

**Equality and Human Rights Commission
Triennial Review:
Education (Lifelong Learning)**

Internet Access and Use

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Headline Findings

1. Internet access and use are fast becoming essential components of everyday life with 70% of UK households in 2009 having access and 63% having broadband access. Since 2006, access has increased by 13% percentage points with broadband access increasing by 23% percentage points. Scotland is falling behind England and Wales in terms of take-up.
2. There is cause for concern with regard to some of the more vulnerable groups (families with young children, the unemployed, the physically and socially isolated, the elderly, disabled people and those living in rural and remote areas) where a complex set of factors can restrict internet access and use. Patterns and trends in internet access and use tend to replicate and amplify existing inequalities.
3. Women are somewhat less likely to use the internet than men although for those who are users, there is little difference in terms of intensity and kinds of use. Once people become regular users, there seems little difference in type of use.
4. There is a steep decline in use with age with a particularly precipitous drop for the over 65s in both use and intensity of use of the internet. The range of activities for which the internet is used is broadly constant for each age group with little sign of inequality in terms of learning, commercial, social activities and so on. Of those who are not online, 72% are over 65 years of age. Age and educational level interact strongly so that of those who are not online, 44% have no formal qualifications (33% of these are over 75).
5. Cost remains a significant barrier for some and it seems likely that the limits of market-driven provision in securing increased levels of access and use has been reached: the so-called final third of the population, within which age and socio-economic status are key drivers, looks likely to remain more digitally excluded. Those with incomes of over £40,000 are more than twice as likely to be online compared with those earning less than £12,000. 65% of those who are not online are in the D and E socio-economic groups.

6. Particular kinds of disability lessen the likelihood of being online. In 2008, only 42%, 32% and 35% of those with visual, hearing and mobility disabilities respectively, had broadband access compared with the then figure of 56% of the general population.
7. For ethnic minority groups, the situation is broadly encouraging in relation to the UK population as a whole. Ethnic minority groups tend to access and use the internet at similar rates in the under 45 age groups although differences are apparent between, for example, the relatively high levels of use for Indian, Pakistani and Black African and Black Caribbean groups in the C2, D and E categories. All groups in these socio-economic categories have higher rates of access than the UK average of lower employment status groups, indicating that the access of the White population in this socio-economic category group is below average.
8. The evidence on internet access and use incorporated in the Equality Measurement Framework is problematic in a number of ways. The sample size for the main survey, the National Statistics' Opinions (Omnibus) Survey, (3,600 individuals) is too small to allow for robust investigation and disaggregation of the experiences of all the protected groups. The equivalent study in the US (50,000 individuals) has enabled compelling evidence to be provided of the experience of, for example, disabled people by a range of other interacting characteristics. This should become the model for development in the UK.

1. Introduction

This report explores the available data with regard to internet access and use and sets out to identify relevant patterns and trends. The report draws on the existing evidence base provided by the Office for National Statistics (ONS) *Opinions (Omnibus) Survey* as well as by a range of other quantitative and qualitative studies. In terms of investigating the patterns and trends of access to the internet by equality groups, a number of key questions are kept in focus throughout this report: the extent to which the equality groups have access to the internet, how their use of the internet compares with the internet use of the rest of the population, how membership of an equality groups interacts with other kinds of factors; and what can help to explain the identified patterns and trends.

2. Internet Access and Use

It is increasingly the case that the internet is more than just another commodity which people choose to acquire and use but rather that it is a means of securing full and equal economic, social and political inclusion. Internet access and use offer opportunities for learning, the gaining of skills and for benefiting from the developing knowledge economy and society. They are important for participation in social, community and political life and also give individuals and groups the means to benefit from savings in the purchase of goods and services and to access public services (HM Government, 2008). Equality in internet access and use has the potential to contribute to social mobility and enhanced life-chances. It is important, therefore, that the internet is both available and affordable and that equal access is matched by the capacity of individuals and groups to make use of the internet in ways which are meaningful and relevant to economic, social and political inclusion.

