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**A GLOBAL VIEW OF THE STATUS OF ELECTRONIC BUSINESS/
ELECTRONIC COMMERCE IN COLLEGIATE SCHOOLS OF BUSINESS
(Panel)**

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ABSTRACT

This panel will discuss electronic business from the perspective of curriculum and coursework development in collegiate schools of business. As the Internet empowers individual consumers from throughout the world, it is also changing traditional business and economic models. Therefore, schools of business are re-examining their course offerings with the intent of updating curriculum to better reflect the ever-changing business and technological environment. The panel members will each discuss the e-business curriculum developments as they see them taking place within their respective country and region.

1. STATUS OF EB/EC WITHIN BUSINESS SCHOOLS WITHIN THE UNITED STATES

The e-learning marketplace is forecast to be one of the most rapidly growing sectors of the new economy, putting traditional business school programs at a competitive disadvantage. Providing an understanding of new market forms and processes that are emerging, along with knowledge of the technology infrastructure that enables e-commerce, will prepare students to meet the challenges of new kinds of interactions among companies, their suppliers, customers and internally within the organization. Developing a comprehensive e-commerce program requires a significant investment in planning, development and resource acquisition.

Program challenges include identifying practical approaches to blending pedagogical strategies, allocating faculty and physical resources, and constructing a curriculum that reflects the strengths of each program. Several approaches will be highlighted, including:

1. University of Wisconsin-Eau Claire. Using a cross-functional, multidisciplinary approach, a 3-credit e-commerce module is taught within a 1-year entrepreneur undergraduate program and a 1-credit elective introducing the basics of e-commerce within the MBA curriculum.
2. Bentley College, Waltham, MA. Bentley has introduced a comprehensive graduate e-commerce program, including state-of-the-art specialized information technology facilities supporting integrating information technology within the rest of the e-commerce curriculum.
3. University of Toledo, Toledo, OH. Overcoming uncertainties and resource limitations, the University of Toledo has developed an undergraduate e-commerce specialization that complements other business programs.

While most agree that university programs are the keys to successful entrance into the world of e-commerce, alternative training should not be overlooked. Clifford Adleman, Department of Education, recently released a study on the growth of IT certification programs, and how this trend is affecting traditional colleges and universities. Currently there are more than 300 certification programs, and certification holders without a BA degree have risen from 19 percent to 37 percent in the past five years.

2. EC HIGHER EDUCATION: AN AUSTRALIAN PERSPECTIVE

The 'New Economy', although at an embryonic stage, has already changed the way business is conducted, threatened traditional business models and has deconstructed supply/value chains the world over.

Higher education in Australia is also experiencing a significant transformation caused by the 'tidal wave' of the Internet. It appears that it has been affected in two ways.

Firstly, many tertiary institutions in Australia are beginning to use the technology of Internet to enhance their interaction with their students. Online higher education is increasing, with a large number of Australian universities offering either all their courses, or substantial parts of them, online. This is not surprising as Australians have traditionally been early adopters of technology and its innovative use to reduce the 'tyranny

of distance' (e.g. the School of the Air provides educational services to Australian outback communities). Although many academics have initiated informal programs where some learning materials are placed online (e.g. PowerPoint slides and electronic versions of tutorial activities), the 'killer' application for enhancing learning at the tertiary level has been Computer Mediated Communication (CMC) through the use 'Discussion Boards' or 'Forums' and 'Chat'. Several universities have set up formal frameworks for teaching the majority of their students online.

Secondly, driven by market forces, Electronic Commerce curriculum development has also been an intense activity in Australian academic institutions recently. It appears that many have taken the 'me too' approach to the introduction of Electronic Commerce courses in Australian tertiary institutions (If 'XYZ University has an electronic commerce course, then we too must develop one'). Although notable exceptions exist, it appears, that little actual development has taken place; rather, more repackaging of existing courses is taking place in the first instance. It is likely that electronic commerce curriculum in Australia will follow three stages as shown in Figure 1 below:

