CURRICULUM RENEWAL AND PROFESSIONAL DEVELOPMENT

When our trail-blazing programme started in September 1999-2000, we offered a number of modules which were thought of as being "rather esoteric", among them was ICOM009 "Voice and video over the Internet" taught by the very distinguished Professor Fouad Tobagi from Stanford University. This was what he told our students:

"With the explosive growth of the Internet, a wide spectrum of new applications is being contemplated. They relate to every aspect of modern life: communication among people, news and entertainment, education and training, shopping, publishing, commerce, banking, investment, medicine, and so on. These applications are of a "multimedia" nature, in that they combine information in all its forms (data, images, audio and video), and distributed in nature, thus involve networking. To support these new applications, a number of network related technical challenges are to be addressed and met: higher network bandwidth, new network protocols and management functions, and new applications level software."

So our first batch of graduates had a nine-year start over those of other more conventional programmes in understanding and learning about such applications, which are now the crucial corner stones of the technical foundation for many popular social and business networks and telecommunications services, for examples, YouTube, My Space, Facebook, Skype, iTunes, to name just a few.

The curriculum of our programme has always prided itself on being ahead of the times, because our Programme Management Team not only strive to invigorate the curriculum by replacing some existing modules with new ones every two years based on our reading of business and technology trends, we are also supported in this renewal efforts by our faculty who continuously update their modules based on their inside research knowledge of what will be the next cutting-edge technologies. I would like to encourage our graduates to return to enrol in some of the new and revised modules so that they can continuously develop themselves professionally, step ahead of the market and be innovative leaders in their field.

In the last semester, we have offered two new modules on "Mobile and pervasive commerce" and "Technology convergence and digital entertainment". In the next issue of this newsletter, and in the Programme Office's email circulars to our graduates later on in the year, we will be announcing more new and revised modules. You are welcome to enrol in these at half fee. Meanwhile, for this issue of the newsletter, I have invited Associate Professor Ricky Kwok, who will revise his ICOM core on "Internet systems programming" for 2009 to include P2P, to give us a short introduction of this technology. Ricky is our foremost researcher in this field, who has been programming with students intensively in P2P systems. He is the editor for Journal of Parallel and Distributed Computing in P2P Computing.

In this issue, we also have a contribution from one of our exchange students. Some of our more recent graduates would have noticed that for the past few years, they have been joined by a couple of French-speaking students from Paris. This is because of a collaborative project started by our former Dean, Professor T.S. Ng with the Institute of Telecommunication in Paris.

Our reputation has grown through the word-of-mouth recommendation of those early exchange students who were impressed by our Programme, faculty and fellow students. Peter Loomis, one of our faculty members, in return, has also been most impressed by what these students have brought to the Programme through their industry and enthusiasm. Their willingness to ask questions and volunteer information has energised the class.

Finally, I wish to take this opportunity to thank our immediate past president Michael Tsui of the Alumni Association and to welcome our new Alumni President, Patrick Chan, who is from the class of 2000.

Professor Paul Cheung
Programme Director

* The above chart does not include modules which will be offered in alternate year. Please visit the MScc/ECOM&IComp) webpage for the full list.
ANOTHER YEAR OF BONDING MERRIMENT

THE OLYMPIC SPIRIT

In 2007 I enrolised as a Beijing Olympics volunteer, yet I was unable to attend the qualifying written examination as I had to be out of town. However, I was assigned a project by my company to organize some athletes’ gear for our sponsored national athletics teams for the Games. With this opportunity, I visited Beijing again after my last marathon running there two years ago.

My last experience in the Beijing Marathon was not too pleasant as a consequence of the severe air pollution and dust. However, this time I was impressed by the changes which have taken place in Beijing: the gorgeous new and contemporary architecture such as the “Bird’s Nest” sporting venue and the National Aquatic Centre and the improvement in the quality of the air due to the strenuous efforts which Beijing government had exerted so far. The talk of the town, of course, was about the Olympic Games. You can hear about “Olympic this” or “Olympic that” everywhere! The Beijing residents are all proud of China and themselves for hosting this stunning event. Although many people have had to work extremely hard to prepare the Games, they have not complained because they treat all assigned work as contribution to the national team effort. I appreciated all these changes. As a Chinese, I am certainly proud of my own country when I witness the achievement and commitment made.

Being the President of the HKU MEICOM ALUMNI for the 2008-9 term, I share a feeling similar to that felt by members of the Beijing organizing committee hosting the Olympic Games. On the one hand, it is an incredible honour to be responsible for such a great project. On the other hand, it requires a strong commitment and responsibility to continue and develop the HKU MEICOM ALUMNI further. However, like the Olympics, success is the sole effort of one person; it must come from the team work, with support from all members.

In the HKU MEICOM AOGM held this Sunday, I met the board members, many of whom had been working hard to maintain the AOGM. Some of them are experienced Board Members (re-appointed for different positions this year), Sincere thanks to them for their unrewarded assistance. The board members are now faces because they are still current students. I hereby bid them here welcome as they provide the exciting new blood we need!

