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ABSTRACT

The use of information and communications technology (ICT) to facilitate easy access to lifelong learning for all is one of the central tenets of the United Kingdom (UK) government's drive to establish a more inclusive learning society. Advocates have highlighted the need to free learning from the traditional confines of educational institutions and to foster instead a culture of lifelong learning based on convenient access to resources and materials through technology. The creation of "virtual colleges" in the UK has been portrayed as one means of widening access to learning opportunities for those excluded from participation in lifelong education. A study asks whether technology is really capable of widening participation in adult learning; whether technology introduces problems as well as solving them; and how research can be conducted. Using existing research and surveys, the study found that initiatives such as the Digital College of Wales face major obstacles to registering those already excluded from learning because a majority of those people do not have computers or access to the Internet. Those who benefit from the virtual college tend to be young, white, male, urban, and middle class, the same group who has benefited most from traditional learning. Besides barriers of access, nonparticipants are also constrained from participation by family influence, another barrier not easily overcome by digital technology. In addition, it is not clear whether digital technology can do more than merely transmit information, and therefore it may not lead to better reasoning skills and increased participation in life. Therefore, it can be seen as rational for an individual to decline to participate in this form of lifelong learning, although government policy prescribes it as a good for all. The study concludes that, at present, those who stand to gain most by digital learning technology are the providers and special-interest groups. (Contains 33 references.) (KC)

Researching the role of digital technology in widening participation

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The use of information and communications technology (ICT) to facilitate easy access to lifelong learning for all is one of the central tenets of the UK government's drive to establish a more inclusive 'learning society' (see Gorard and Selwyn 1999 for a fuller policy analysis). Advocates in the UK have highlighted the need to free learning from the traditional confines of educational institutions, and foster instead a culture of lifelong learning based on convenient access to resources and materials. This is seen as a new way of combating social exclusion (see Selwyn and Gorard 1999). Moves are currently being made to provide technology-based learning to all sectors of society, via the predominantly schools-focused National Grid for Learning, the People's Network of libraries and museums, and various digital and virtual college initiatives such as the *Coleg Digidol Cymru*. It is intended that the key post-compulsory components of this drive will come under the umbrella term of the University for Industry, linked in turn to the registering system of Learning Direct.

However the role of technology in widening participation in adult lifelong learning remains largely untested. Many in government and even in education, distracted perhaps by the allure of the technology concerned, may have tended to treat these new media as relatively unproblematic in their impact. In this paper, we take a more detached view and ask: whether technology is really capable of widening participation in adult learning; whether it introduces problems as well as solving them; and how we can set about researching these questions?

The virtual college movement

The creation of 'virtual colleges' in the UK has been portrayed as one means of widening access to learning opportunities for those currently excluded from participation in lifelong education and training. The University for Industry (Ufi), its Welsh arm Coleg Digidol Cymru, and associated initiatives, while embracing the economic imperative for lifelong learning, have also pinned their success or failure on their ability to overcome traditional barriers to accessing adult learning opportunities. Our study has begun examining these claims in the light of current knowledge about the characteristics of non-participants and the barriers that they face. It is suggested that the application of technological fixes to underlying socio-economic determinants may solve some problems, but create others, and leave the majority unaffected.

ICT is seen by many as a technical solution to the barriers of time and space, and travel to and from an institution. The recent ETAG report had this to say:

Modern information and communications systems, including digital developments, present both opportunities and threats in adult education. ICT can minimise the constraints of time and space: people can learn or gain information about what is available, whenever and wherever they wish – *providing they have access* to modern technology and the confidence to use it (ETAG 1998, p.30, author's emphasis).

Unfortunately, one of the most obvious barriers to participation is cost, and it is not immediately clear that the digital movement will eliminate rather than simply alter this. The current non-participation of many of those excluded can be explained, at least in part, by the relatively higher costs for poorer groups whether defined by unemployment, low-wages, occupational class, gender or area of residence (Maguire et al. 1993, Hand et al. 1994, NIACE 1994, Sargant 1996, Shackleton and Walsh 1997). The cost of equipment, communication and insurance to participate in learning digitally is unlikely to attract many such newcomers. Where facilities are provided institutionally free at the point of delivery (in libraries perhaps) the problems of transport and other institutional barriers remain. So it is with many of the situational and institutional barriers to learning (see typology in Harrison 1993). Technology alters but does not necessarily overcome them, and it cannot even begin to overcome what may be the greatest barriers of all - the dispositional ones (see below). In the short term at least, the role of technology in widening participation may be far less than the advocates of technical fixes suggest.

