

# Logged on to learning? assessing the impact of technology on participation in lifelong learning

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The role of information and communications technology (ICT) in widening participation in lifelong learning, and thereby establishing the UK as a *bona fide* 'learning society', is now enshrined in a series of multi-million pound government initiatives such as the University for Industry, learndirect and UK Online. Although politicians and educationalists have been quick to herald such initiatives as revolutionizing post-compulsory education and extending learning opportunities to 'anyone' on an 'anytime, anywhere' basis, there has been little empirical analysis of how ICT is actually impacting on patterns of lifelong learning in the UK. With this in mind, the present paper presents an analysis of data from the 2002 National Institute of Adult Continuing Education (NIACE) survey of 5885 households, focusing on learners' access to technology and the role that technology is playing in facilitating learning.

Technology can make lifelong learning a reality. With electronic tools, people can learn virtually anytime and anyplace they choose without obstacles . . . Technology makes learning a private and personal experience and seems to motivate learners. (Edwards 1993: 76)

## Background

Information and communications technology (ICT) and technology-based learning have quickly become educational 'hot topics' over the last decade. Encouraged by the rapid growth of internet use in many areas of business, leisure and other public sectors, educationalists around the world have been quick to herald ICT as a transformatory arena for both compulsory and post-compulsory education and training. For many authors, ICT-based learning is seen as a particularly dynamic means of providing post-compulsory education—functioning as 'a catalyst for educational diversity, freedom to learn and equality of opportunity' (Forman *et al.* 2002: 76). The notion of 'freeing' post-compulsory education from the barriers that previously prevented people from participating

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has therefore been prioritized at the core of the current 'lifelong learning' ICT agenda in the UK and elsewhere. Barriers to learning—whether they are categorized as cultural, structural and personal (Maxted 1999) or situational, institutional and dispositional (Harrison 1993)—are now seen as resolvable through the use of technology:

Rather than sitting in the stands or cheering from the touchline, ICT will enable learners to acquire transferable skills and to play a full part in the game, according to their own rules . . . ICT can provide for learning that is differentiated by learner choice, rather than by the imposition of the governing body or the expert referee. (Hawkey 2002: 5)

This renewed educational faith in ICT has coincided with growing political recognition that the production and distribution of knowledge are becoming increasingly significant with regards to the economic competitiveness and development of countries around the world as 'knowledge economies' (DTI 1998, Selwyn and Brown 2000). It is of little surprise, therefore, that ICT-based initiatives have formed the bulk of interventions aimed at achieving lifelong learning for all in the UK with the government keen to adhere to the notion that technology is a means through which to free learning from those characteristics that have made it traditionally unattractive or inaccessible to large sections of the population. To this end, the present New Labour government in the UK has introduced a host of technology-based lifelong learning initiatives under the aegis of the University for Industry (Ufi). As Harris (2000) observes, the Ufi has been developed as 'a new kind of electronic public space' for encouraging and facilitating adult learning via ICT much in the same way that the Open University was seen to via broadcast technologies in the 1960s.

As New Labour's ICT policies have developed over the past six years the underlying emphasis has been on ICT facilitating 'flexible learning' in terms of time and distance—whether provided via the Internet to learners' homes and workplaces or in distributed learning centres (Fletcher 2001). Soon after its official launch the Ufi adopted the public brand name of 'learndirect' under which services, education and training are now being delivered to learners and employers. Learndirect most prominently takes the form of a telephone-based helpline for directing individuals to approved and kite-marked learning opportunities as well as providing its own technology-mediated learning opportunities via a network of over 7000 learndirect and associated 'UK Online' centres in community sites throughout the UK. The initiatives not only aim to widen participation, but to reduce the current inequalities in participation amongst those groups traditionally under-represented in adult education, i.e. women, the elderly, some ethnic minorities, those on low incomes, ex-offenders and people with learning difficulties (see Selwyn 2002).

