

ON-LINE LEARNING USING BROADCAST MATERIALS

Case study of the BBC On-line Learning Pilot programme in Women's Health

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Introduction

This paper is based on a 1999 evaluation study of the BBC On-line Learning Pilot Programme in Women's Health which was jointly sponsored by the BBC and the Department for Education and Employment. The study involved 4 learning centres based in UK Further Education colleges and 128 learners.

The BBC On-line Learning Pilot Programme in Women's Health is an innovative example of how adult learners in different locations can gain access to broadcast media-originated Web-based learning materials with national accreditation. It aimed to attract new learners back into education using the "hook" of broadcast materials via the Internet. The aim of this qualitative study was to highlight issues about the nature of learner and tutor experiences of BBC On-line learning, discuss the potential of this form of learning for meeting adult learning needs, how to develop good practice in the use of broadcast materials for on-line learning, delivery, costing issues and the opportunities for further development.

BBC Education produces a wide range of educational support materials designed to provide adults at home with more information about broadcasts and details about how and where they might take their interest in a subject further, and recently has developed a considerable number of interesting and comprehensive web pages specially designed to support its output and enable the viewer to extend their understanding of what they have seen. This BBC On-line Learning Programme in Women's Health was developed to explore ways in which links could be made between BBC broadcasts, its web sites and digital media to create learning materials. It provided a web-based on-line course which brought together pages from the BBC Education Health site to explore health issues that concern women.

The impact of broadcast media within on-line learning

Broadcast media can be seen as part of multimedia technologies now available to educationalists, particularly now that learners will have access to interactive multimedia learning facilities in their own homes. Many of these facilities are likely to converge with on-line computer systems and the internet. Bates (1999) in an EU study, assesses the impact of interactive TV and internet-based learning services to the home, and identifies particularly the potential of personalised TV services which enables set-top boxes to have memory capability to download multimedia content and video on demand.

Broadcast media has always been attractive to educationalists through its ability to capture the interest of viewers and to stimulate them into extending their understanding of what they have seen. There is also the attraction that broadcast media provides readymade "content" as the basis for on-line learning and is high quality. The richness of broadcast media content creates exciting possibilities for teachers to design more authentic learning material which has a visual immediacy and dynamism not possible with computer-mediated communications. However, it is not at all clear how broadcast media will impact on education in terms of the types of applications it offers, nor how this new capability will be integrated into current practice of on-line learning nor how broadcast material can be made readily available to educators. Broadcast media is successful as a mass medium but usually needs considerable tutor facilitation to work as an educational medium. It has proven success as a "hook" for attracting and motivating learners, but not necessarily supporting learning achievement. It may well be that in the near future educators will be able to gain direct access to broadcast learning space through the proliferation of cable and satellite channels and use this capacity to design and deliver on-line learning and create access to learning in new and innovative ways.

Focus of the evaluation

It was agreed with the programme stakeholders that the principal scope of the evaluation would be the learner/tutor/materials/technology and learning centre interface as experienced by the participants in the pilot programme. There would be a focus, in particular, on how learners, tutors and learning centres managed the interface between the provision of the BBC learning materials on the one hand and the use of these materials in learning scenarios on the other hand. The use of the BBC learning materials would present particular challenges to learners and tutors which would raise educational and technological issues and would result in the identification of new needs on behalf of the learners and the emergence of different delivery models of on-line learning.

Concepts of on-line learning

In this study we are using on-line (or "networked") learning as an umbrella term to describe learning that occurs over electronic networks such as the Internet, the World Wide Web and digital media. There are many configurations of practice of networked learning and for different purposes.

Mason (1998) in identifying on-line course models refers to an "integrated model" which brings together collaborative and group activities with learning resources. This is likely to be of most significance to adult educators considering the use of digital media for learning.

This form of learning is sometimes known as networked collaborative learning (McConnell 1998) since it emphasises the networking of learners and resources together and on social collaboration within a learning context - building a learning community.

The development of pedagogic models for on-line adult learning implies a re-examination and re-interpretation of contemporary adult learning practice to address a variety of issues concerning the process of adult learning and the relationship between the adult learner, those providing the course and the on-line learning environment. One of the educational issues in the development of personalised TV and broadcast materials for on-line learning is that the learners (or "viewers") will be on their own at home and likely to experience

on-line learning as individuals rather than part of a group. Good practice in adult education focuses on working with learners in a "social" relationship that supports:

- the experiences, backgrounds and skills of the learner
- the wish amongst adult learners to share their ideas and experiences with each other

The current interest in delivering adult learning courses via ICT, the Web, the Internet and digital media is in danger of being driven by the technology and what it can offer and deliver, rather than being guided by a grounded understanding of the pedagogical requirements of adult learning practice (McConnell,2000).

