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E-READINESS AS A TOOL FOR ICT MANAGEMENT IN AN E-UNIVERSITY: THE CASE OF UUM

A thesis submitted to the Graduate School in partial fulfilment of the requirements for the degree Master of Science (Information Technology), Universiti Utara Malaysia

by
Woon Moong Vooi

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ABSTRAK

Projek ini menggunakan pendekatan Kitaran Hayat Aplikasi Pangkalan Data *(Database Application Life Cycle)* dalam perancangan, rekabentuk dan pentadbiran untuk sebuah sistem maklumat *"web-based'* yang dinamakan "Sistem Tinjauan dan Indeks Kesediaan e-Pembelajaran (eLRSIS)". Dengan memaparkan maklumat ukuran secara *"real-time"* tentang lapan faktor utama dalam kesediaan e-Pembelajaran (Psikologi, Sosiologi, Persekitaran, Sumber rnanusia, Kewangan, Teknologi, Peralatan dan Kandungan) dan juga petunjuk dalam bentuk indeks "Big-L", eLRSIS amat berguna dalam pengurusan sumber-sumber ICT, terutamanya dalam kontek penyediaan dan sokongan sistem e-Pembelejaran yang sering berubah pesat. Keputusan daripada eLRSIS dapat mengurangkan kerja-kerja tekaan, di samping dapat membimbing pihak pembuat keputusan di Pusat Pengajaran dan Pembelajaran Universiti (UTLC) UUM, khususnya dalam pengenalpastian sasaran serta penentuan kaedah pembetulan bagi program-program pengurusan perubahan yang direka demi menjayakan e-Pembelajaran. Penggunaan eLRSIS dijangka dapat mempertingkatkan prestasi usaha e-Pembelajaran dan membantu UUM dalam pencapaian status e-Universiti. UUM telah dijadikan kajian kes untuk projek ini, dan ujian perintis melalui prototaip eLRSIS telah mengumpulkan data daripada kakitangan di Sekolah Ekonomi (SE) and Sekolah Teknologi Maklumat (STM). Keputusan awalan menunjukkan bahawa staf akatdemik yang menjadi responden di SE dan STM tersebut masih lemah lagi dari segi kesediaan-kesediaan psikologi, kewangan dan peralatan untuk e-Pembelajaran, sementara itu mereka mempunyai kesediaan yang sederhana atau baik dalam faktor sosiologi, sumber manusia, persekitaran, teknologi dan kandungan untuk e-Pembelajaran.

ABSTRACT

This project applied the Database Application Life Cycle approach in database planning, design and administration for a web-based e-learning Readiness Survey and Index System (eLRSIS). Providing real-time information on eight key factors of e-Learning readiness (Psychological, Sociological, Environmental, Human resource, Financial, Technology, Equipment and Content) and the resultant Big-L index, eLRSIS is useful in the management of fast-changing ICT resources for e-learning provision and support. Results from eLRSIS could reduce guesswork and guide the decision makers at the University Teaching & Learning Centre of UUM in identifying targets and establishing corrective measures through change management programs, ultimately enhancing the performance of e-learning efforts and helps UUM in its quest of transforming into an e-university. Using UUM as case, a pilot-test with the prototype of eLRSIS had collected some data from the staff in the School of Economics (SE) and the School of Information Technology (STM). Preliminary results showed that overall the academic staff of SE and STM have fared weakly in terms of Psychological readiness, Financial readiness and Equipment readiness in e-learning, while scoring averagely in Sociological readiness, Human resource readiness, Environmental readiness, Technology readiness and Content readiness in e-Learning.

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CHAPTER ONE: INTRODUCTION

In the recent years, dramatic changes in information and communication technologies (ICT) have been and still are revolutionizing public and private sector development. Coupling with these ICT changes are new threats and opportunities that keep challenging the traditional role played by business, government, non-governmental organizations, multilateral institutions and universities. One major implication of such persisting ICT change and the differential pace in harnessing those ICT transformation power among the individuals, societies and countries could be seen as the problem of "Digital divide". The digital divide implies a lost opportunity, where the information "have-nots" lose out in using ICT to improve their lives.

The problematic social gaps of "Digital divide" consequently reflects different levels of preparedness (i.e. readiness) among the respective parties in facing the Information Age and Digital Economy. According to UNESCO Asia and Pacific Regional Bureau for Education (2002), e-Readiness or e-Preparedness indicates the degree to which a party or organization is prepared to participate in the networked world or digital economy. It is gauged by assessing an organization's advancement in the areas that are most critical to the adoption of ICTs.

Numerous readiness guides have been developed to assess individual, institutional, community or country's preparedness or readiness for the networked world with

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