By consciously placing the Ufi 'right at the heart of our policies on lifelong learning' (Blunkett, in Tester 2000: 48), the UK government is firmly stating its faith in ICT to establish an inclusive learning society and, indeed, are already claiming initial success. In little under two years, over 360 000 people are estimated to have enrolled on more than 850 000 learndirect courses. Since it opened in 1998, the learndirect information and advice service has dealt with over 4 million enquiries (DfES 2002). Learndirect has recently reinforced the lifelong learning

message with a series of high profile advertising campaigns under the banner of ‘wherever, whenever’ and associated by-line of ‘whatever you want to learn, whatever level you’re at, there’s a course for you’ (Ufi Ltd 2002). In terms of raising the profile of adult learning, the £12 million spent on such advertising—including the sponsorship of high-profile and populist television programmes such as the daytime magazine programme *This Morning* and the prime-time quiz *Who Wants to be a Millionaire*—is unprecedented. These initiatives are now prompting politicians and educationalists of all persuasions to make wide-ranging claims about the heady combination of adult education and ICT as at last overcoming existing social inequalities and leading to a ‘renaissance’ of lifelong learning in the UK (see Selwyn *et al.* 2001b). For some, ICT has solved the lifelong learning conundrum in one fell swoop:

The University for Industry will help deliver the widest available access to new forms of learning. The new opportunities of the new information age must be open to all—the many, not just the few. (Central Office of Information 1998: 1)

The digital divide is not an absolute, which will be there for ever. Nor is it necessarily wealth-related. Most people will be able to do a quick course at the adult training college and go to the local internet Café. It is not so much about wealth, but more about age and using adult education imaginatively. (Vincent Cable, the Liberal Democrat spokesman for Trade and Industry, cited in Sarson 2000)

### Research questions

If we disengage ourselves from hyperbole for a moment, it becomes apparent that there is little substantial evidence to either support or refute such claims. Despite the millions of pounds being invested, we know little of the extent to which access to home and community-based ICT is contributing to formal and informal learning amongst adults in the UK. Very few large scale analyses have been carried out examining the success (or otherwise) of the recent ICT-based educational initiatives as well as the impact on adult learning of the domestic proliferation of ICTs into people’s homes. Given these present empirical gaps, this paper will now consider to what extent can ICT be said to be contributing to the development of the UK as a ‘learning society’. It addresses the following research questions:

- who among the UK adult population are participants in recent learning experiences, and how do they differ from those who are not participants?
- who among the UK adult population have access to various technologies with a capability of delivering learning experiences?
- what is technology, particularly ICT, used for?
- to what extent does this use involve learning?
- does access to technology, particularly ICT, ‘create’ adult learners and learning experiences?

### Research design and methods of data analysis

The data presented in this paper derive from the 2002 annual survey of adult learners in the UK carried out by the National Institute of Adult Continuing Education (NIACE).<sup>1</sup> The NIACE survey involved 5885 households, based on 390 randomized geographical clusters, including a boosted sample of 1000 cases from Wales, and re-weighted to reflect appropriate proportions by sex, social class (assessed in terms of AB: professional/managerial, C1: non-manual, C2: manual skilled, and DE: partly- or un-skilled) and standard economic region. The responses have been analysed in terms of frequencies and cross-tabulations.

In addition, logistic regression analysis with forward stepwise entry of predictor variables was used to 'predict' patterns of individual participation (as has been suggested for analysis of time-dependent variables, Allison 1984). The dependent variable, to be explained or predicted, is non-participation in lifelong learning (defined as those who report no episodes of education or training since leaving school at the earliest opportunity) or of recent participation (defined as those who report episodes of post-compulsory education or training in the last three years, including current episodes). Some cases remain unclassified. The independent variables, or potential determinants of participation, are entered in batches in the order that they occur in the individuals life (this is instead of the more usual procedures of either entering all variables in one step, or stepwise in the order of the amount of variance they explain).

The variables entered at birth were age, sex, ethnic group and family language. The variables entered in the second stage were age of leaving full-time education (and the interactions of this with the 'birth' variables). The variables entered in the third phase were social class, employment status, area of residence, language in which they wish to learn and age of children. The variables entered in the fourth phase were reported access to various technologies, including the Internet. At each stage we also examined the impact of these variables in interaction. In this way, the variables entered at each step can only be used to explain the variance left unexplained by previous steps, and are selected by using the Likelihood Ratio statistic (Norusis 1994). Thanks to this novel method of analysis, which models the order of events in individual's lives, the relevant variables become valuable clues to the socio-economic determinants of patterns of participation in adult learning.

