi Malaysia, Malaysia  
Shah Rollah Abdul Wahab, Universiti Teknologi Malaysia, Malaysia  
Shereena M. Arif, National University of Malaysia, Malaysia  
Shinya Miyazaki, Chukyo University, Japan  
Shukor Sanim Mohd Fauzi, Universiti Teknologi Mara, Malaysia  
Simon Fong, University of Macau, Macau  
Takami Yasuda, Nagoya University, Japan  
Wenchang Fang, National Taipei University, Taiwan  
Zaheer Baber, University of Toronto, Canada

### **International Symposium on Marketing, Logistics, and Business (MLB)**

MLB International Committee

Amran Harun, Universiti Malaysia Sabah Malaysia, Malaysia  
Badar Iqbal, Aligarh Muslim University, India  
Bidhu Kanti Das, Mizoram University, Aizawl, India, India  
Chandra Prakash Mall, Banaras Hindu University, India  
Debadyuti Das, University of Delhi, India  
Didem Pasaoglu, Anadolu University, Turkey  
Faridah Hj Hassan, Universiti Teknologi MARA, Malaysia  
Frédéric Jallat, ESCP Europe, France  
Friedrich Starkl, Upper Austria University of Applied Science, Austria  
Hon-Tat Huam, Quest International University Perak, Malaysia  
Iga Rudawska, University of Szczecin, Poland  
Ismi Rajiani, Universiti Teknikal Malaysia Melaka, Malaysia  
Jacob Eskildsen, Aarhus University, Denmark  
Janusz Adamczyk, University of Zielona Gora, Poland  
Khatijah Othman, Universiti Sains Islam Malaysia, Malaysia  
Krzysztof Witkowski, University of Zielona Gora, Poland  
Maciej Dzikuć, University of Zielona Góra, Poland

Muayyad Jabri, University of New England, Australia  
Nek Kamal Yeop, Universiti Pendidikan Sultan Idris, Malaysia  
Nilay Yücel, Ç anakkale Onsekiz Mart University, Turkey  
Nurul Fadly Habidin, Universiti Pendidikan Sultan Idris, Malaysia  
Olga Pilipczuk, Szczecin University, Poland  
Olivier Colot, University of Mons, Belgium  
Peter Rauch, University of Natural Resources and Life Sciences, Austria  
Pui Mun Lee, SIM University, Singapore  
Rodney Arambewela, Deakin University, Australia  
Ruth Yeung, Institute for Tourism Studies, Macao  
Saudah Sofian, Universiti Teknologi Malaysia, Malaysia  
Won-jun lee, Cheongju University, Korea  
Wenchang Fang, National Taipei University, Taiwan

| **Thursday, September 26, 2013**

## **International Conference on Information and Social Science**

**(ISS)**

### **ISS Conference Schedule**

#### **Poster Session**



| **Thursday, September 26, 2013**

**10:00 AM - 10:30 AM** | **Wednesday, September 25, 2013**

**Room: Foyer of 6<sup>th</sup>**

**Floor Session Topic:**

**Information**

***Mobile Device Apps: Information Management for Academic Libraries***

Jennifer Beamer, University of Hawaii

***Identifying The Relevance of Personal Values to E-Government Portals' Success: Insights from A Delphi Study***

Obaid Almalki, University of Bedfordshire

Yanqing Duan, University of Bedfordshire

Ingo Frommholz, University of Bedfordshire

Markus Haag, University of Bedfordshire

***Investigating the Models of Logistic Regression, Decision Tree, Artificial Neural Network and***

***Hybrid Analysis for Predicting Coronary Artery Disease***

Yi-Hsien Hsu, National Defense Medical Center

Fu-Chi Chen, National Defense Medical Center

Yi- Syuan Wu, National Defense Medical Center

Chi-Wen Chang, Chang Gung University

Chi-Ming Chu, National Defense Medical Center

***Social Interactivity in A Healthcare Based Mobile Platform for Elders***

Supunmali Ahangama, National University of Singapore

Danny Chiang Choon Poo, National University of Singapore

***The Impact of Group Music Therapy on Depression and Cognition in Elderly Persons with***

***Dementia: A Randomized Controlled Study***

Kuei-Ru Chou, Taipei Medical University

Yu Lin, Taipei Medical University & Kang-Ning Junior College of Medical Care and Management

***The Security and Privacy Issues in RFID Information System***

Iuon-Chang Lin, National Chung Hsing University

| **Thursday, September 26, 2013**

**03:00 PM - 03:30 PM | Wednesday, September 25, 2013**

**Room: Foyer of 6<sup>th</sup> Floor**

**Session Topic: Social Science**

***How Narcissistic Characteristic and Self-Esteem are Correlated to Social Anxiety of Children?***

Kyung-Hyun Suh, Sahmyook University

***Is There Certain Personality of Clasical Music or Personality of POP Music?***

Jeong Yang Park, Sahmyook University

Kyung-Hyun Suh, Sahmyook University

***A Case Study on the Spatial Problems of Office Design in Kuala Lumpur, Malaysia***

Arita Hanim Awang, International Islamic University Malaysia

Zuraini Denan, International Islamic University Malaysia

***New Social and Security Risks, Excluded Areas, Crime and Unemployment in Selected Areas of The Moravian-Silesian Region***

Hana Vykopalová, VŠB - Technical University of Ostrava and Brno University of Technology

***Using Social Diversity in Our Advantage***

Parisa Rafipour, Politecnico di Milano

Kamdin Zare, Politecnico di Milano

| **Thursday, September 26, 2013**

## **Projector**

During the conference, an LCD projector, screen and laptop (notebook) computer will be provided for each meeting room. Any additional equipment needed is at the discretion of the presenter, and it will be his or her responsibility to provide the extra equipment.

## **Registration Hours**

September 24, 2013 (Tuesday)	15:30~17:00
September 25, 2013 (Wednesday)	08:00~17:00
September 26, 2013 (Thursday)	08:00~17:00

## **Lunch**

Four tea breaks and two lunches are included in the conference registration fee. Lunch would be provided for registered (paid) participants only. The lunch time is 12:00-13:30.