INTERNET-BASED SHORT COURSE FOR TEACHER TRAINING COLLEGE

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ABSTRAK

Perubahan era industri ke era pengetahuan mem.berikan cabaran besar dalam dunia pendidikan khususnya dalam pengajaran yang bersifat individu. Oleh itu kita perlu memahami sistem dalam pelbagai konteks serta berupaya berkomunikasi secara setempat dan global dengan menggunakan kemudahan Internet. Ramai pendidik telah mengenal pasti keupayaan Internet untuk pengajaran. Walaupun banyak teknologi Internet seperti mel elektronik, *listservs*, *ftp* dan persidangan video boleh digunakan untuk pengajaran, namum *World Wide Web* masih dianggap medium yang popular. WWW menawarkan capaian mudah untuk teks, grafik, audio, dan video melalui antaramuka yang ramah pengguna serta format yang konsisten. Satu daripada elemen yang paling berkesan dalam penggunaan web untuk pengajaran ialah keupayaan untuk menarik perhatian pelajar dengan format yang interaktif. Kebanyakan laman web pendidikan hanya menawarkan maklumat kursus yang sama seperti sukatan pelajaran, jadual waktu, pengumuman dan senarai bacaan. Di Malaysia, fungsi institusi pendidikan mesti diluaskan agar dapat disesuaikan dengan penggunaan teknologi dalam bidang pendidikan kini. Atas dasar inilah Maktab Perguruan Perlis, Perlis, salah sebuah maktab perguruan, mencadangkan satu Sistem Kursus Pendek berasaskan web untuk mengendalikan kursus pendek dalam talian yang membolehkan guru-guru mengakses maklumat di mana-mana sahaja dan pada bila-bila masa. Projek yang dicadangkan adalah untuk membangunkan satu kursus pendek Komunikasi Data dan Rangkaian yang berorientasikan pangkalan data dan laman web untuk guru-guru IT meningkatkan kemahiran mereka. Kursus ini dibina berdasarkan modul yang digunakan dalam kelas tradisional. Projek ini dijalankan dengan tujuan untuk menghasilkan satu sistem pangkalan data yang berasaskan web bagi membolehkan pembelajaran mudah diakses, bermakna, interaktif, kolaboratif, berpusatkan pelajar dan kemudalenturan. Sistem ini yang dikenali sebagai *Internet-based Short Course System*, telah dibangunkan dengan menggunakan *Database Design Methodology* dan *Web Development Methodology* yang menekankan kepada teknik *Rapid Software Prototyping Methodology* bagi menghasilkan satu prototaip. Pangkalan data *MySQL*, *PHP, Javascript* dan *Apache Web Server* telah digunakan untuk rnembolehkan prototaip ini berfungsi. Sistem ini akan bertindak sebagai satu model rujukan untuk sistem kursus pendek bagi institusi tersebut. Semasa membangunkan kursus ini, beberapa kekangan telah ditemui an beberapa cadangan untuk mengatasi telah diberikan untuk tujuan pembaikan sistem ini pada masa akan datang.

ABSTRACTS

The momentous transition from industrial age to knowledge age delivers a new challenge for the nation as a whole as we negotiate the difficult to educate people. Today we must understand systems in diverse contexts, collaborate locally and global around the globe using new tools like the Internet. Many educators have recognized the potential of using the Internet for instruction. Although many Internet technologies such as e-mail, listsews, ftp and video conferencing can be used to assist with teaching, but the World Wide Web remains the most popular medium. It provides a user friendly front end and easy access to text, graphics, audio and video materials that may be used in a common and consistent format. One of the most powerful elements of using the Web for teaching is the ability to engage learners in an interactive format. Most education Web sites provide basic course information such as syllabus, schedule, announcements and reading lists. In Malaysia, the function of the education institution must be broadening to accommodate the big challenge of the technology used in the education milieu. For this reason, Maktab Perguruan Perlis, Perlis, one of the Teacher Training Colleges, proposed a Internet-Based Short Course System that will handles online short courses where teachers can access them anywhere and anytime. This study is proposed to develop a database-driven of an Internet-based short course to handle Data Communication and Networking for teachers to enhance their skill. Tlherefore the aim is to make learning more accessible, interactive, meaningful, student-centered, support collaboration and flexible. Upon completing the project, the Database Design Methodology and Web Development Methodology are used to build the system. Rapid Software Prototyping Methodology technique is used to develop a prototype. The MySQL Database, PHP, JavaScript and Apache web server are used to implement the system. The system model is a reference model to the institution's Internet-based short course system. During the development of the system, some problems and limitations were discovered and discussed. Finally some recommendations are made to overcome the limitations for the future enhancement and future work of this project.

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CHAPTER 1

INTRODUCTION

Internet-based courses can be explained as online courses that utilize the World Wide Web technologies as a scaffold to facilitate teaching and learning process. Being the most popular technology in Internet, the World Wide Web introduces new changes in teaching and learning. In today's knowledge-based economy, society needs people who can think critically and strategically to solve problems. Individuals must adopt in a rapidly changing learning environment, and build knowledge taken from several new sources and different perspectives. Today we must understand systems in diverse contexts, and collaborate locally and around the globe using new tools like the Internet (Reich, 1992). These attributes of learning contrast sharply with the low-level skills, content, and assessment methods that traditional ways of learning favor.

The development of sovereign learning skills is the major challenge facing higher education, because a student's success in college, and in the new knowledge economy, hinges in large measure, on the ability to master new knowledge outside the security of the classroom. Teaching individuals how to learn is the challenge faced by the nation as a whole as we negotiate the difficult, momentous transition from the Industrial Age to the Knowledge Age (Gifford, 1997).

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