The questions of internet access and use are part of the broader field of enquiry in relation to social inclusion and exclusion. The particular concerns relate to the importance of addressing the needs of the information *haves* and information *have-nots* (Wresch, 1996), the significance for life-chances of *information and communication poverty* (Belnaves et al., 1991) and the production of a *digital divide* (Jurich, 2000). Inequalities in internet access and use are an aspect of social exclusion and inclusion. As specified by Burchardt et al. (1999: 230), 'an individual is socially excluded if (a) he or she is geographically resident in a society and (b) he or she does not participate in the normal activities of citizens in that society.' Internet access and use are becoming the norm in more and more areas of social life and digital exclusion is therefore exclusion from the normal activities of society. For some researchers, the concern is that digital divides map on to existing divides within society in processes of social inclusion and exclusion. Investigation of social exclusion has identified the links between unemployment, poor skills, low incomes, poor housing, bad health and family breakdowns (Selwyn, 2002) and the question becomes the extent to which internet access and use map on to these patterns of social exclusion. The consistent findings of the ONS's Opinion Survey has been that both internet access and use are patterned along individual and group identity in terms of socio-economic status, income, gender, level of education, age, geography and so on. In considering patterns and trends in internet access and use by equality groups, it is important therefore to consider the extent to which inequalities of internet access and use serve to 'replicate and compound existing inequalities by gender, age, race, educational background, geography and disability' (Age Concern, 2009: 3). What matters then is how *relative differences* in internet access and use start to become established. As Van Dijk and Hacker (2003) and Selwyn (2002, 2004) argue, internet access becomes a *trend amplifier* (Van Dijk and

Hacker, 2003) in which 'equalities and inequalities already present, growing or declining in society will be reinforced by this technology' (Van Dijk and Hacker, 2003: 324).

The proportion of the population with internet access in 2009 (70%), has evidently already embraced the possibilities on offer and unsurprisingly already feels that the internet is an essential component of everyday life. However, 30% of the population remain on the margins of the internet revolution and there is increasingly the sense that this group is either resistant to, or unable to benefit from, the opportunities which internet access and use constitute. It is of particular concern that those who have most to gain from access are least likely to have and make use of access. The Digital Britain Report (BIS/DCMS, 2009) identified families with school age children, the unemployed, the physically and socially isolated such as the elderly, people with disabilities and those living in rural and remote areas, as particular groups for whom the risks of non-access could be particularly severe. This report provides evidence on the kinds of patterns of internet access and use by equality groups and particularly vulnerable ones.

Internet access and use are clearly related phenomena but it is important to recognise that access is no guarantee of either use or of positive outcomes of use for individuals and groups. Mauger (2009) notes that it is important to map not only the correlations between internet access and socio-economic, generational, geographic and other group identities, but also to examine the importance of the differences in the purposes, outcomes and value of internet use. Attempts have been made by a range of researchers and organisations to do this and this report will give an indicative summary of these findings. The question, therefore, is the kind of behaviour which is evident by equality groups in addition to patterns of access. It should not be ignored either that there is an element of personal choice in what might be termed digital exclusion and the nature of choice in relation to digital divides also needs to be part of the picture.

The causes of inequalities in internet access and use are often traced back to usage factors (cost of technology, lack of knowledge, skills or operational abilities) and psychological factors (anxiety about using technology or unwillingness to try something new) (Van Dijk and Hacker, 2003) . However, there are a range of factors which are perhaps more difficult to address in policy terms. Selwyn (2004: 356) argues for a broad range of questions to be addressed:

- What kinds of use of technologies are facilitated by access?
- Under what circumstances does meaningful use arise?
- What factors contribute to people becoming regular users of the internet?
- What types of social, economic, cultural and technological capital are people able to draw upon in their use?
- What are the outcomes of this use for people and communities?
- What kinds of participation in society are enabled by engagement with the internet?
- How are people's internet access, engagement and outcomes patterned according to age, gender, class, geography, ethnicity and disability?
- What factors and circumstances can be identified as having an impact on different groups' propensity and motivations to engage with the internet?

At a certain level, patterns and trends in internet access and use are reducible to the experiences of individuals in terms of a lack of interest, computer anxiety and the extent to which engagement with internet resources is an attractive opportunity. However, individual experiences are equally evidently conditioned by their participation in particular kinds of

employment or social activities. Selwyn (2002) emphasises the importance of considering the different kinds of activity which are related to internet use (consumption activity, savings activity, production activity, political activity and social activity).