I am very pleased to see the passion and devotion from the new and old faces of my Board, not unlike those of the Beijing residents I have seen. I am motivated and with great faith I anticipate that our team mates will treasure this opportunity to work together and to contribute as much as we could to the HKU MEICOM ALUMNI.

The following are the Board of Directors of year 2008-09.

MEICOM ALUMNI ASSOCIATION DIRECTORS 2008-09

Patrick Chan - President
Vesa FONG - Vice President
Ernest LEE - VP Member & Social Activities
Leatrice NGAN - Secretary & Student Affairs
Clare WONG - Treasurer
Karl CHAN - Director, Social Activities
Janice CHOU - Membership & Professional Services
Jack LUI - Director, Sports
Timmy MAK - Director
Bobby PAK - Director
Nelson CHUNG - Director, Charity & Social Responsibility
Adrian HO - Director, Website Maintenance
Wei Wei LIM - Director, Social Activities
Alge MA - Director, Sports & Website Maintenance
Edwin NG - Director, Sports
Miranda NG - Director, Sports
Michael TSAI - Immediate Past President

Training in Beijing

IN JULY, 2008 ISSUE

ANNUAL EVENT AT THE LADIES’ RECREATION CLUB

Associate Professor
Ricky Kwok, MSc(Econ&Comp) Programme Co-director

Highly empowered individual users computing and cyberpunks, make mutual fundamental changes in our daily life because machines are evolving into the next stage of decentralized data processing power in an environment where competition is essential. That is, it is a distributed computer, that is user machines, it be a desktop computer or a handheld PDA (personal digital assistant), have data and processing power that was inconceivable merely a decade or two ago, in terms of information processing rate, amount of storage and reliability. Indeed, computing now operates like a ‘networked’ or ‘edge of networks’. Network infrastructure systems have also made tremendous strides, thanks to the ever increasing amounts of computing that have occurred. Advanced in computing and communication, computer networking has become a key element in the new form of distributed processing: peer-to-peer computing, or P2P for short.

As its name implies, P2P computing involves users (or their machines) on equal footing because there is no designated server or client, at least in a persistent sense. Every participating user can be a server and a client, depending on context. This contrasts with traditional computing, where we have referred to this as a ‘democratic computing environment’, because users are free from centralized authorities’ control. This new model, distributed computing has spurred many high profile applications, most notably file-sharing, with wallpaper names such as BitTorrent, Gnutella, Skype, and Napster. According to many records, there have been a great number of P2P applications and many others, generate almost 70% of the total traffic of the whole daily basis. It is believed that this trend will continue.

Apart from the most commonly known wired P2P platforms, many other wireless P2P applications and other wireless P2P applications have become part of our daily life. For example, people can now play numerous online and video games which are compatible with mobile phones so that players are allowed to interconnect in local area through Bluetooth or Wi-max through GPRS. Moreover, for example, (Nokia, Sony Ericsson, 3G, 6080, 320, Sony Ericsson Z600, Motorolo A1100, etc.). In many metropolitan cities such as Hong Kong and Tokyo, we can observe that some train commuters routinely play wireless games online as well as use other popular devices such as PDAs (Play Station Portables). Now, many mobile phones also already have 128MB or higher MS-MMC card storage capacity. Indeed, it is now a common practice to have P2P file transfer through short-range wireless in addition to Bluetooth.

The highly flexible features of P2P computing such as large dynamic population, users come and go asynchronously at will, dynamic topologies (it is impractical, if not impossible, to enforce a fixed communication structure), and anonymity, come at a significant cost. Authority, by its very nature, is not always in harmony with tight cooperation. Consequently, efficient or lack of cooperation could lead to undesirable effects in P2P computing. Among them, one of our concern is “free-riding” behavior. Loosely speaking, free-riding occurs when some users do not follow the prescribed altruistic cooperation rules such as sharing files voluntarily, sharing bandwidth and thus contributing to the whole community.

Such altruistic sharing actions, presumably, would bring indirect and intangible (and even remote) returns to the users. For instance, everyone shares files voluntarily, every user would eventually benefit from the high availability of a large and diverse set of selections. Unfortunately, there are some users who do not believe or believe in such sharing. Hence, they “rationalize” to choose just to enjoy the benefits derived from other user’s contribution but not contribute their own resources. Thus, a successful P2P system requires an effective incentive providing mechanism, which is currently a very hot topic of P2P research.

Apart from incentives, there are at least two other major research problems faced by a P2P system:

Firstly, even if a participating peer has all the benefits, it is still a very costly issue that needs to be handled. Specifically, if there is no trust management system implemented, P2P networking is particularly difficult for a cooperative peer to determine whether the other peer is trustworthy or not. For example, in a file sharing application, it can be difficult for a cooperative peer to accept a file sent from a remote peer who may not be trustworthy.

