ICT IN TOURISM

By Dr Vikneswaran Nair & Neethiahnanthan A.R.

In today’s challenging economic situation, it is no longer sufficient for a new graduate to have knowledge of an academic subject but it is necessary for students to gain skills which would enhance their prospects of employment. Most industries of the future, including the tourism industry, are technology driven. Employability in technology-driven skills is increasingly encouraging more and more graduates to master these skills.

It was reported recently (The Star, 16 February 2004) that the demand for information technology (IT) related courses has declined in recent years in Malaysia, with the growing unemployment rate.

The huge number of people and companies affected by the dot-com bubble burst has an impact on enrolment in IT courses in local institutions of higher learning.

It was also reported that despite the demand for skilled workers in IT, about 17,000 IT graduates from local universities were unemployed.

As an employment survey reveals, employers are looking for graduates with the extras.

Nevertheless, the Multimedia Development Corporation (MDC), the facilitator for the Multimedia Super Corridor (MSC), has projected an increase in the employment prospects in the ICT industry for 2004.

In an employment survey conducted by recruitment firm Knowledge Worker Exchange Sdn Bhd (KWX), it was revealed that employment in ICT is expected to grow 23% this year, creating an estimated additional 26.2% job vacancies in ICT.

However, as the employment survey reveals, employers are looking for graduates with the "extras". Employers are looking for specific professional skills including software programming, database and e-commerce, software engineering and project management, systems administration, networking, creative multimedia and telecommunication.

The fusion of ICT into specialised sectors, namely manufacturing, wholesale, business, finance, agriculture, hospitality and tourism, etc could be one way of changing the perception of the various industries towards IT graduates.

The ICT field is growing and it is now widely used in all sectors. Thus, IT professionals with various specialisations are in demand. In the competitive IT market, with the fast emergence of innovative products, IT students need to be prepared to become experts in their own specialisation and not on general IT skills. The tourism sector is one example of an industry driven by ICT.

Tourism is the world’s leading industry in terms of gross domestic product and among the leading industries in terms of job creation. It is a dynamic industry, which has recently begun to draw in the potential offered by ICT.

ICT continues to revolutionise the operational and strategic management of tourism.

In recent years, the tourism industry has undergone rapid and revolutionary changes with the growth of the Internet, electronic-commerce (e-commerce), mobile commerce (m-commerce) and other online technologies.

The information era is here to stay. ICT continues to revolutionise the operational and strategic management of tourism. Electronic-Tourism or in short “e-Tourism” is another phenomenon which is taking the industry to another level.

It is about using Internet technologies to transform the way key tourism-promotion, resort management support and group marketing concept are performed.

e-Tourism is a modern business methodology in the tourism sector that addresses the needs of investors, organisations, and consumers to optimise the resources while improving the quality of products and ensure efficient services.

The potential of developing e-Tourism, which is a fusion of ICT and tourism - the two key catalysts for
enabling dynamic, innovative and knowledgeable communities, is vital to the expansion on the world's largest and most rapidly expanding tourism industry.

The fusion of ICT into specialised sectors could be one way of changing the perception of the various industries towards IT graduates.

In recent years, technological developments have supported tourism innovation and vice versa. ICT has become an imperative partner for tourism. It offers the interface between consumers and suppliers globally. ICT provides the tools and enables the evolution of tourism demand and supply.

ICT in the tourism industry is driven by the development of both size and complexity of tourism demand.

The volume and the quality requirements of contemporary travellers require sufficient knowledge of ICT for the administration of the expanding traffic.

Quantitative growth and qualitative trends of tourism demand force industry members to adopt ICT. ICT facilitates the expansion of the industry and the enlargement of the market.

The growing volume of demand requires advanced ICT capabilities for the management of tourism-based organisations. Top management within tourism organisations needs to appreciate the capabilities of ICT. The tourism organisations of the future will be required to have ICT vision and expertise.