In terms of understanding patterns and trends of internet access and use, it is important to give some credence to the perspective that, as with the historical patterns of take-up of other technologies, it is merely a matter of time before resistance is overcome. Demographic shifts will therefore mean that access and use will approach the full population with little differences between groups other than by choice. From this perspective, differential access and use on the basis of age, gender, class, income and so on will gradually diminish over time. Van Dijk and Hacker (2003), however, articulate a concern, which is also addressed by the Digital Britain (BIS/DCMS, 2009) report, that saturation may well already have occurred. Consequently, what the Digital Britain report identified as the *final third* of non-users will not be addressed by existing patterns of market provision.

It is important to recognise the complexity of the issues which are raised by questions of internet access and use. In this report, the intention is to map out the terrain for the kinds of investigation which can build on robust survey-based and in-depth qualitative work so as to generate plausible findings in relation to these broader questions of internet accessibility and usage activities.

3. Evidence on Internet Access and Use

The Equality Measurement Framework includes one variable (use of the internet for any purpose in the last 3 months) from the *Internet Access Module* of ONS's Opinions Survey (Alkire et al., 2009). The module is carried out in the first three months of each calendar year. The achieved sample consists of 1,200 individuals a month and so produces a three monthly sample size of 3,600. In terms of international comparison it is useful to recognise that the equivalent US survey samples 50,000 households each month as part of its Current Population Survey (CPS) and that the CPS has a Computer and Internet Use Supplement which makes it possible to disaggregate data properly by ethnicity, disability and so on (Kaye, 2000).

The sample size of the *Internet Access Module* precludes some of the forms of disaggregation which would be most useful for the purposes of tracking the experiences of the protected minority groups (it is not possible to disaggregate by ethnicity in Scotland or Wales for example). The survey itself addresses adult individuals aged over 16 and includes questions on employment, income, age, gender, disability, age left full-time education, highest level of qualification and so on.ⁱⁱ There are less than satisfactory attempts to address individuals and groups by sexual orientation with only the limited question on same-sex cohabitation and civil partnerships. Nonetheless, in terms of investigating access and use, the *Opinions Survey* has provided some useful indicative findings which have been mapped for patterns and trends of internet access and use over time.

The August 2009 statistical first release of the findings of the *Internet Access Module* (ONS, 2009) confirmed the year on year increases in both the numbers of households with internet access and those benefiting from broadband access: 70% (18.31 million households) with access; 63% (16.52 million households) with broadband. Since 2006,

access has increased by 13 percentage points and broadband by 23 percentage points (See Figure 1).