Secondly, as a P2P system scales up performance quickly becomes an issue. Indeed, many popular file sharing P2P systems can have hundreds of thousands of users participating at the same time. The response time perceived by each peer is therefore critically determined by how efficient the P2P network can deliver the requests and results. One major factor in the network topology, which governs how the participating peers are connected with each other. Specifically, it can have a structured topology, an unstructured topology, or a hybrid between the two. Nevertheless, for all P2P systems, topology control is always needed to dynamically adjust the connectivity among peers in order to maintain the performance of the P2P applications.

P2P is a new and exciting development, and it will provide a very different and difficult challenge to operators of electronic commerce.
FROM PARIS WITH FOND MEMORIES

I am a student from National Institute of Telecommunication in France. I have just completed four months of study at the MSc(ECom&IComp) Programme in Hong Kong as an exchange student.

Even though I knew little about Asia or Hong Kong, I have chosen to join the ECom&IComp Master Programme to complete my senior year. When I started gathering information about the programme and the University of Hong Kong, I quickly realised that if I were accepted, my participation would be an experience to be cherished and remembered. I was not disappointed.

Even though I didn’t speak Cantonese or knew anything about the way of life in Hong Kong, the Programme Office staff was always willing to help and ready to answer my questions, sent me the relevant documentation and pointed me to the relevant Internet sources of information. Once I arrived in Hong Kong, I benefited from the orientation programme put on by the University in welcoming exchange students, and the Programme’s faculty, the Programme Office and my fellow students were willing to share, to help and to exchange ideas and information.

The big challenge for me was actually to meet Hong Kong students and to be able to communicate despite our differences in culture, language and the way of learning. I had the chance to expand my network in Hong Kong and also with other exchange students from all over the world. The diversity of the professional background of the my fellow students on the MSc(ECom&IComp) programme students was also very interesting and enriching.

Academically, the new way of studying was very different from what I knew in France. My own intellectual capacities were challenged, because I had to adapt myself to the Hong Kong way of critical thinking, teaching and assessment. The dynamic curriculum allowed me to learn new opinions and ideas about e-commerce, management, finance etc.

Back in my home university, I have been very happy to talk about the quality of the professors on my enrolled modules in the Programme; that they have come from renowned Asian and other universities from North America, Europe and Australia.

Any regrets? Of course not! Just a lot of pleasant memories and new professional opportunities!

Douina Zouine
Exchange student

PROGRAMME OFFICE UPDATES

NEW MODULES TO BE OFFERED

The annual curriculum review of the MSc programme in Electronic Commerce and Internet Computing has been completed. Decisions have been taken to enhance the curriculum through the updating of existing modules and the progressive introduction of new modules.
• Mr. Peter Looms will teach a new ICOM elective module on "Digital assets and multimedia computing".
• Dr. Ricky Kwok has revised his ICOM core module on "Internet systems programming" to include P2P.
• New topics like business intelligence and telecommunications services will be introduced in later semesters.

CONTINUING PROFESSIONAL DEVELOPMENT (CPD) COURSES

Graduates are welcome to enroll in MSc(ECom&IComp) modules for continuing and professional development purpose. We will offer the new modules as CPD courses to our graduates if enrolment quota allows. Information about CPD courses is published on the programme web site in September, December, and May. Watch out for our email notification if you are interested!

WELCOMING RECEPTION FOR COHORT 2008-09 STUDENTS

We will have a welcoming reception for Cohort 2008-09 students on 30 August 2008. Graduates and current students are welcome to attend this gathering and share your experience with new students. Please contact the Programme Office if you would like to participate.

ECOM-IComp EXPERTS ADDRESS

The ECom-IComp Experts Address series is designed primarily to keep students and alumni of our programme up-to-date with the information technology and electronic business trends around the world, and given by our visiting instructors who may also choose to share other expertise beyond that shown in their modules.

Prof. Michael Shamos presented the talk "A Formula for Innovation" in January 2008. He explained the situations in which innovation has paid off or failed in some corporations.

Mr. Peter Looms gave a talk on the future of digital television on 11 April 2008. He examined the evidence from markets around the world, attempted to separate reality from hype and come up with some conclusions about the future of television.

In May, Prof. Norman Sadeh presented his research study on phishing attacks. His study explained why people fall for phishing attacks and the types of solutions that are available.

Upcoming seminar:

Prof. Denis Lee will give a talk on "Functional Fixedness as a Critical Barrier to Effective Design and Implementation of Integrated Information Systems" on 8 August. He will examine the sources of biases and explain why challenges are particularly daunting for achieving integrated information systems, especially in China today.

The slides and video recording of most of the addresses are available on our web site: http://www.ecom-icom.hku.hk/seminar/

MEICOM CONNECT welcomes contributions and comments. Please email them to msc@ecom-icom.hku.hk. Deadline for the next issue: 8 December 2008.