The rich diversity of networked technologies can, however, be harnessed to create a learning context where our understanding of adult learning is foremost in the design of any ICT-based learning event. Central to this is the need to incorporate opportunities for learners to converse, discuss and collaborate amongst themselves by the use of a variety of computer mediated communication tools and systems. The development of a sense of 'community' and belonging to a socially oriented group are basic requirements here. What does this mean for adult learners using ICT as the means to communicate with their peers?

The Networked Community

In conceptualising the meaning of community in cyberspace, it is possible to draw on existing definitions of community and contemporary Western thinking about communities, in order to try and understand what a networked learning community may be composed of. Several writers have tackled this issue (see Fernback, 1999; Smith & Kollock, 1998). In a review of the current literature as it relates to computer mediated communication (CMC) environments, Fernback (1999) offers three possible conceptions which can be used to help understand the nature of 'community' in on-line learning environments :

- **community as place** : networked groups can be viewed as communities that meet in cyberspace. Networked learning environments are places where the community of learners can develop. They have a unifying power to hold communities together. The social relationships possible in networked learning environments help participants form a view of themselves as a thriving community.
- **community as symbol** : networked learning communities have a symbolic dimension : participants give the community meaning, and create the community through their interactions and through their norms and values. This gives them a sense of identity, a place where meaning exists.
- **community as virtual** : in any context it is argued that communities live in the minds of their members : they are imagined. No less so than in networked communities who might be distributed across a continent or the globe, but to their members a community exists because they think it exists. Webs of personal meaning and relationships, and authentic discussion over long periods of time are indicators of the existence of community (Rheingold, 1993).

The socially constructed spaces of virtual learning environments are places where learners can meet to develop their sense of identity, common goals and community. However, crucial to this is that learners must feel empowered within these environments, that they are allowed to be active in using the resources available to them and that the learning content is authentic.

Alongside this desire to develop community is a theoretical view of how learners learn in these social environments : social constructionism. Salomon and Perkins (1998) focus on the debate around learning as something that takes place in the individual's mind, where knowledge and skill is acquired as discrete, transferable entities; and learning which occurs in collective, participatory settings of "active knowledge construction emphasizing context, interaction, and situatedness" (Salomon and Perkins, 1998). Four meanings of what can be termed "social learning" are elaborated which can form the basis for the design and implementation of on-line learning in adult education contexts:

- **social mediation** : here a person or a group helps an individual to learn.
- **social mediation as participatory knowledge construction** : here the focus is on participation in the social process of knowledge construction.
- **social mediation by cultural scaffolding** : here the emphasis is on the use of tools in mediating learning.
- **the social entity as a learning system** : the focus here is on learning that occurs in groups, teams and other collectives.

These four perspectives form the basis for a critique of a sociocultural perspective on learning, and of how the individual and social might relate. By focusing on the situated versus the cognitive, and the social versus the individual dimensions of learning, we can ask how individual and social learning relate to one another, and how these can be used to contribute to the development of the learning community. Key questions for adult learning practitioners are :

- in what ways is individual learning less or more socially mediated learning ?
- how does the distribution of learning become manifest and managed within a group ?
- what is the relationship between these two aspects of learning (individual and social) : how does the one support the other (as Salomon and Perkins, 1998 hypothesise they do)?
- is 'community' possible in networked learning or broadcast mediated environments? Our practice and research suggests the answer is "yes". However, a key question is how this can be achieved.

Focus and methods of the evaluation

The aim of the action research methods used in this evaluation study were to encapsulate key aspects of learner and tutor experiences. Evaluation data was collected by questionnaire, interviews and learner survey. The learning centres were expected to give advice to learners, support learners, facilitate contact between learners, provide technical support and advice and guidance. One of the evaluation findings was that the circumstances in which learners were recruited very much affected individual learning outcomes since learners recruited on-line are very different to those recruited traditionally.