The proportion of cases in each category of the dependent variable are not exactly equal. In this case, a proportion of cases may be accurately classified simply by placing all of them in the modal category (for example, by predicting that any respondent is a recent participant as opposed to a non-participant, one has a 54% chance of being correct by luck alone). Therefore, the predictive power of each regression equation is estimated here as the proportionate difference between the observed and predicted cells in the opposite half of the table to the cell for predicting the most frequently observed category. The predictive power is calculated as the proportionate improvement relative to a base figure in which all cases are classified in the modal class. In table 1, if Category 1 is more common than Category 0 so that  $c + d$  is greater than  $a + b$ , then the predictive power of the table is  $|a - c| / (a + b)$ . If Category 0 is more common, then the predictive power of the table is  $|b - d| / (c + d)$ . This is equivalent to the accuracy of the model minus the modal frequency, all divided by the non-modal frequency.

**Table 1. Calculating the predictive power of regression equation**

Observed/predicted	Category 0	Category 1	Total
Category 0	a	b	a + b
Category 1	c	d	c + d

For convenience, in the tables any redundant information is minimized. Only variables selected as possibly relevant by the modelling process, and retained using the likelihood ratio statistic are discussed. All models cited had a relatively clear division between the two groups in terms of a predicted probability scattergram (although there are always a minority of cases mis-classified with marginal probabilities), and the quality of the models in terms of goodness-of-fit to the data and log-likelihood were more than adequate for analysis to continue (for more on this, see Gorard *et al.* 1999b).

The decision whether to use qualifications as a predictor when modelling participation is a difficult one, since it is not clear how far qualifications are the outcome or the determinant of formal episodes. Many observers, having noted the strong relationship between prior qualifications and further participation, have suggested that qualification is a key determinant in an accumulation form of human capital theory (e.g. Roberts *et al.* 1990, Smithers and Robinson 1991). However, changes in participation over time mean that age alone is a good predictor of initial qualifications, and since the growth has been stronger for women than men, gender in conjunction with age is an even better one. When further personal and socio-economic background predictors are added to age and gender, levels of personal qualification are themselves accurately predictable (Gorard 1997).

There is, therefore, no reference to qualifications as potential predictors in the models that follow. However, alternative models have also been created with two levels of information about qualification (as part of the interactive fitting and criticism process, Dale and Davies 1994). The gains in the accuracy of allocating individuals to categories of participation were negligible, although as soon as qualifications are introduced they become key predictors for participation. What happens is that qualification simply replace, or act as a proxy for, socio-economic variables that are just as effective as predictors but which predate the qualifications in a causal chain. Put simply, qualifications are more nearly a characteristic of a pattern of participation than a cause of it.

## Results

### *Learners and non-participants*

In the UK, 42% of cases reported a current or recent learning episode (in the past three years), 22% reported some non-recent post-compulsory education or training, and 36% reported no learning episodes since reaching compulsory school-leaving age. The first group is described here as 'recent learners' and the third group is described as 'non-participants'. The size of the non-participant

**Table 2. Pattern of recent learners by age cohort (percentage)**

Total	17–19	20–24	25–34	35–44	45–54	55–64	65–74	75 +
42	78	72	51	49	44	30	20	10

**Table 3. Pattern of non-participants by age cohort (percentage)**

Total	17–19	20–24	25–34	35–44	45–54	55–64	65–74	75 +
36	20	17	28	28	33	44	54	62

group is similar to that reported in previous studies of lifelong learning (e.g. Gorard and Rees 2002). Around one third of adults are not, and have not been, involved in our ‘learning society’—at least in terms of formal participation in learning episodes (but see Gorard *et al.* 1999a, Selwyn and Gorard 2002). These are the adults that current policies are attempting to include. More specifically, this is the group that information technology, whether informally, or via organizations like learndirect, is intended to overcome barriers of time, place and cost for.

However, as the following results emphasize, recent learners and non-participants also differ from each other in other systematic ways that cast doubt on the possibility that technology will provide a general solution to the problem of non-participation (Gorard 2000). For example, reports of participation are less frequent among: older cohorts (they decline with age, table 2 and 3); less prestigious occupational groups (they decline with social class, table 4 and 5); those leaving full-time continuous education earlier; and those with lower levels of qualification. Table 3 is particularly powerful, since it shows clearly how older groups are less likely to have been involved in *any* learning, despite the longer time they have had to do so.