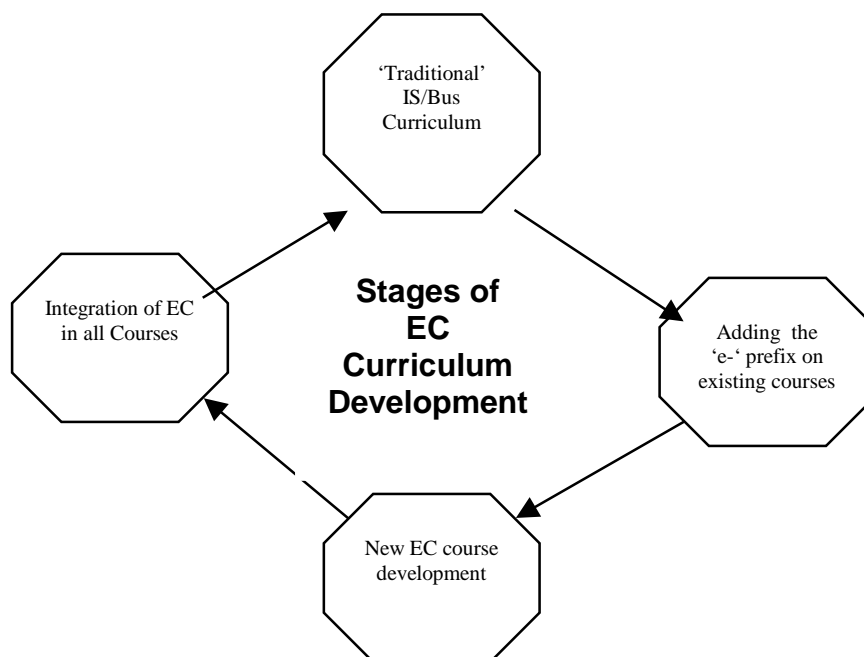


Figure 1: From 'normal' business to 'e-Business' and back again EC curriculum development
Source: Developed by the author

The first stage has involved the repackaging of existing subjects (1 or 2 semester courses). In some cases it may simply have involved the addition of an 'e' in front of the subject (e.g. marketing may have become e-Marketing). There appears to be a lot of e-words out there!

The second was the introduction of several electronic commerce majors, minors, courses and specializations into existing degree programs.

Finally, the third stage is likely to be the full integration and adaptation of electronic commerce into the entire curriculum. As we move from 'e-business' to 'normal' business there may be a 'shedding off' of all the 'e' prefixes in front of tertiary courses as all courses are likely to involve the 'e' business models and technologies.

3. ELECTRONIC BUSINESS HIGHER EDUCATION: A SLOVENE PERSPECTIVE

An investigation into the extent of Internet usage in Slovenia (www.ris.org) has shown that approximately 20% of the Slovene population have access to the Internet or use the Internet (18% in December 1999; 12% in December 1997). In Slovene households the situation is similar – close to 20% of households have

Internet access or use the Internet (15 % in December 1999, 2% in July 1997). PCs are in 40% of all households, which is also the European average.

In Slovene firms the situation is as follows: 98% of them have access to Internet (99% large firms, 93% medium and 85% small firms). (Less than 30% of firms in 1996; 25% large, 18% medium and only 8% small firms). Only 20% of the employees have access or use the Internet to any extent.

In e-trade Slovenia is behind Europe and far behind the USA. Only 5% of the Internet users are recognized as active e-users (In Great Britain 31% of the population is Internet users and 20% of them active e-users. In the USA 53% (144 million) of the population are Internet users and 29% (44 million) of them active e-users). In 1999, in Slovenia approximately 2.5 million Euro was spent for e-purchase (less than 0,1% of the final consumption) and only 20% of that amount was spent in Slovene e-shops. The average amount of an e-purchase in Slovenia is 150 Euro.

Expectations are that Slovenia will have a critical mass of Internet users in 2 to 3 years in all aspects of e-business. One of the important factors is the fact that Slovenia exports 65% of the GDP mainly to EU. Foreign business partners force Slovene companies to start introducing e-business.

Slovene universities and schools respond to these trends differently. In the nineties, first EDI and later e-business graduate and master theses appeared. From that time on, this area has seen many notable changes.

