STUDENT READINESS TO LEARN VIA THE INTERNET

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ABSTRACT

Adult education is in a period of transformation. This transformation can be traced to the use of technology in learning which is forcing educators to review 'what they do …..and how they do it.' According to Sherritt and Basom (1997) the use of the Internet in the delivery of learning is the main catalyst of this transformation. Although the implications of the use of the Internet in adult education are not fully understood, it is apparent that the Internet heralds profound changes in ways of knowing and learning. By ignoring and not discussing issues surrounding the Internet's use in adult education, educators may risk being excluded from an educational metamorphosis that redefines adult learning for the beginning of the new millennium. This 'rethinking' of learning in the context of the Internet raises many issues. Some of these issues include lifelong learning, responding to learner demand, access, applying the technology to learning, initiating innovation, developing policies and procedures, and investigating collaborative approaches between public and private institutions. (Paine, 1997) This paper will focus on a discussion of these issues and provide the results of the OPEN Training and Education Network (OTEN) Student Technology Survey. The purpose of this survey was to investigate the attitude of OTEN students to on-line learning and to determine the expected demand for this type of learning and delivery.

Lifelong learning

Recent economic, social and technological change has redefined the nature of employment forever. Brown and Scase (1997) regard secure employment as a thing of the past. Industrial and organisational restructuring has resulted in the availability and continuity of work being increasingly uncertain. For workers to survive in this environment they need to be more flexible and adaptable. Brown and Scase (1997, p. 86) state that workers "require a broader portfolio of technical, social and personal skills than the more job-specific skills which were emphasised in the past." Workers need to continuously update and upgrade their skills and training to keep pace with the changes in the workplace and in society.

According to Kumar (1997, p.27) "in a fast-changing society, skills become obsolete before they are fully absorbed." Workers need to be learning all the time. This learning can be on-the-job or with a public or private educational institution. Many employers value credentials received from recognised educational institutions. However, the idea that credentials maintain currency for a lifetime of work is an outmoded belief. The challenge faced by adult education providers is to offer learning that is relevant to industry, up-to-date and of a high standard. Workers are aware that to compete successfully in the employment market the learning they undertake needs to be recognised and valued by employers. This learning may be formal, for example, gaining a credential or it may be informal, for example, learning from a mentor in the workplace. There is no doubt that the work environment is in a state of constant change. The only certainty in this environment is that for many adults learning must be ongoing. It must become a lifelong activity.

This shift to lifelong learning should not solely reside with adults taking responsibility for their continued learning. It also is the responsibility of educators to formulate and implement policy that encourages and educates adults, and especially children to value lifelong learning. If educators are serious about developing a culture of learning then the best place to start fostering this attitude is in the early years of schooling.

Responding to learner demand

This trend in continued learning has been facilitated by the introduction of technologies such as the Internet. Due to the increasing pressure of family and work commitments most workers have less time to devote to traditional modes of learning such as attending a campus for day or evening classes. Workers require a wider choice of learning options and more flexible means of accessing them. They also want more individualised and customised learning. This is where technologies such as the

Internet are positioned to deliver education and learning in a wide range of environments and locations such as at home and in the workplace.

Access

Although the Internet has many advantages for adults who want to pursue lifelong learning, it only advantages those adults who have access to the technology and who have the skills to use it. Elsden (1997) states that the use of the Internet has been dominated by the privileged, that is, those with better jobs, more money and education. However, this is changing, as technology becomes more prevalent in society. This perception of who has access to technologies, such as the Internet needs to be questioned and investigated.

Dorman (19##) states that the high cost of computer equipment may have deterred adults from accessing and using the Internet. However, in recent years equipment costs have significantly declined. A computer is an affordable piece of equipment that is found in approximately 42% of Australian households, which are nearly 3 million households. (ABS Report February 1998). In May 1998 14% of Australian households had access to Internet at home (ABS Report May 1998). This is further evidence to support the changing picture and pattern of computer and Internet use in our society.

In the late 1970s and 1980s many adults were fearful of using computer technology. However, with the proliferation of computers and technologies in the workplace and in society this fear has subsided. Many adults have access to technology at home and work and may be ready to be offered the chance of using this technology for learning.

Learning for adults with low levels of literacy has always been a problem. The Internet uses written text and images to display information. The high level of use of images could advantage adults with poor literacy. Educators could effectively utilise this combination of media to assist learning for adults with literacy problems.

Applying the technology to learning

The traditional way of formulating knowledge is enshrined in the teaching methods of our age. In Higher Education Institutions, particularly universities most teaching methods still adhere to the face-to-face lecture model. The prevalence of this method across most disciplines has legitimised and justified its use. The shared use of this teaching method by many adult educators has reinforced its authority and legitimacy as an appropriate way to gain knowledge in the world. Research by Alexander, McKenzie and Gleissinger (Albert, 1998) shows that many learners still associate real learning with having lectures. Although face-to-face lectures are still widely used in adult education, their use and privileged position is being questioned and challenged.