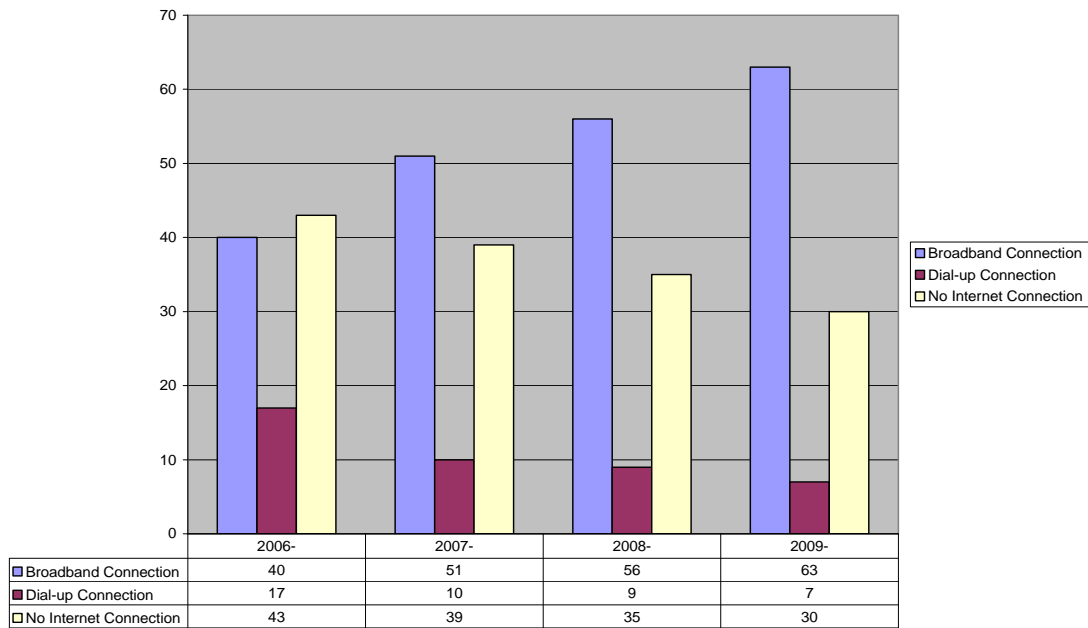


Figure 1. Increases in household internet access 2006-2009

Source: ONS, 2009, Table 2.

Within the UK, there are differences emerging in terms of internet access with Scotland tending to fall behind both England and Wales in the period between 2007 and 2009 (See Figure 2). There are also some emerging trends in terms of gender: women were less likely to use the internet than men within a given three month period. Of those who use the internet, men and women were equally likely to be using the internet on a daily, weekly or monthly basis (See Figure 3).

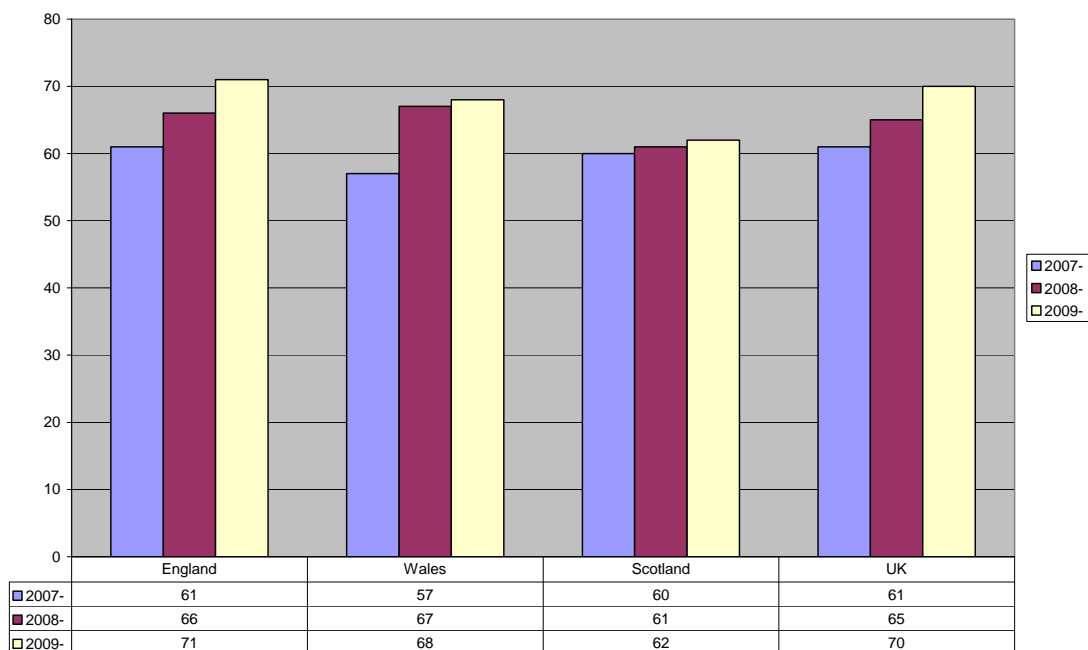


Figure 2. Internet Access England Scotland Wales UK 2007-2009

Source: ONS, 2009, Table 1.

