Critique and Conscience of Society: A Case Study of Free Computing Courses

Lyn Hart
Hira Sathu

UNITEC Institute of Technology
Auckland, New Zealand

lhart@unitec.ac.nz

Proceedings of the 15th Annual NACCQ, Hamilton New Zealand July, 2002 www.naccq.ac.nz

ABSTRACT

In this paper, the authors describe how the NZ government's announcement of its strategy for building strong community relationships has been put into action at an Institute of Technology. The development of the concept for offering free computing courses by the School of Computing and Information Technology (SCIT), Faculty of Business, UNITEC Institute of Technology is discussed. The paper covers brief details of the market response so far. The paper also covers the analysis of the first enrolment database and the feedback response sheets returned by the students. The recommended changes in the planning and offering of future courses takes into account the outcomes of the data analysis. The authors intend to further investigate the affect of offering free computer based training on the enrolment for the regular courses at SCIT.

Keywords: Knowledge wave, free courses, IT education

1. INTRODUCTION AND CONCEPT DEVELOPMENT

At the 2001 Knowledge Wave Conference, the NZ Government announced its strategy for building strong community relationships and its prioritisation of innovation and growth. This government announcement has been translated into action by way of providing the New Zealand public an opportunity to gain more knowledge and skills in information technology. This became a key focus for educators like UNITEC Institute of Technology to develop concepts that would benefit the community at large. The inspiration for development of this concept was also drawn from other institutions offering similar courses.

UNITEC's commitment to meeting its social responsibility to the community became the basis for the Business Faculty's School of Computing and Information Technology offering free training to the public. The initial emphasis was to be on end user tools. This was expected to pave a way for other user oriented IT courses as the community at large acquired the basic skill levels. These changes along with others in the programme would be based on the feedback questionnaire received from students. The strategy for delivery so far has been to utilise:

- Computing labs at Mt Albert and Waitakere campuses
- Existing self-paced computer based training software applications
- UNITEC's senior BCS students as tutorial assistants
- Delivery of training sessions during weekends and evenings without disruption to mainstream classes and extending hours and times of public access during mid semester breaks and holiday periods.
- Prior enrolment was not necessary - the students could enrol when they came for their first session to keep enrolment logistics simple.

This paper briefly introduces the concept of e4Free training developed within the computing short course programme by using existing resources as a cost-effective solution and methodology. The paper goes on to examine the data gathered from the enrolment database and the student feed back questionnaire.

2. IMPLEMENTATION AND MARKET RESPONSE

The first offering of free computer based training courses 'e-4Free' was launched on 4 August 2001 and ran until 24 November 2001. The timings for offering these courses were from 5.00 pm to 8.00 pm Monday to Friday and Saturdays from 9.00 am to 3.00 pm. Relocations of existing labs, ITSC maintenance and closure of UNITEC over the Christmas holiday period, required the e-4Free programme be suspended until 13 January 2002. However, once back on track on 14 Jan 2002, hours were extended across both campuses from 9.00 am to 3.00 pm on Saturdays and Sundays and from 5.00 pm to 8.00 pm on other weekdays. The enrolments for the initial period of about six weeks in the year 2001 were 347 for the Auckland campus and 147 for the Waitakere campus. The popularity of the concept was proven by the enhanced demand for these courses even after a very short run.

3. THE CURRICULUM

The curriculum for the e4Free courses comprises 12 courses. The first two courses are Basic IT Concepts I and II. Upon completion of these two courses, participants have the knowledge base to sit the first test towards the International Computer Driver's Licence (ICDL). A further 10 courses consist of the introductory courses from the Microsoft Office 2000 suite of packages, beginner's courses for acquiring Internet skills and understanding and using email. Details of these courses appear in the Computing Short Course Brochure and the UNITEC website www.unitec.ac.nz

The curriculum is expected to be updated only as far as the changes in the software versions are concerned. Options to include any new basic IT tool/ package that is prevalent in the market at the considered point in time would be kept open.

4. DATA ANALYSIS

A few aspects have been explained here before elaborating on the data analysis. The staff provides tutorial assistance and do not teach as in the normal fee-paying courses. The ratio of staff to students is 1 to 24, twenty-four being the maximum capacity of e4Free students in a lab. The learning is primarily self-directed. For the data analysis this paper has considered the e4Free enrolment database for the year 2001 and the feedback data obtained from the questionnaires filled by the students towards the end of the courses. Each of these is covered in the subsequent subsections.

4.1 ENROLMENT DATABASE

This data covers the period from 10th of July to 1st November 2001. While the outcome for some of the fields could have been anticipated apriori, quite a few results varied from the norm for the existing continuing education programme (short courses) as discussed below.

4.1.1 GENDER ISSUE

Greater numbers of women have taken to IT training. The distribution of gender for all of the fee-paying short courses in 2001 is 55 percent for males and 45 percent for females. The e4Free course distribution for males was 37 percent and 63 percent for females. This is indicative of the desired outcome of proliferation of the IT education in NZ public by reaching out to those sections of the community who would not have considered IT education in the normal course offerings. Some of the reasons for this could have been time constraints and/or the financial requirements. The revised student feedback questionnaire is expected to elicit the real reason for this.