On close examination of what is happening in adult education the use of technologies such as Internet is becoming more prevalent. The potential of the Internet in adult learning is only just being realised and discovered. However, Alexander, McKenzie and Gleissinger (Albert, 1998) state that many educators have not thought through learning issues associated with using the Internet. Many educators have concentrated on merely producing web pages that are mainly graphics based with little or no textual content, or web sites that are dense with text and resemble on-line lectures.

Bates (1997) states that quality Internet learning needs to be properly instructionally designed. It needs to be packaged in an attractive easily accessible way, and include student and technical support. Alexander, McKenzie and Gleissinger (Albert, 1998) stress the importance of providing staff development in the use of the technology and technical support. Their message is that quality educational learning packages do not have to be state-of-the-art award winning productions. Learning can be delivered via the Internet in a cost effective, efficient way that does not compromise educational standards. Although McKenzie and Gleissinger's (Albert, 1998) research supports the view that face-to-face learning is superior to learning via the Internet, Internet facilitated learning is still in its infancy. They do provide many examples of the successful use of the Internet in learning.

Initiating innovation

Educators are accustomed to changes in learning content. However, the methods and equipment used for delivery have remained fairly constant over the years. The advent of computer technology has changed all that. (Ehrmann, 1996) Computer technology is constantly evolving and changing at a rapid rate. This does not automatically lead to improvements in learning methods and content. Educators face the difficulty of trying to successfully mesh content, learning and technology. There are many factors to consider in the combining these areas, especially for on-line learning. The technology should be reliable, affordable, easy to use and accessible. The learning should make allowance for varying learning styles, allow for learner interaction and cater for learners with special needs. The content should provide the learner with problem solving opportunities and scenarios. It should also fully utilise resources that already exist, for example, links to relevant sites on the Internet. For on-line learning Starr (1997) recommends using a template approach to the authoring of courses. A template in this context refers to different learning models. There needs to be a variety or diversity of learning models to provide consistency for teachers as well as learners.

Educators should clearly indicate to learners the level of hardware and software required to participate in the learning offered via the Internet. Starr (1997) emphasises that educators should ensure that their organisation has the internal technological capability to service learning via the Internet. Educators also need to ensure that administration procedures associated with on-line learning are functional and streamlined.

Educators need to provide adults participating in on-line learning with introductory courses to become familiar with the use of the on-line learning environment. This type of learning is different from the structured face-to-face learning, which is prescribed and directed by teachers in classrooms. Learners may need assistance in adjusting to the choice and freedom that on-line learning provides.

Staff also needs to be adequately trained and prepared for the introduction of new technology. It is important in training staff to ensure that they are able to use the new technology as well as easily change learning content. Staff should be made equally aware of an innovation's good and bad points. Staff needs to be able to deal with technology difficulties.

Enthusiastic staff members or staff with computing expertise initiated much of the early development of on-line learning. As these staff burnout or leave organisations other staff have to be encouraged to participate in on-line learning. These staff may require incentives and support to initiate computer-managed technological innovations. Paine (1997) advocates this as a positive way of changing, shaping and influencing teaching methods and practice.

Policies and Procedures

The success of the introduction of any innovation relies on strategic planning, policy formulation and the development of efficient and effective administrative systems. Strategic planning and policy development requires collaboration between educators, instructional designers and technology experts in an organisation. Gatliff and Wendel (1998) point out that success of policy and planning is dependent on all stakeholders in an organisation deciding upon outcomes, being able to communicate their views and concerns and sharing a common vision. Gatliff and Wendel (1998, p.31) also believe that stakeholders need to agree on such things as "what is to be taught, who is to teach, who is prepared to teach with existing technologies, which technologies should be used and how students can be best accommodated." Policies and planning needs to address the practical implications and procedures for learners and staff across an organisation. The process needs to be managed so that all stakeholders can have confidence in its success. Bates (1997) states that effective policies need to be put in place for on-line learners, particularly for those learners who have gone to the expense of purchasing computer equipment for the purpose of study. It is important to acknowledge that investment in on-line learning is not necessarily a cost saving exercise. Gatliff and Wendel (1998) state that on-line learning requires an adequate investment of resources for initial development and ongoing commitment. Depending on the components or model of on-line learning adopted it may be no more costly when compared with traditional methods of learning.

Sobski (1997) maintains that any planning for the use of the Internet must include provision for investment in staff in the form of training. This training should be in the use of the technologies and their use and application in an educational context. Staff need time and training to become comfortable and familiar with the technology. Changing and influencing professional educational practice does not happen overnight.

Those Educational Institutions that plan and deliver learning on the Internet in an ad hoc manner may end up with a mixed bag of learning products that vary greatly in educational quality. This variation in quality and product may harm even down grade the image of an Educational Institution as a provider of quality education and training. Educational Institutions need to convince adult learners of their proficiency in delivering learning on the Internet. This is vital to retaining and attracting adult learners. The use of the Internet has the potential to expand opportunities for non-traditional learners to participate in higher education. Educational Institutions run the risk of losing many potential learners by not having a presence on the Internet. The Internet should be seen as a significant medium and opportunity for generating new business.