**Table 4. Pattern of recent learners by social class (percentage)**

Total	AB	C1	C2	DE
42	60	54	37	25

**Table 5. Pattern of non-participants by social class (percentage)**

Total	AB	C1	C2	DE
36	16	24	38	57

**Table 6. Pattern of highest qualification (percentage)**

None	NVQ2	NVQ3	NVQ4/5	Other/don't know
31	25	12	24	8

**Table 7. Pattern of no qualification by age (percentage)**

Total	17–19	20–24	25–34	35–44	45–54	55–64	65–74	75 +
31	13	8	14	19	32	44	59	63

**Table 8. Pattern of no qualification by social class (percentage)**

Total	AB	C1	C2	DE
31	8	19	33	54

These data show that total non-participation will diminish over time, because such a high proportion of 17–19 year-olds are current learners. However, the 22% of the age group not continuing with education after school are, according to previous studies, likely to remain non-participants, and many of the others are likely to be only ‘transitional’ learners—continuing with immediate full-time continuous education but then not being involved again. The two groups differed little in terms of ethnic background. Men and women are equally likely to be current learners, but men are less likely to be non-participants (33:38%). Again this bears out our earlier work showing that while immediate post-compulsory learning is now largely gender neutral, later-life learning is not (Gorard 2002, Gorard and Rees 2002).

The patterns of participation by age and class are reflected in the reported highest qualification of the respondents (tables 6 to 8). Highest lifetime qualification below a National Vocational Qualification (NVQ) level 2 is more prevalent among older age cohorts, again despite the greater time they have had.<sup>2</sup> Low levels of qualification are somewhat more common among women (33%), those who left school at the earliest opportunity, and those who report being less likely to participate in the next three years. Of the recent learners, 39% were funded by themselves or their family, 28% involved no cost and 21% were funded at least in part by their employers.

#### *Access to, and use of, ICT*

A key argument for the impact of ICT on participation is the ability to overcome physical barriers such as travel and place through technology. However, this new

**Table 9. Pattern of recent learners by regular access to technology (percentage)**

Total recent learners	42
Digital TV	45
Analogue cable or satellite TV	41
Analogue TV	40
Internet (work only)	71
Internet at home	58
No Internet	27
No PC	23
No telephone	33

dataset agrees with our previous work in this area in offering only limited support for the argument. Only 1% of respondents cited travel/transport as the chief barrier to their future participation. 25% expressed no interest in further learning, 13% claimed to be too old, 9% expressed no need to learn and, 6% said they had not got 'around to it'. This is a total of at least 53% of non-participants who, if taken at their word, would be unaffected by access to learning opportunities via ICT. However, of the others 20% cited lack of time, 7% cost, 7% need to care for others and 4% being too ill. All of these problems might be amenable, at least in part, to a technological solution.

Unfortunately, the patterns of learning and non-participation in terms of age and class are largely repeated in terms of access to the technology itself (tables 9 and 10). For example, while 78% of recent learners have access to the internet at work, only 10% of non-participants do. Of course, we cannot tell simply from these figures if there is a causal link here or, if there is, in which direction it flows (but see discussion below). Similarly, of those with no qualification, 46% had no access to the internet, 49% no access to PCs and 43% no telephone.

Another common argument for the role of technology is that virtual colleges will encourage wider participation. In this survey, 13% people reported finding out about their most recent episode from friends or family, 12% from a work mate, 11% from their college, 7% from a higher education institution and 7% from a school. Only 2% (48 cases) reported using the internet to help find out about the episode,

**Table 10. Pattern of non-participants by regular access to technology (percentage)**

Total non-participants	36
Digital TV	34
Analogue cable or satellite TV	37
Analogue TV	38
Internet (work only)	10
Internet at home	20
No Internet	50
No PC	53
No telephone	50



**Table 11. Pattern of studying computing skills by age (percentage)**

Total	17–19	20–24	25–34	35–44	45–54	55–64	65–74	75 +
29	19	15	27	33	37	36	28	23

and only 1% (14 cases) used the Ufi or *learndirect*. So the first conclusion is that the latter source of information is not widespread compared to more traditional sources.