4.1.2 ETHNICITY ISSUE

An analysis of the e4Free data reveals that 32 percent of the enrolled were European/Pakeha, 38 percent were of Asian origin and 30 percent were from the Maori and Pacific Island communities. The figures for the fee paying short courses were 74 percent European/Pakeha, 20 percent were of Asian origin and 6 percent were from the Maori and Pacific Island communities. Comparing the above figures we notice that e4Free courses attracted greater attendance of students from the Asian, Maori &Pacific Island communities. Thereby, this approach to training reaches out to ethnic groups those are often difficult to get through to as regular fee paying students.

4.1.3 AGE ISSUE

The age wise analysis of the enrolments involved considering ages over four age groups for both the e4Free and the short courses. For the e4Free courses 37.6 percent were over 45 years, 30.4 percent were between the years 35 and 44, 21.3 percent were between the years 25 and 34, and 10.7 percent were between the years 15 and 24. For the short courses 24.8 percent were over 45 years, 25.9 percent were between the years 35 and 44, 34.2 percent were between the years 25 and 34, and 15 percent were between the years 15 and 24.

The above percentages reveal that there has been a significant increase in the higher age groups enrolling for the e4Free courses. On further analysis of the highest age group of over 45 years, we noticed that e4Free courses had 24.5 percent in the 50 years plus bracket while the short courses had only 10.7 percent in this range. In other words there was over a two-fold increase in students over 50 years of age enrolling for the e4Free courses.

4.2 QUESTIONNAIRE FEEDBACK ANALYSIS

The feedback has been extremely positive. The feedback considered here is separately for the two campuses. The significant aspects were the most satisfaction expressed for the response to initial enquiry and the tutorial staff approachability. Some concerns were expressed about the equipment used at MT Albert. At the Waitakere campus the tutorial assistance stood out. A common thread is that the study at both places has provided students with the basic IT skills.

5. CONCLUSION

There is a positive feeling with regards to the achievement of the aims of theses courses. The courses have been able to target the section of the community that has missed or is missing out on acquiring basic IT skills required for the “knowledge economy”. These courses have also resulted in some spin-offs. Students who have been attracted by the e4Free courses have enrolled for the fee- paying courses at the School of Computing and Information Technology. Possibly these courses act as an introduction to areas that are hitherto fore considered to be outside their normal aptitude. They obviously seem to provide the confidence to tackle more rigorous IT study.

A cursory study of the effect of these courses has revealed that the enrolments for the short courses have dropped. It is also intended to study the co-relation of the enrolments for the e4Free courses and the other fee-paying courses like BAC and BCS at SCIT and possibly other Schools in the Faulty and the Institute. This statistical exercise is expected to elicit information in respect of the change in the trend from the usual growth in EFTS at the Schools.

The participation on these courses has included significant number of unemployed, people from diverse ethnic backgrounds and women. All this is very much in conformity with the original aims and objectives of conducting these courses.

Impact Of Web Technologies On E-Learning: A Web Development Perspective

William Harvey

UNITEC
Auckland, New Zealand

william@unitec.ac.nz

Proceedings of the 15th Annual NACCQ, Hamilton New Zealand July, 2002 www.naccq.ac.nz

ABSTRACT

The technological advances and growth of the Internet and electronic media, as well as applications that have subsequently evolved over the past few years, have led to some interesting developments in the area of E-Learning. This has resulted in the academic sector and even students looking at the E-Learning environment as an option to supplement, or perhaps even replace, the traditional classroom environment as a new method to deliver papers/courses.

This paper looks specifically at the impact of E-Learning from a Web Development perspective, focusing on Web Development technologies that are currently required to produce effective course delivery, i.e. web-page automation, multimedia, database integration, etc. This will also include some of the problems/challenges that Web Developers face in developing online training facilities and the roles of the Course Developer and the Web Developer.

1. INTRODUCTION

A great deal of research is being done in the field of online learning, and no doubt this will continue as technological advances in communications technology and Internet multimedia open up new possibilities and further advances for creating online learning environments. Most of the research is done from a trainer/student perspective and not from a web development perspective. This is important because the two approaches cannot be separated any longer. No longer can a web developer simply create a set of web pages with hypertext links to documents and sell the website off as an online learning environment.

Today's demands require a fully interactive online environment where the student can navigate through a series of lessons that are structured in a logical, informative, interesting and fun way. Sawers and Alexander (1998) mention that an important criteria in the selection of a communication tool of E-Learning is simplicity, and that it has to be easy to use for the academics and the students. Shukla, *et al.* (1999) state that "it is well established that textual data when complimented by voice and video would bring alive an on-line learning process." However, to effectively utilise these features the web developer also has to have an understanding of how courses are prepared, taught and assessed.

Likewise, the course developer needs to have an understanding of web development technicalities in order to know how to plan and prepare the course material to optimise course delivery using the available