If we are to look to the future, we must include the advances in technology as a major player in the tourism industry. It is not so much the new technology used in the destination because its role is decided by the type of product that is on sale.

A destination that focuses on the cultural aspects is less likely to need high-tech facilities and skills to compete.

Specialised forms of tourism such as eco-tourism, which in many people's eyes is viewed as a very basic form of tourism, must incorporate new forms of technology such as alternative energy into their products if they are going to succeed.

The advances in technology, which are most relevant to the changes within the industry, are those that deal with the dissemination of information. Traditional methods of making reservations are fast becoming a thing of the past. The travel agent is being marginalised by the electronic age. The shop front is no longer necessary, as an increasingly higher percentage of travel is booked electronically. A significant local example is Air Asia, which has changed the flying pattern in Malaysia.

Owing to the ever-increasing dependability of the tourism industry on ICT, a specialisation in tourism technology or e-Tourism can be created for computing students at an undergraduate level.

The aim of such a programme is to produce students with strong computing and IT skills allied to tourism business and commercial knowledge who are able to work in tourism-based business entities and who are adept at developing and using IT systems.

The industry's demand for such hybrid skills is high, and is predicted to increase. Its purpose is also to allow smooth progression into the integrated business and ICT programme courses in any Business Computing or Electronic Commerce programme with a higher proportion of tourism business and technology content.

Over the past decades, the professionalisation of the tourism industry has attracted considerable political and research attention. Various suggestions for improving the quality of service have been put forward, with the upgrading of competences and qualifications of employees at all levels being regarded as particularly crucial.

In addition, the industry now has to reorganise to satisfy complex demand shaped by consumers' increasingly specific requirement.

In addition to the traditional tourism skills, the skills required in the modern tourism industry are now very much diversified. The vocational type of training, which includes hospitality and tourism, is positively influenced through the diversification of the flow of tourism and of tourism products. This in turn creates new types of skills and training provision. The technological upgrading of the tourism industry creates the need to update or work on a new form of vocational expertise, particularly in the areas of IT.

With continued technological change, alternative methods of training and education to acquire these skills are priority key training issues for the future.

With continued technological change, alternative methods of training and education to acquire these skills are priority key training issues for the future. More and more hospitality and tourism educators are successfully using interactive technologies by combining multimedia to train students to keep up with the technological wave that is hitting the industry.

Much research has been done on the use of ICT in the hospitality and tourism industry. Technological innovations are present and will continue to affect the hospitality and tourism industry. The future
hospitality and tourism graduates need to have strong grasp in technological skills and knowledge in order to be successful in the demanding industry.

The tourism curriculum development in Malaysia needs to be matched with the industry needs. Needless to say, for the Malaysian tourism industry to prosper and benefit from the new technology, knowledgeable workforce needs to be developed with IT literacy and managerial skills to support and compete aggressively in the global market.

The growing importance of the tourism industry has resulted in growth and expansion opportunities in the field of tourism education. Tourism education in Malaysia at the same time has expanded from a couple of institutions offering the programme since the 1970s to at least 35 colleges offering it as a major programme of study today. As for IT education in the country, Computing and IT seem to be the popular choice with students in Malaysia (please see table). With the instability of the tourism industry, enrolment in the service-based field of study has been fluctuating. Nevertheless, none of the many institutions of higher learning have taken the bold step of introducing a tourism specialisation in an IT programme.

Currently, out of the more than 150 private higher education institutions offering computing or IT programmes and more than 35 offering hospitality and tourism programmes, only 13 institutions are offering both the tourism and IT computing but on a separate programme at diploma and degree level. None of the institutions is offering the hybrid tourism and IT programme or e-Tourism.

An e-Tourism specialisation programme can be introduced to cater for the ever-increasing technology demand in the tourism industry. The objective of the programme is designed to produce graduates with core competencies in ICT and tourism without compromising managerial competencies with sound business orientation.