Further evidence for this tentative prediction is provided by a recent NIACE survey of adult participation in learning, which produced a boosted sample of 483 respondents in Wales. These results form a proportionate part of the overall UK analysis, as described in Tuckett and Sargant (1999) for example. Although the survey did not include a question about access to digital television, it must be assumed that such access is generally very limited across the UK at present. When digital access becomes more common it is already clear that technical problems will remain for those resident in sparsely populated areas, or in awkward terrain such as the mining valleys of South Wales. Figures for access to other forms of Information and Communications Technology (ICT) appear in Table I. These show that ownership of PCs, while larger than access to computers at work, amounts to only one third of the population of Wales. Since it is already known that a large proportion of computers in homes do not have the capacity to access digital information via the world-wide web (www), it is not surprising to discover how few people have access to the internet (Selwyn 1999). Of course, these proportions will change over time, but two conclusions appear obvious. First: initiatives such as the Digital College of Wales face a major obstacle in trying to register those currently excluded from adult learning. Second: even when access patterns change, so will the technology required *for* access, so it is likely that many of those already excluded may still be playing 'catch-up' for the foreseeable future.

Table I - Access to ICT in Wales 1999

	At home	At work
Telephone	91	41
Computer	33	26

Internet	13	19
None of these	7	53

It is becoming increasingly clear, except perhaps to policy-makers, *who* the current non-participants are. There is reasonable agreement across different research and interest groups as to the nature of current non-participants in post-compulsory education and training (Tight 1998). Recent government-sponsored reports, subsequent green papers, and academic studies list the unemployed and others on low incomes, the unskilled and unqualified, ex-offenders, part-time or temporary workers, those with learning difficulties or low levels of basic skills, and some ethnic groups as being the least likely to participate (Fryer 1997, Kennedy 1997, DfEE 1998). Increases in extended initial education and training since 1945 have reduced the appearance of a 'two-track' system of education in Britain (Gorard et al. 1998a), but these changes do not apply to adult learning. If extended initial education (apprenticeship, FE, HE etc.) is ignored then women and older people are much less likely to be adult participants in learning (Gorard et al. 1999a). It is therefore these groups within society that the virtual college movement will need to include if it is to be successful in its own terms.

The culture of ICT, on the other hand is young, white, middle-class and male; precisely the narrow attributes of the traditional adult learning base the government are so keen to move beyond. Many of the technologies used to deliver learning (the Internet etc.) are not necessarily dominant or familiar technology with the working class, older, female, ethnic learner. Access to computers, both at home and at work, is significantly more common among men, occupational classes A and B, those who left full-time continuous education (ftce) later, and with higher qualifications (Table II). Access is less likely for those aged 55 or more, retired, unemployed and those otherwise not working (Table III). These characteristics have already been identified as more likely to be those of lifelong learners and non-participants respectively. In confirmation of this according to the recent NIACE figures, access to ICT is highest among those currently participating in a learning episodes, and markedly lower among those who have never participated since leaving school.

Table II - Differential access to computers

	all	male	age 17-19	class AB	ftce 21+	degree	current
Home	33	38	49	60	61	58	57
Work	26	31	44	51	51	54	54

Table III - Differential access to computers

	all	age 55-64	age 65-74	class E	ftce 16	no qualif	non-partic
Home	33	28	7	12	24	13	17
Work	26	14	1	12	15	7	7

The role of 'barriers'

There must anyway be considerable doubt about the actual role of 'barriers' in preventing access to adult learning opportunities. Evidence is mounting that non-participants in formal educational

episodes are not particularly deterred by traditional barriers such as time, cost, travel and lack of initial qualification. This evidence comes partly from the role of long-term socio-economic background characteristics, especially the influence of family, in creating a learner identity which does not view current opportunities as appropriate, interesting, or useful (Gorard et al. 1999b). Evidence also comes from a model of two separate sets of determinants for extended initial and later learning respectively (Gorard et al. 1999a), and from the accounts of widespread informal learning for which barriers are, by their very nature, less relevant (Gorard et al. 1999c).

These earlier doubts have been confirmed to some extent by the results of the recent NIACE survey. When asked why they did not take part, or plan to take part, in learning, the non-participants replied as summarised in Table IV. Despite differences in detail, the consistency of the total for the overall survey and for Wales is remarkable. Nearly two-thirds of these respondents reported no actual barrier to their participation, suggesting that their patterns of behaviour would remain unaffected by any initiatives to ease their entry back into formal episodes. Of course, it is always possible to doubt the realism/accuracy of these responses, and to suggest that virtual colleges or community programmes could whet their appetites again. However, such a suggestion (i.e. doubting the accuracy of responses) can be a two-edged sword and not one likely to find favour with the survey designers. In summary, this recent survey confirms the prediction of Titmus (1994) that there is a substantial sub-set of the population who are 'beyond all attempts to reach them' (see also Harrison 1993, McGivney 1993).

Table IV - Barriers to participation

	no barrier	no interest	too old	other	Total
UK	17	27	15	4	63%
Wales	9	22	15	17	63%

[other: includes 'don't know', 'I already know all I need', and 'haven't got round to it']