Faculty/university	Undergraduate		Postgraduate (M.S., MBA)		
	e-topics in other courses	e-courses	e-topics in other courses	e-courses	e-program
University college of public administration, ULJ	✓				
Faculty of social sciences, ULJ	✓				
Faculty of economics, ULJ	✓			✓	
Faculty of computer and information science, ULJ	✓			✓	
Faculty of Organizational Sciences, UMB	✓	✓			✓
Faculty of Economics and Business, UMB	✓	✓	✓	✓	
Faculty of computer and information science, UMB	✓		✓	✓	

Table 1: ULJ University of Ljubljana (www.uni-lj.si); UMB University of Maribor (www.uni-mb.si)

The table shows a picture obtained by the help of web sites of the institution. It is possible that institutions offer more e-courses, but no information about them is accessible via the Internet.

Some of them are developing/offering e-programs/e-courses designed for MIS students to become appropriately educated/trained to cope with technological e-business issues. Other e-courses are mainly designed for e-users, where the main goal is to prepare students and future active e-users for e-business and e-economy. This is the case at faculties of business and/or economics.

Faculty of Economics and Business gives special attention to the e-users' side both on the undergraduate and postgraduate level. An e-business course is offered within the Entrepreneurialship program on the undergraduate level and the MS/MBA program. It is designed mainly from the users/management viewpoint and less from a technological perspective.

With this course we try to ensure the learning environment in which the students meet the experts from practice and not only exchange the ideas and experience, but also work together on projects related to business opportunities which could be exploited with the help of the Internet.

Another e-perspective of higher education is distance education, which is rather rare in Slovenia, essentially because of the size of the country. By using Slovene engines, 34 web pages were found using key words that are – according to their authors – related to DE. By the research of the DE in Slovenia (<http://www2.arnes.si/~sspvsulc/prispevki/snd-web01.pdf>) it was found that DE is still in its developing phase, which is why institutions that offer it are rather rare. An exception is the Faculty of Economics in Ljubljana. The average DE web page is meant for primary and secondary education in social sciences, more rarely in natural sciences or technical sciences. Such a page is almost finished and to a great extent interactive. Communication with the learner is mainly done through e-mail.

We all are aware that e-business and e-economy raise demands for new knowledge, which our universities are trying to obtain through different approaches at undergraduate and postgraduate levels of education. In the near future, it will be seen how successful or unsuccessful they are.

4. A GLOBAL VIEW OF THE STATUS OF ELECTRONIC BUSINESS/ELECTRONIC COMMERCE IN COLLEGIATE SCHOOLS OF BUSINESS—HONG KONG

Hong Kong has seen rapid development in both Internet use and e-commerce in the last two years. There were only a little over 600,000 Internet dial-up subscribers at the end of 1998. At the end of 1999, that number had doubled. In mid-2000, Hong Kong has 1.85 million Internet subscribers between ages 12 to 60, account for 37% of the population (www.iamasia.com/freshfocus/freshfocus.cfm; 10/24/2000). It is also estimated that approximately 15% of Internet users in Hong Kong have shopped on line. According to a recent survey on e-commerce in Hong Kong by ACNielsen (Aug. 15, 2000), Hong Kong ranked second only to Japan in terms of e-commerce market value in Asia. Average online spending for Hong Kong was US\$370 in 1999 and that 235,000 people generated US\$89 million in e-commerce market.

The rapid development of e-commerce in Hong Kong is being boosted by the general business environment and outstanding telecommunication infrastructures Hong Kong has (ebusinessforum, June 23, 2000). For example, Hong Kong rolled out the first iTV in the world a few years ago. Currently 75% of all households in Hong Kong have broadband coverage. As of November 1999, Hong Kong had 3.5 million cellular phone subscribers with a penetration rate of over 50%. The E-Business-Readiness Rankings published by the Economist Intelligence Unit (EIU) (May 4, 2000) placed Hong Kong at 9th place in company of 60 countries. The e-business-readiness index used for this ranking is a combination of a country's business environment index and the so-called "connectivity" factor which considers not only the state of the existing telephone network but also factors that affect Internet access, such as dial-up costs and literacy rates.