Kumar (1997, p.34) points out that Higher Education Institutions "now have to compete with an increasing range of specialised organisations that, based on the new information technologies and with a more precise brief, can offer equally good or better services to government and business." This theme of competition between the private and public sphere is also emphasised by Coffield and Williamson (1997, p.5). They warn that educators, particularly those in the public sphere need to take control of the educational direction they wish to pursue in regard to learning on the Internet, "as otherwise their future will be defined for them by political or business elites."

Collaborative approaches between public and private institutions.

Paine (1997) talks about the formation of new partnerships between private and public organisations. He states that in Britain funding for new initiatives is obtained from the private sector. This finding is used for joint public/private projects. He advocates this a successful approach to bring in money into the public sector.

The idea of forming partnerships, sharing services, equipment and costs may provide savings or reductions in costs to educational providers and learners. Joint agreements between public and private organisations may be a common occurrence in future. These agreements may be on a project by project basis or based on the delivery of components of learning such as providing the technology equipment and know-how or the educational know-how.

THE OTEN STUDENT TECHNOLOGY SURVEY

RESULTS & CONCLUSIONS

The aim of this research was to investigate the attitude of OTEN students to computer-based learning and delivery and to determine the expected demand for this type of learning and delivery.

The research involved a postal survey in the form of a self-administered questionnaire.

The sample was stratified according to Faculty area. 2,000 students who enrolled with OTEN in Semester 1, 1998 who were working were randomly selected from the four Faculty areas.

Of the 2,000 students sent questionnaires, 730 replies were received. This is a response rate of 37%. Neuman (1997) states that " a response rate of 10% to 50% is common for a mail survey." Most researchers consider anything below a 50% response rate as poor and unrepresentative of a population. However, it can be argued that the profile of the respondents in the survey closely matched those of the OTEN student population for sex, age, and geographical area. The three Faculty areas of Production, Services and Business Studies were representative of the OTEN population. However, the Access Faculty was slightly under represented.

According to the findings 79% of the respondents had an income of $40 000 or less. This supports the view that access to computers is not restricted to the privileged, that is, those with better jobs, more money and education. The profile of the average computer user is changing and includes medium to lower income earners.

Sixty percent (60%) of respondents are aware that they can access computers in TAFE NSW colleges; however, few use them. Many students, particularly country student may not access these computers as they are too far from the college. The number of computers available in each college may vary. This may restrict use.

A large proportion of students (73%) has access to computers at home. Although higher than the Australian figures of 42% of households with computer access, it must be remembered that the OTEN students are studying and are committed to learning. 38% of OTEN students have access to the Internet at home. This is a higher percentage when compared with the 14% for Australian households. 40% of OTEN students indicated that they had an Internet address. 33% of students stated that they would pay for an Internet connection for study purposes.

One hundred and ninety nine written comments were received from respondents. From the comments received many OTEN students are ready to access computer-based learning, particularly via the Internet. Many students indicated that to support on-line learning that they would like an introductory subject about the Internet included in on-line courses. The trend for access to computers and the Internet at home, at work, and in society to increase will continue.

Almost 60% of OTEN students have a Pentium PC. Of those without a Pentium, students were divided over whether or not they would upgrade their computer hardware for study purposes. The majority of students had access to the common software packages of Word, Access and Excel. 34% of students stated that they would be willing to upgrade software for study, 45% stated that it would depend on cost. This shows that students are willing to think about upgrading computer hardware for study purposes.

58% of OTEN students stated that they would use the Internet to gather information. This is the most widely known way to use the Internet, that is, to access information. Many students stated that they would use it to interact with a teacher, that is, to access teacher support via email. Many other students would like to access their course notes on-line and submit assignments via email. The main uses of the Internet at present are to send and receive email and access information via web pages and sites. Therefore, it is not unusual that the OTEN students have cited uses that have been popularised over the last few years. With the introduction of learning via the Internet student choices for use of the Internet may change over time depending on their exposure to on-line learning. It is positive that students do want to use the Internet for learning.

When asked how they would like OTEN to deliver computer-managed courses most OTEN students indicated that they would like a copy of the materials on computer disk. Many students would like contact with their teachers via email and many would like interactive materials made available via CD ROM. Again this shows that students want to experience media other than print in the delivery for their courses. These results indicate that students are ready to experiment with computer technology for learning.

The survey results indicate that OTEN students are open to the concept of learning via the Internet. According to many of the written comments many students are ready to experience and experiment with this type of learning. These students have a reasonable level of computer technology in their home or at work and many have Internet access and an email address. There are some students who are concerned about the cost involved. However, overall the comments received from students were that this type of learning was a good idea. They want to find out more about this type of learning and are asking what OTEN has to offer.

Summary

Traditional methods of teaching and learning still hold a central place in the development and progress of knowledge; and understandably there is some resistance to let go of the certainty and uniformity that these methods claim to give. However, it is inevitable that new methods of learning such as using the Internet will continue to be improved and refined. The Internet is a sophisticated tool that educators can use to facilitate learning. Although the implications of the Internet to adult education are not fully understood, its existence cannot be ignored. Educational Institutions need to embrace this computer technology in the knowledge that it provides a new way of knowing and learning. The challenge for educators is to utilise it in the best possible way to enhance learning.

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