In this regard, it is important that careful selection of the relevant course subjects within its definite learning outcome in the curriculum matches the graduate outcome of the e-Tourism programme course. The two key areas of mastery concept of knowledge and skill has to be selective and well defined to ensure the desired outcome, ultimately achieving the right approach in the process of curriculum development for this programme.

In this age of rapid technological

### STUDENT ENROLMENT IN PRIVATE HIGHER EDUCATION INSTITUTIONS ACCORDING TO FIELD OF STUDY (1995 - 2001)

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**SOURCE:** Ministry of Education Malaysia (2002)
developments, which is shaping the way we live and work, is creating a new world of travel opportunities for travel agents and tour operators. ICT is definitely one of the fastest growing areas of the tourism industry, and the trend towards an increased reliance on technology and IT solutions is expected to continue. This could pose a threat to travel agents and tour operators.

For instance, the travel and tourism business requires up-to-date information on an extremely wide range of topics. In the future, the boundaries of the booking process could be pushed right out to the clients, via the Internet. It is an opportunity for people to use technology to make travel planning and execution easier, although it may be a threat to intermediaries such as travel agents and tour operators.

ICT is also changing the landscape of the tourism industry by offering a relevant programme catering to the demand of the industry. In this context, a technological-driven tourism industry is envisaged.

The right concept model for curriculum planning, taking into account the link between the expectation of key stakeholders in the industry and graduate outcomes, is one way to ensure that the programme is relevant and meets industry needs. The programme must be designed to produce graduates who are equipped with the skills and knowledge required to thrive in the fast-paced and competitive tourism industry.

EXERCISE THE RIGHT WAY

A cardiovascular session, not including the warm-up and cool-down, should vary from 20-60 minutes to gain significant cardiovascular and fat-burning benefits.

Each time you do your cardiovascular exercise, try to do at least 20 minutes or more. Of course, the longer you go, the more calories you'll burn and the better you'll condition your cardiovascular system.

All beginners, especially those who are out of shape, should take a very conservative approach and start at relatively low intensities (50-70% max HR) for 10-25 minutes.

As you get in better shape, you can gradually increase the duration of time you exercise. It is important that you gradually increase the duration before you increase the intensity. That is, when beginning a walking programme for example, be more concerned with increasing the number of minutes of the exercise session before you increase the intensity, by increasing your speed or by walking hilly terrain.

MONITORING TRAINING INTENSITY

Please check back for Part Two, where I'll discuss how to monitor your training intensity and how to use heart rate training to achieve the specific results you desire. Until then, remember that cardiovascular exercise should be done a minimum of three times a week and a maximum of 20 minutes per session.

Once your muscles are warm (after warm up) and after the cardiovascular exercise, you should stretch those muscles used in the exercise.

For example, after bicycling, stretch your quadriceps, hamstrings, calves, hips, and low back. After doing the rowing machine, stretch your legs, back, biceps, and shoulders.

Good luck and enjoy all the wonderful benefits of cardiovascular exercise.

- Article provided by Global Health & Fitness

The second part of this article will be available in the next June 2004 issue.

ISLAMIC ART

The gallery is to be named after the late Abdul Latif Jameel who made his fortune after winning exclusive rights to distribute Toyota vehicles in Saudi Arabia in 1955. Business magazine described him as one of the richest people on the planet.

"Our family has a keen interest in world culture and promoting understanding between them, and a commitment to increasing understanding of the Islamic world," said Mohammed Jameel, president and chief executive officer of the Jeddah-based Abdul Latif Jameel Group.

The donation was made through the family's Oxford-based Hartwell company, one of the UK's biggest car retailers.

"We originally began to discuss and plan the renovation of the gallery in 2002 and agreed the principles that year. I am delighted and honoured today to be able to announce that the V&A's new Islamic Gallery will be dedicated to the memory of my parents. "It gives us great pleasure to be able to help the V&A display its superb collection of Islamic treasures in a way that will delight and educate more people than ever," he added.

- London Press Service
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