Learner experiences

In general learners reacted positively to the course which related to the fact that learners can see that on-line methods of learning have great advantages for adult learners. In particular, they can see that on-line learning can make learning more accessible, particularly overcoming barriers of time and place:

'The Internet can provide 24 hours per day education at home. No excuses for not continuing our education now! It's up to you'

'BBC On-line learning is excellent for widening participation and inclusive learning but wider publicity and marketing would be required'

'This On-line learning is an excellent idea and easily achievable by anyone with a little knowledge of the Internet. Support throughout from the tutor was excellent and absolutely necessary.'

'I think on-line learning could become vital for a great number of people - the disabled, those seeking work-related courses who want a better job and have limited time. ENDLESS!'

Surprisingly, learners did not experience any difficulties in gaining access to workstations nor in accessing the Internet. The technology infrastructures now available in colleges and learning centres have advanced considerably in the last two years. They provide a stable and consistent technology platform on which to deliver on-line learning. Those learners accessing the course from home or work had many more technical difficulties for which technical support was needed.

A number of learners complained that the course was "boring". This tended to be those learners who did not have any group communication provided either with the tutor or with other learners. The Web course site had an over-reliance on text-based information with limited interaction.

'I found this course to be quite boring and it took a lot of time to read the articles before answering questions.'

'We received lots of help from our tutor at college, but most of our class found the pilot boring as it was quite long. Some of the fact sheets were brilliant and I printed some off, but the weakness was too long pages which made people give up.'

'I think that this course makes you aware and understand topics like breast cancer a lot better. Some of the topics make me think again. The only weakness that I found was the amount of time it took to read each topic through.'

The awards of tokens and the opportunity for accreditation was motivational. Basic skills learners found reading text information too difficult. A number of learners wanted to have a more thorough introduction to using the Internet. This was apparent because a number of learners stated that their reason for taking the course was to gain an understanding of the Internet AS WELL AS to learn more about Women's Health. This suggests that learning about the Internet should be embedded within a course context.

Some of the learners wanted to follow-up particular Women's Health topics in greater depth than was possible through the on-line course and did this for themselves with the support of the on-line tutor by using the Web Board facility provided by the College to discuss their own experiences and to paste Web site links which they had individually found. The ensuing group discussion resulting from this then became part of the learning material of course. This was an example of an effective learning community. Only one centre effectively provided group communication which was appreciated by learners:

'The course's main strength was the college tutor who continued to encourage, assess, assist and sort problems out as we progressed. This made the group feel close, although participants never actually met on a face-to-face basis.'

'A key to the success of a programme like this is the tutorial and group support. The group interaction of this course was motivating'

'I would have benefited from the feedback and support of other students. If I did another course like this, I would be looking for on-line contact with others.'

The wide variation in the experiences of learners was partly because they had different needs and expectations, partly because of the differences in the way learning centres delivered the course, and partly because the on-line course in its current form needs further work to make it interactive.

Tutors' experiences

The tutors were very similar to the learners in their response to the course, in that while they were enthusiastic about the course, they could see many ways in which it could be made more effective. Apart from one centre which delivered the course as a distance learning on-line course, tutors chose to run the course either as an "add on" or as a course in its own right and did not change their methods. They expected staff development to help them with developing new methods. Although committed practitioners, their limitations in understanding how to adapt their role for on-line learning were as a result of not having had the opportunity for staff development. Some of the tutors' difficulties come from the fact that the organisation and management of on-line learning in learning centres is very much seen as a technological rather than an educational activity.

One tutor facilitated group learning and discussion with the help of the College who set up a course Web Board - this was an electronic notice board which provided some space for social interaction between learners and some space for group discussion on specific topics enhanced by additional Web material found by both learners and the tutor. She was able to encourage learners to communicate and collaborate with each other - effectively creating an on-line learning community. However, this approach created an unacceptable workload for her, and her on-line work was not recognised by her managers. The other tutors were aware that group communication was important for the course but did not know how to facilitate this.

The tutors particularly valued the tracking system in the programme which enabled them to follow progress of individual learners, though they did comment that it sometimes took an unacceptably long time to access learner results.

Conclusion

This example of On-line learning demonstrates that use of broadcast materials via the Internet can attract and motivate new learners. However, it also creates new challenges for educators and broadcasters to develop innovative and appropriate multimedia and pedagogic design methods which fully capitalise on the advantages of this medium and embed good adult education practice - particularly the creation of learning communities.

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