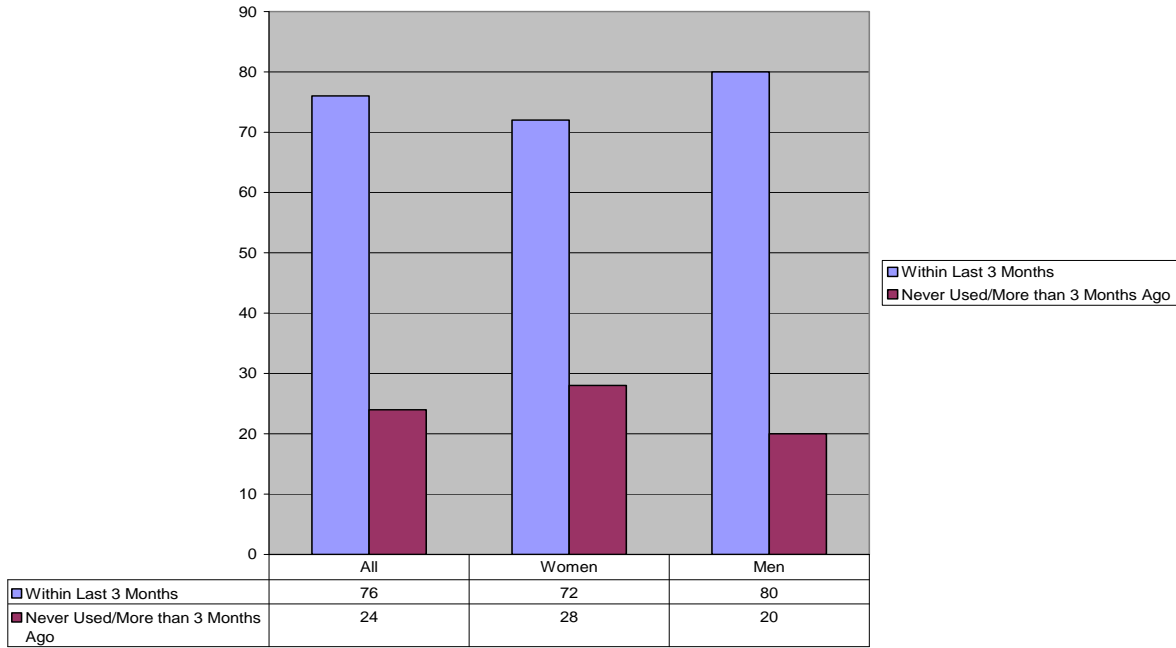


Figure 3. Internet use by gender

Source: ONS, 2009, Table 4.

With respect to age, there is a steady decline in terms of recent use of the internet with a particularly steep drop off for the over 65 age group. Amongst those adults who accessed the internet at least once in the last three months, 16% of the 65+ users had done so once a month or less (Figure 4). However, there has been a large increase in use of the internet for the 55-64 age group since 2007 (rising from 59% to 72%) and a less marked increase for the over-65s (rising from 24% to 30%) (ONS, 2009, Table 4).

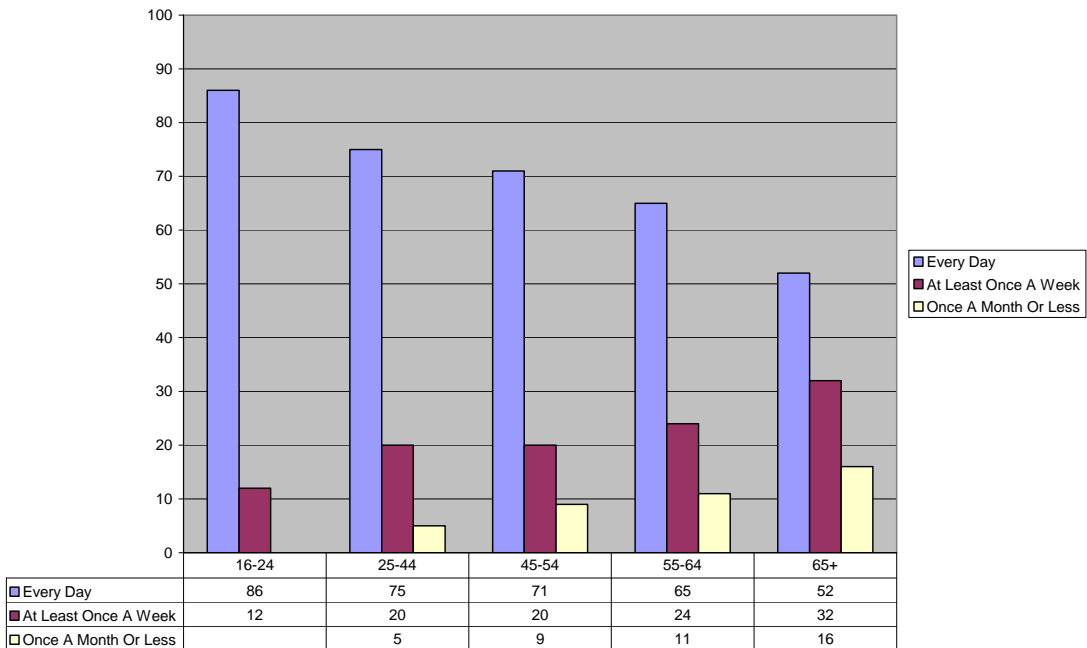


Figure 4. Internet use (at least once in the last three months) by age group

Source: ONS, 2009, Table 4.