To some extent this rather depressing conclusion can be tempered by consideration of the nature of the opportunities on offer in Wales (Gorard et al. 1998b), and the policy of National Lifetime and Training Targets (which are unaffected by informal learning however substantive in nature). Much lifelong learning policy is prescriptive (Tight 1998). Non-participants are often blamed for their situation, and threatened with exclusion, since the alternative of admitting the existence of socio-economic determinants for non-participation might require a totally different, and rather more expensive, government programme. The prevailing view is that people *ought* to participate since it is good for them, but this shows a form of historical amnesia. The current emphasis on formal vocational education and training, and on learning as a positional good (Keep 1997) thus ignores the emancipatory, individual and radical nature of the original proposals for lifelong learning, on whose rhetoric current policy is justified. A compulsion to train and retrain for a flexible 'careership', or to prevent the damage caused by social exclusion may benefit those in power and meet the requirements of the productive system (Furter 1977, Johnson 1993), but if nearly a third of the population do not wish to take part after formal schooling it is just possible that the problem lies in the provision and not in the non-participants. As well as leading to economic competitiveness (perhaps) and social mobility (probably), education is nearly always a genuinely transformative experience for an individual (Lewis 1993), and one that impacts on the local community. Learning should not therefore be viewed as an escape route *from* anything, but a normal part of an accomplished life in a democratic society (Rees 1997). Viewed in this way, it is not clear that the experiences offered by the virtual college movement, which is of necessity based on a model of information transmission, can be genuinely educational, or that they *can* lead to better reasoning skills, creativity and the ability to value divergent cultures claimed by Roll (1995, see above). Given these severe limitations, it may therefore be seen as completely rational for an individual to decline to participate. Unfortunately, at least partly because progress is measured in terms of the qualification targets used to attract inward investors, such a conclusion is not considered by policy-makers in Wales.

Proposals for research

We have recently been funded to consider the impact of virtual colleges on participation patterns by the Spencer Foundation of USA (SG199900305). Specifically we hope to answer the following questions:

- What strategies are the virtual education providers using to attract learners?
- How effective are these strategies in attracting potential users?
- What is the evidence that such opportunities have widened access to include those previously disenfranchised from lifetime learning?

- What are the reactions and experiences of users to the quality of the learning experience provided?
- (If there are problems in widening access) what suggestions can be made to help the virtual college movement achieve their objective?

We have so far attempted to address these questions via secondary analysis (e.g. of the NIACE data), and documentary analysis. In addition to these methods we will use participant observation, interview analysis, and statistical appraisal. We are members of the Access Group for Coleg Digidol Cymru, working towards increasing access while also observing the process as full participants. We hope to use the insights gained to answer the first, and perhaps the second questions. The College has just prepared literature to start enrolling people. We hope to have access to the records of these (anonymously), and to compare the characteristics of registrants with those of the local population derived from the Census (via NOMIS). If this is not possible in the time, we hope to gain equivalent data from one of the other colleges. In this way we hope to answer the second and third questions. We want to carry out a pilot set of interviews on both registrants and non-registrants, in order to answer question four. In light of our findings, we will make general recommendations to help the projects meet their aim of widening access.

Early evidence

We have no evidence as yet of the number and characteristics of registrants for the Coleg Digidol Cymru, which starts in earnest this month, but it may be significant that when we rang to enquire how to register the receptionist stated that only one person knew when and how expressions of interest could be made, and that she was away at a meeting in London. Early indications from the slightly more advanced Ufi projects in England suggest growing doubts about their efficacy ('Ufi pilot does not meet need', TES 26/2/99, p.29). An evaluation of the 'pilot' schemes showed systematic differences between those who registered interest and those who did not, and little awareness of the scheme among local firms and residents. It concluded that the 'rhetoric of intentions' was more significant than the 'reality of outcomes' (Morrison et al. 1999, p.7). Reports of large numbers of learners joining the scheme have been exaggerated by the inclusion on the relevant databases of those willing to receive promotional material through the post as 'registrants', whether they follow this mailing through or not. In addition, many of those who were registered as expressing an interest did not know that their names were being used, nor why. The researchers suggested inaccuracies in the database. Little information was recorded about each enquiry other than the address, but even on this indicator there were clear imbalances (for example between urban and rural areas). Where learners are provided with virtual courses, a clear majority so far have been ICT-related (see below).

Where enquiries come through Learning Direct, as they will do increasingly, it was recently reported that fewer than half of callers get through first time, that half of these give up at that point, and a third did not get the information they wanted even once connected (Johnston 1999). In a survey of 6,000 callers who did get through, a large proportion were young (35% aged 26-35), graduates (36% compared to only 8% with 'few or no qualifications'). More of these were female than male, but even so there is no evidence yet that ICT is doing anything other than

appealing to those who are already likely to be participants in adult learning (Bysshe and Parsons 1999).

Early evidence from participation in the Access group suggests that other participants are of three types. (a) There are representatives of those organisations which stand to gain from the project. Thimbelby estimates that there is £50 billion to be made simply from selling each adult a computer, and the profit to be made by course, material, and software providers will be much greater. (b) There are those who are fascinated by the technical challenges, for example in transmitting digital signals to remote areas of Wales. (c) There are those who see the College as an extension of policies to encourage Welsh-speaking. All together these factors might explain why some participants blithely assured us of the cheapness of adding a second phone line in a region where 20% of households do not have one line yet, why the website is only searchable in its Welsh language version (while only around 2% of the population use Welsh as their language of communication), and why the prospectus uses photographs of oak-mantled fireplaces, and thousands of pounds worth of electronic equipment in its depiction of the 'typical learner'.

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