Being one of the most wired places in the world and one of the most advanced telecommunication infrastructures, Hong Kong has an immense potential with respect to e-commerce. In November 1998, the Hong Kong Government released its IT Strategic Plan outlining four e-commerce enabling initiatives: high capacity communication systems; common software interface for secure electronic transactions; people who know how to use IT; and a culture environment that stimulates creativity and welcomes advances in the use of IT (Hong Kong SRA Information Technology Strategy, November 1999).

It is with the above backdrop that most of the higher education institutions in Hong Kong have started to introduce degree and non-degree programs and courses in e-commerce in the last two years. Business schools have launched most of the programs with some jointly with engineering or computer science departments. Many public institutions (tertiary institutions supported by the University Grants Committee) have offered various graduate and undergraduates degrees in e-commerce. For example, master's in e-commerce are being offered by the Chinese University of Hong Kong, City University of Hong Kong, Polytechnic University, while the Hong Kong University of Science and Technology offers the MS in Information Systems Management with concentration in e-commerce. At the undergraduate level, both City University and Polytechnic University offer bachelor's degree in e-commerce. Lingnan University's

Information Systems stream has been substantially modified with an e-commerce emphasis. These public universities also offer a wide variety of continuing education certificate or diploma programs and courses in e-commerce. At the same time, many overseas universities, especially those from UK, Australia, and U.S. have launched study programs in e-commerce with some of them depending on Web-based teaching partially or fully.

A full description of all degree and non-degree programs will be presented during the panel discussion. Their curriculums and target markets will be examined. An analysis will be made to see whether the graduates of these programs would meet the ever-increasing manpower need of the expanding e-commerce in Hong Kong both in terms of quantity and quality. Problems will also be identified and recommendations put forth.

5. A GLOBAL VIEW OF THE STATUS OF ELECTRONIC BUSINESS/ELECTONIC COMMERCE IN COLLEGIATE SCHOOLS OF BUSINESS—A U.S. PERSPECTIVE

Recent research reinforces the idea that the Internet and computer technology are fundamentally altering the way the U.S. economy operates. E-commerce is fast becoming the preferred way of doing business with the Internet economy growing more rapidly than anyone could have envisioned. This new economy now directly supports 2.5 million workers with net-related revenues jumping to \$524 billion. Researchers expect contributions this year to top \$850 billion with 6.9 trillion in revenues projected by 2003.

As the statistics indicate, all sectors of industry and the U. S. government are participating in this sophisticated technology. A breakthrough in E-Business for the U.S. government came recently when the President launched FirstGov—the first-ever U.S. Government web site that will provide the public with easy, one-stop access to all federal government on-line information and services. This website—located at www.firstgov.gov—provides a single online information portal that will connect Americans with information and resources from all 27 million federal agency web pages, one of the largest and most useful collection of web pages in the world.

The United States dominates E-business/E-commerce worldwide with 144 million users accessing the Internet and approximately 42 million buying goods and services annually. These figures are expected to almost double within the next three years. Never before have there been better opportunities for students interested in E-business related careers. As this area continues to escalate, however, there is concern as to whether business schools provide the necessary curricula to keep pace with the reality of corporate America.

Today, virtually all business schools are scrambling to stake their claim in the new E-economy. In the past year alone, over a dozen institutions have developed E-commerce concentrations. Many others are updating conventional finance and marketing courses with E-business case studies. Carnegie Mellon University unveiled the nation's first M.S. in E-commerce last May, drawing more than 3,000 applicants for 36 slots. Numerous other top-tier schools prefer to weave E-commerce throughout the curriculum. Distance Education on-line web based programs have also become a natural alternative to offer E-commerce to non-traditional students. Quality E-commerce programs prepare students to work for large organizations as well as dot-com companies—and corporate America is recruiting in mass.

A discussion of E-business/E-commerce offerings and programs in top ranked U.S. business schools will reveal the status of these programs followed by an analysis of how the ever-increasing demand for employees in this area can be met.