In terms of what the internet is being used for, there are some differences between men and women. However, the overall picture is one of a broad range of activities which are facilitated by the internet and that once access is assured and people become regular users of the internet, the fundamental barrier has been overcome and the uses to which both men and women put their access is broadly similar (See Figure 5).

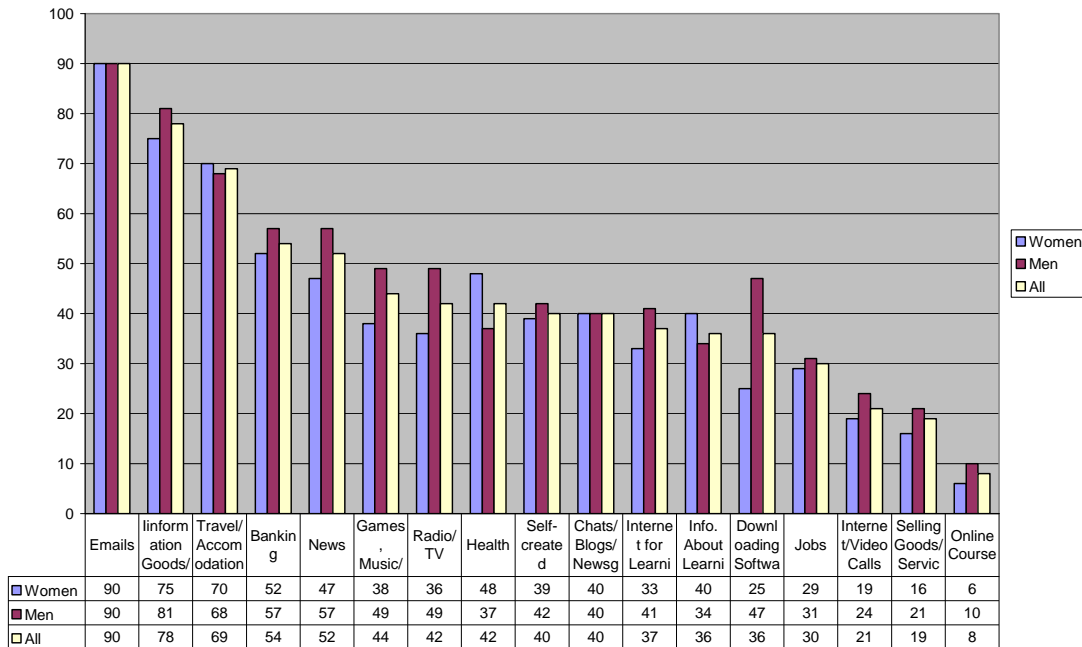


Figure 5. Internet use by gender

Source: ONS, 2009, Table 6.

A similar pattern emerges in relation to internet usage and age: different age groups have particularly high or low likelihoods of engaging in particular uses but the likelihood of particular uses tends to be quite constant within the age group (See Figure 6).