Of the 48 cases using the Internet as a source of information about learning, 38 were male, 36 aged under 45, 42 were in the two most prestigious social classes, 36 already had some post-compulsory learning experience, only three were unqualified while 22 had an NVQ level 4/5 qualification, 33 were in work and three were full-time students, 42 had access to the internet at home, 46 had a PC and 47 had a telephone. Of the 14 cases using the Ufi/*learndirect*, 10 were male, 10 were under 45, 11 were class AB/C1, 11 already had post-compulsory experience, none were unqualified, nine had NVQ level 4 or 5 qualifications, 13 were in work with one full-time student, nine had access to the Internet at home and one at work. Therefore, the technology route to post-compulsory education appears to be recruiting largely the ‘usual suspects’. These are younger, employed, professional, male, qualified, already learners, who have access to the relevant technology at home.

To a large extent the same pattern appears when we consider technology as the deliverer of the learning experience itself, rather than simply acting as a broker of information about learning. Of the recent learners, 21% reported studying at college, 16% in higher education, 15% at work and 9% at a private or employer-funded training centre. In comparison, 6% principally learnt at home using a computer and only 2% learnt elsewhere using a computer—principally at *learndirect* or UK online centres.

Of the 127 cases using a computer to learn at home, 76 were male, 65 were aged under 45, 93 class AB/C1 and only 12 DE, 50 had no previous post-compulsory experience, 15 had no qualifications while 62 had NVQ level 4/5, 16 were retired, 16 not working, 121 white and 109 had access to the Internet at home plus 3 had access at work. Of the 36 cases learning at an ICT centre, 22 were female, 26 under 45, 17 class AB/C1, 12 DE, 19 no post-compulsory, 7 no qualification, 11 NVQ level 2, 8 retired, 10 unemployed/not working, 34 white, 17 no Internet and 14 had no PC. Thus, we have some evidence that the two groups are distinct. Those learning at home using a computer are similar to those using the Internet to find out about learning—male, qualified, and professional—although perhaps a little older. On the other hand, those learning in centres are somewhat more likely to be female and less qualified (and this is further justification for our future intention of sampling both households and drop-in centres).

These differences appear also in patterns of access to computers and patterns of learning about computers themselves. Computer skills, IT and the Internet is by some way the largest single area of study for recent learners (29%). These tend to be older (table 11), less qualified, more unemployed (38%) and so more like those using IT in drop-in centres. Tables 12–14 show that Internet access is patterned by social class and qualification.

**Table 12. Patterns of regular access to technology (percentage)**

Mobile Phone	CD	DVD	PC	Internet
71	79	26	53	41

**Table 13. Patterns of regular access to Internet by social class (percentage)**

Total	AB	C1	C2	DE
41	67	55	36	17

**Table 14. Patterns of regular access to Internet by highest lifetime qualification (percentage)**

Total	None	NVQ2	NVQ3	NVQ4/5
41	15	44	60	64

Of those with access to the Internet the most popular activity was e-mail (76%), general browsing (69%), followed by looking for information on goods and services (58%), buying goods and services (43%) and banking (31%). A total of 38% used the Internet for finding information relevant to learning or training and 22% used it for learning online. Similarly, the single most common use was e-mail (37%), followed by browsing (21%) and looking for information on goods and services (7%). A total of 6% mostly used the Internet for finding information relevant to learning or training and 2% mostly used it for learning online.

#### *Identifying the long-term determinants of participation*

There is so much potential interaction between the variables in the analysis so far that we attempt to clarify at least part of the story via multivariate analyses. For example, it is clear so far that older groups and those who leave full-time education early are both less likely to have access to technology such as the Internet. However, older groups are also more likely to have left full-time education early. The analysis reported here concerns those who are current/recent learners and those who have never undertaken any post-compulsory education. The variables are entered into the analysis in the order that they would occur over the lifecourse, and are used to try and predict which of the two groups each individual will be in.

**Table 15. 'Success' in predicting learners at birth**

	Predicted not learning	Predicted recent learner
Observed not learning	1089	1074
Observed recent learner	451	1910

**Table 16. 'Success' in predicting learners at school**

	Predicted not learning	Predicted recent learner
Observed not learning	1542	641
Observed recent learner	480	1881

**Table 17. 'Success' in predicting learners as adults**

	Predicted not learning	Predicted recent learner
Observed not learning	1656	507
Observed recent learner	584	1777

Using only those variables known about each individual at birth the model is 66% successful in allocating them to being recent learner (table 15). This accuracy is relatively poor, in comparison to our previous work, but where we were able to find out about parental background and region of birth these were both found to be key to lifelong learning trajectories. Neither group of variables is available from the NIACE survey. The only variables retained in the new model are age cohort and family language. Older individuals are, as we have seen above, far less likely to be recent learners. For example, the youngest cohort is 25 times more likely to be learners than the older cohort, while the second-oldest cohort is only 2.5 times more likely to be learners than the older one. Those whose original family language was not English were 0.75 times as likely to be learners.

