

Learning through iDTV – results of t-learning Study

Peter J. Bates

pjb Associates
52 St Andrews Way
Ely, Cambridgeshire, CB6 3DZ
UK
pjb@pjb.co.uk

Abstract

This paper describes initial conclusions and recommendations of a major global study into the potential use of the various interactive TV solutions for increasing learning opportunities in the home. It describes why it is increasingly important for policy and decision makers to consider the role that interactive TV might have for learning – if they are to meet targets for widening participation in learning. The final report due to be completed by the end of March 2003 will also help educationalists, IDTV developers and service providers understand which aspects of interactive TV are likely to be of most value for increasing learning opportunities in the home. Initial findings suggest the developments towards personalized TV are likely to be of more value than service offerings through broadcast/scheduled TV.

Keywords

elearning strategy, interactive TV, personalized TV, educational broadcasting

Introduction

In the emerging era of Lifelong Learning - learning will take place in wide variety of context and locations in which informal and non-formal learning will be as important as formal learning. There is some evidence to suggest that nearly one third of adults say they have not participated in any formal learning since leaving compulsory schooling. Lifelong learning initiatives should therefore not only encourage increased participation of those already engaged in learning, but encourage wider participation of those not activity involved in learning.

Current ICT policies are not widening participation in learning

The use of ICT (information and communication technologies) primarily in the form of Internet-enabled computers and training in the use of them is increasingly being used as a vehicle within government policies to increase participation in learning. Initiatives take the form of increasing provision of Internet-enabled computer access in schools, colleges, local learning centres, dedicated local ICT centres and in the form of providing learning opportunities through the Internet. However, some evidence is

beginning to emerge suggesting that although these initiatives may be increasing participation of those already engaged in learning they are not widening participation particularly amongst those who are not actively engaged in learning.

The penetration of internet-enabled computers in European households also appears to be levelling out at around 40-60%. Even specific initiatives that encourage a community to get “wired-up” and offer low cost computers and training – are not increasing uptake more than around 50% of households. There is, therefore, a need to start looking at alternative solutions to overcome the emerging so-called “digital divide” and find alternative ways of encouraging more people to become more active in learning.

Alternative Solutions needed – potential of interactive digital TV

This means looking towards solutions and devices that people are familiar with, and feel comfortable in using, whether, in their own homes or on the move. Increasingly, opportunities for informal learning will also be a means to encourage and draw people into active and engaged learning that might lead onto more formalised learning. Television, future personal

devices like mobile telephones and amongst younger people, games consoles are all familiar devices that have the potential to also offer new learning opportunities in this way.

The one-year global "t-learning study" due to be completed in March 2003 has been looking at how interactive digital TV can be used to increase learning opportunities in the home. The television is a familiar and reliable consumer device with around 95-99% penetration in European households. It is also perceived to be a source of learning. However, in its more traditional role it has tended to be used in a passive viewing mode.

As more households have access to programmes in a digital format interactivity is becoming possible. This is enabling viewers to select additional information and video-clips whilst watching about a particular programme and take part in interactive quizzes and other simple interactive "edutainment" activities. TV-based interactive betting, banking and shopping are already possible. Digital TV solutions in the form of broadband TV (through digital cable and DSL technologies) and with the use of home-based personal digital video recorders (PVRs) are starting to provide more personalised TV where the viewer has control over what they watch and when they watch.

Personalised TV could lead onto more personalised learning

Personalised TV offers the biggest potential for increasing learning opportunities in the home. Through broadband TV content can be accessed on-demand. Alternatively through satellite and digital terrestrial TV, learning content can be ordered and stored on a PVR for usage at a convenient time. There is potentially a major market for leisure learning through these means that is starting to take off in North America, but has yet to be realised in Europe. Critically, more informal leisure learning activities are starting to be seen as a means of increasing widening participation in learning. Personalised TV in the form of Broadband TV is also starting to enable people to become more engaged with their local community including existing learning institutions. It is also providing them with access to public service information like healthcare that can also lead on to increasing learning opportunities.

However, access to digital TV varies widely across Europe with more than 40% of UK households having access compared to around 8% for Germany and about 3% for Greece. The European interactive digital TV market is still very immature consisting of a few service providers - most of which appear to have little interest in the education and training market. Yet there is a huge potential for increasing learning opportunities into the home as an alternative and a complementary solution to using an Internet-enabled computer - through an accepted video-rich environment like the TV.

Further Research

Based upon the initial findings of the t-learning study further research is needed to explore this medium through large scale trials in order to research and better understand the sociological, socio-economic, cultural and motivational factors that enable individuals in their own homes to move from participating in informal learning to more active and engaged formalised learning. There is also the need to research, which are the most appropriate organisational, business and learning models for creating new learning opportunities in the home.

Technology research needs to focus on the personalisation systems and tools; developing the tools to more easily metatag content based upon emerging learning object standards and the development of tracking systems all to cater for the diversity of personal learning styles and enable learning content to be easily retrievable through Personal TV systems.

References

- Bates, Peter J. November 2002. t-learning Consultation Paper. pjb Associates <http://www.pjb.co.uk/t-learning.htm>
- Bates, Peter J. 2002 Digital TV and Video in *Adelsberger, H.H. , Collis, B. Pawlowski, J.M. editors Handbook on Information Technologies for Education and Training, Springer*
- Bates, Peter J. 2002 Interactive Personalised TV for Learning in the Home *usableTV Issue 2*
- pjb Associates July 1999 Development of Satellite and Terrestrial Digital Broadcasting Systems and Services and Implications for Education and Training - DGXIII European Commission Study <http://www.pjb.co.uk/dbtfinal.htm>