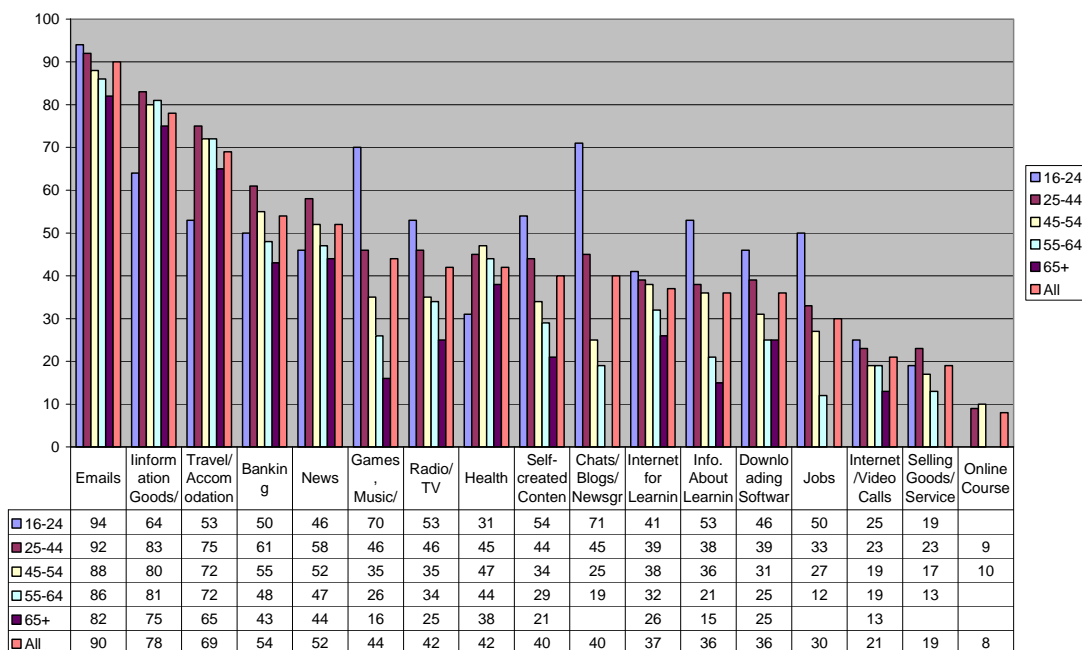


Figure 6. Internet use by age

Source: ONS, 2009, Table 7.

In terms of discerning the reasons why people have broadband access and whether they are regular users of the internet, a number of indications were provided by the Omnibus Survey in 2007 (ONS, 2007). In terms of broadband access, over half said it was because they did not feel the need for it or found broadband services too expensive. This compared with 15% for whom broadband was not available in their area or who could access a broadband connection elsewhere than in their home. For those who had used the internet recently but were not frequent users, the main reasons given were: lack of time (52%), lack of skills or knowledge (21%), cost (14%) and slow connection (12%). Clearly then, particular combinations of pressures on time, lack of relevant knowledge and skills and issues related to cost, constitute the major barriers to use of the internet even for those who have access at home (See Figure 7).

In addition to the annual findings of the *Omnibus Survey*, a number of other sources of data are now available from specifically commissioned studies. Data on internet access by group characteristics are increasingly available from quantitative, qualitative and mixed method studies (OFCOM, 2008; OFCOM, 2009; Consumer Focus, 2010). There are some consistent findings between these studies. For example, the income levels of those who do not have access are lower (those with incomes of over £40,000 per annum are more than twice as likely to be online compared to those earning less than £12,500); moreover, significant barriers for those without internet access can be the lack of a landline telephone, the lack of a bank account and the difficulty of being accepted on to an internet connection contract. Low income therefore interacts with a range of issues relating to the financing of access. In addition to finance and income, those who do not have internet access say that they lack the knowledge or skills which are a clear area where support is needed. In addition of course, there are individuals for whom the internet does not appear attractive.