By the time of leaving full-time education, the model for recent learners is 75% accurate (table 16). It now includes age and family language (as above), with the new predictor: age of leaving full-time education (increasing odds of 1.2 per year of immediate post-compulsory experience) and the interaction of this age with current age (affecting only those who had recently completed full-time education and were therefore less likely (0.73) to have recent but non-continuous experience).

When adult and work-related variables are added, the model for recent learners becomes 76% accurate (table 17). The determinants are age, family language, age of leaving FTCE and now social class, government region, employment status and the interaction of sex by age of child. The more prestigious the social class the more likely the individual is to be a learner. For example, those in social class AB are 3.0

**Table 18. ‘Success’ in predicting learners via ICT**

	Predicted not learning	Predicted recent learner
Observed not learning	1660	503
Observed recent learner	508	1853

times are likely (once other factors are accounted for) to participate as class DE, those in class C1 are 2.3 times as likely, and those in C2 1.4 times. Those in the South East are 1.7 times as likely to participate as those in the South West, for example. Those living West Midlands only 0.83 times as likely as those in the South West. A male with a child is 1.6 times as likely to participate as a woman with a child. Men in full-time work are less likely (0.56) to participate than women in the same situation, but men in part-time work are more likely (1.5).

When current access to technology variables are added, the model for recent learners becomes 78% accurate (table 18). The determinants are as above, with the addition of access to technology. While regular access to mobile phone (0.87), CD (1.2) and DVD players (1.1) make little difference, not having a computer reduces odds of participation by 0.42.

Several conclusions can be drawn from this simplified trajectory analysis. First, despite missing information about family background, it is clear that long-term social, economic and educational factors are closely related to patterns of current/recent learning. While access to ICT is largely patterned in the same way, access to ICT does not, in itself, add much more to our predictive model. It is, like qualifications, a proxy for the other, more complex, variables that pre-date it.

### Discussion

Clearly non-participation in education remains a significant and deep-rooted trend in the UK with or without ICT based initiatives. That 42% of individuals reported taking part in some form of learning over the past three years is tempered by the converse finding that over a third of the population reported no learning episodes since reaching compulsory school-leaving age. Crucially, the data presented in this paper reiterate the conclusion that whether or not an individual participates in learning is a lifelong pattern, already presaged at school leaving age, and intrinsically related to long-term social, economic and educational factors.

It also follows from our regression analysis of the participation data that access to ICT does not, in itself, make people anymore likely to participate in education and (re)engage with learning. We have shown how access to ICT continues to be largely patterned according to long-term pre-existing social, economic and educational factors. Thus, like educational qualifications, access to ICT is a proxy for the other, more complex, social and economic factors that pre-date it rather than as a direct contributory factor in itself. This point is an important one and

worth reiterating as it is at odds with much contemporary educational thinking and rhetoric. Most rational commentators would agree that simply because recent participants in education are more likely to have access to gazebos, Rolex watches or whatever, it would be far-fetched to suggest that that a lack of access to these items is in some way hindering non-participants from taking part in learning. Yet this is precisely the logic that many commentators continue to adopt in relation to ICT. This is highlighted in the following UK newspaper report on the preliminary analysis of the *same* survey data used in this paper:

‘Divide is Blamed for a Slump in Adult Learning’ . . . the digital divide is having a big impact in preventing more adults from accessing new skills and learning opportunities . . . Inability to access the Internet is a factor in encouraging more people to start studying again . . . More than two thirds of people without Internet access at home said they are unlikely to learn in the future, compared to less than half of those connected to the web. (*South Wales Echo* 2002)

This almost unconscious willingness to presume a one-way causal relationship between access to ICT and learning typifies current received wisdom within the educational and political communities and is difficult to challenge. In raising these points we are not claiming that ICT has had no impact whatsoever on the lifelong learning landscape. There was, for example, emerging evidence that some non-participants are being ‘won over’ by ICT-based learning. The emergence of a small number of (relatively) older women from lower socio-economic groups beginning to learn to use IT in community-based sites does point to a change in the pattern of learning activity directly attributable to IT. What the longer-term effects of such groups ‘dipping their toe in the water’ of adult learning in this way remains to be seen. It is a sign of hope.

We also acknowledge that the data from the NIACE survey may not accurately reflect all informal learning that people are likely to be using ICT for. There was considerable evidence that the learning episodes reported by participants were likely to take the form of basic or advanced ICT skills courses. Indeed, ICT skills courses could be seen as the typing and secretarial courses of the 2000s but the fact remains that such provision has replaced and not augmented other types of provision. Indeed, set against the high expectations set up by the government, we can only conclude that ICT is not having the widespread beneficial impact that many politicians and educationalists would have us believe.

Our over-riding conclusion is a simple one: that ICT can go *some* way to altering patterns of participation in education for *some* individuals but should on no account be assumed to be a universal panacea to achieving a truly inclusive ‘learning society’. It is, therefore, time for educationalists to reassess their expectations of ICT and not get carried away with futuristic prophesying. As Kennedy-Wallace (2002: 49) recently reminded us: ‘Whether learning online in the workplace, in college or at home, e-learning is still about learning and culture, not just technology and infrastructure. However, much of the debate in the past decade has been captured by the wizardry of the Internet and marketing hype’.

Whilst the tendency for politicians to overstate the impact of their policies is understandable, there has been a tendency for even reasoned and cautious

commentators to concur with the surrounding hype and uncritically attribute ICT with expansionist and transformatory powers. Despite the overwhelming evidence that participation in post-compulsory learning is not being radically altered the government, media and educational community remain convinced of the ability of ICT to act as a ‘technical fix’—a trend in which the UK is certainly not unique (Selwyn *et al.* 2001a). Our concern here is that the overwhelming attention being paid to ICT may be acting as a distraction or impediment to more prosaic (but arguably more effective) interventions aimed at altering patterns of poverty and social disadvantage, or encouraging rather than destroying non-certificated learning opportunities. We therefore need to be realistic about what ICT can and cannot be expected to achieve if we are to harness its educational potential.

From a political point of view, politicians and policy-makers need to resist the tendency to overplay what is on offer to learners via ICT. Much of this so-called ‘new’ ICT-based educational provision is either repackaged ‘old’ educational provision and courses or a narrow provision of new courses. As Cullen *et al.* (2002) quite sensibly concluded, ‘the evidence does not suggest the “new learning technologies” imply or precipitate “new forms of learning”’. The majority of learndirect’s 800 specialist courses have been in basic and advanced IT skills and tied into existing learning providers such as further education colleges—hardly the cornucopia of diverse learning opportunities (‘anything’) being made available ‘anytime’ and ‘anywhere’. Indeed, the Adult Learning Inspectorate in England also reported recently that the learndirect centres were offering too narrow a range of courses (Ryan 2002). Of even more concern are the figures we present here that, over the last three years (practically the whole life of the Ufi), 14 people out of a national sample of nearly 6000 have found out about, or arranged, a learning experience through Ufi/learndirect. That represents around 0.002% of the UK population.

The danger of raising the stakes for ICT-based learning so high in the short-term as the UK government appears to be doing is that the likely failure to achieve the expected successes may do more long-term damage than good. With the global online learning market expected to reach \$50 billion by 2005 (Dumort 2000), the furore and heightened expectations surrounding ICT and adult learning is unlikely to cease yet widening participation in education is far more complicated than merely giving people access to ICT in public sites and providing skills training. Instead, there is a pressing need to move the debate forward. ICT should not be seen as a single variable in engineering interventions to the perceived ‘crisis’ of non-participation (Gorard and Selwyn 2002). Nor should it detract from the more prosaic ‘offline’ necessities of educational provision, which should continue to be funded and prioritized.

## Notes

1. This paper derives from a project funded by the Economic and Social Research Council [R000239518]. The authors are grateful to NIACE for the provision of the dataset used in this paper.
2. The National Vocational Qualification (NVQ) framework is the present UK system for classifying qualifications according to progressive levels of achievement and areas of competence. It provides a structure for accredited qualifications, which indicates the relationship between them and helps

identify progressive routes. To give a brief indication: NVQ level 1 relates to elementary qualifications; NVQ level 3 relates to the qualifications that UK students need to complete in order to progress to higher education; and NVQ level 5 refers to postgraduate qualifications/higher degrees.

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