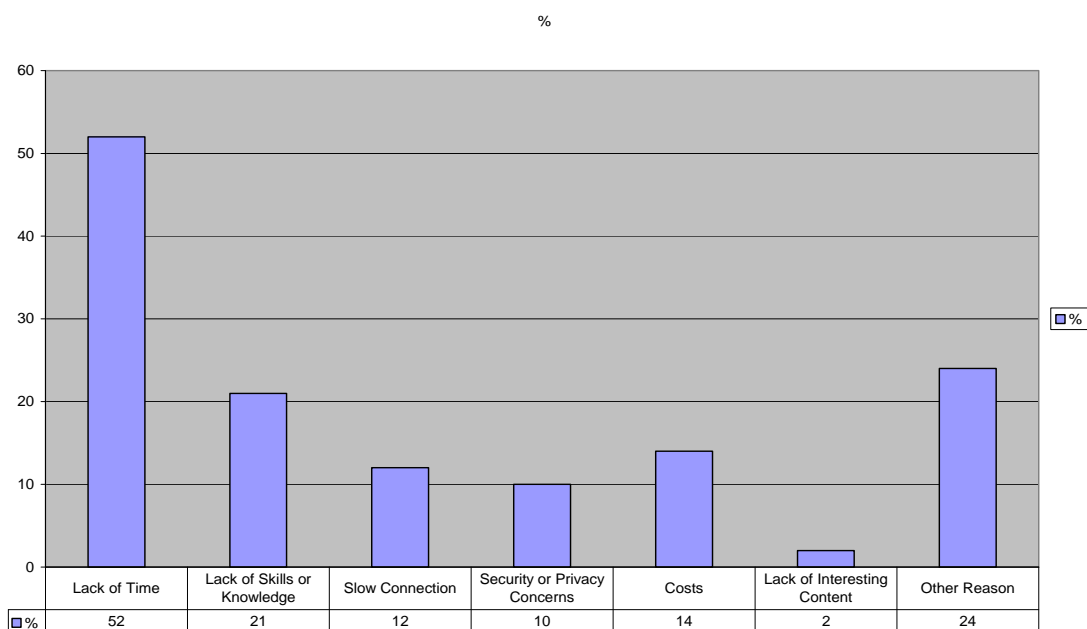


Figure 7. Reasons for lack of internet access

Source: ONS, 2007: 9.

The Ofcom (2009) study on internet access at home provides a good picture of internet access by group characteristics of those who have and do not have internet access. In terms of those who do have internet access (70% of those aged 15 and over living at home in this study), the significant predictors were age (83% of 16-24s had access,

compared with only 4% of over 65s); employment status (62% of those working had access, compared with 46% of the unemployed and only 6% of the retired); highest level of education (64% with higher education had access, compared with 48% of those with school education and only 12% of those with no formal qualification); and living with children at home (59% with children had access, compared with; 25% of those without children).

In terms of those who do not have internet access, the core findings are that 9% explain this in terms of financial constraints while 13% are what the report calls, *self-excluders*, in that they do not have either the interest in or need of having internet access. In terms of the characteristics of those who are most resistant to internet access, the report finds that they tend to be older, retired or in the D or E socio-economic groups: 72% were over 65; 72% were retired and 65% were in the D or E socio-economic groups. In addition to age and class, employment status was a significant predictor of non-internet access: 68% were not in employment (44% retired; 9% looking after home; 7% officially unemployed; 5% were not working due to a disability and 2% were students). In terms of employment, 24% worked full-time and a further 7% part-time. Clearly then age, employment status and class interact in particular ways with regards to internet access. The study identified two important proxies for the interaction between age, employment status and class: annual income and highest level of education. In terms of annual income, 32% of those without access at home, had an annual income less than £11,500; 13% had an income of between £11,500 and £17,500 and only 11% had an annual income of over £17,500. In terms of highest educational qualification, 44% had no formal qualification (33% of these were over 75) and only 16% were under 44.

The UK Government's Department for Communities and Local Government (CLG) (2008) report found that just over half of non-internet users are over 65, that just under half are from the DE social category and that 66% of non-internet users lack higher education. The research finding on which both the CLG and Age Concern base their policy discussion for internet access is that the over 65s and the DE social class account for over 28% of all people without the internet; four times that of any similar combination. The over 65s and social class DE therefore need to be the focus of further research and policy development.

4. Internet Access: Patterns and Trends

4.1 Socio-economic Status, Age, Gender and Ethnicity

The OFCOM (2008) report investigating media use and skills of adults from ethnic minority groups provides a number of important additions to the evidence base on internet access. Figure 8 displays the findings in terms of internet access by two age groups (under and over 45), socio-economic class (ABC1 and C2DE), and Gender. In this report, the figure for comparison was a total for the whole survey population of 62% with internet access. The overall picture is one of levels of internet access in excess of the UK population as a whole and for the same age, socio-economic and gender categories. For ethnic minority groups, the situation is broadly encouraging in relation to the UK population as a whole. Ethnic minority groups tend to access and use the internet at similar rates in the under 45 age groups although differences are apparent between for example the relatively high levels of use for Indian, Pakistani and Black African and Black Caribbean groups in the C2, D and E categories. All groups in these socio-economic categories have higher rates of access than the UK average of lower employment status groups, indicating that the access of the White population in this socio-economic category group is below average.

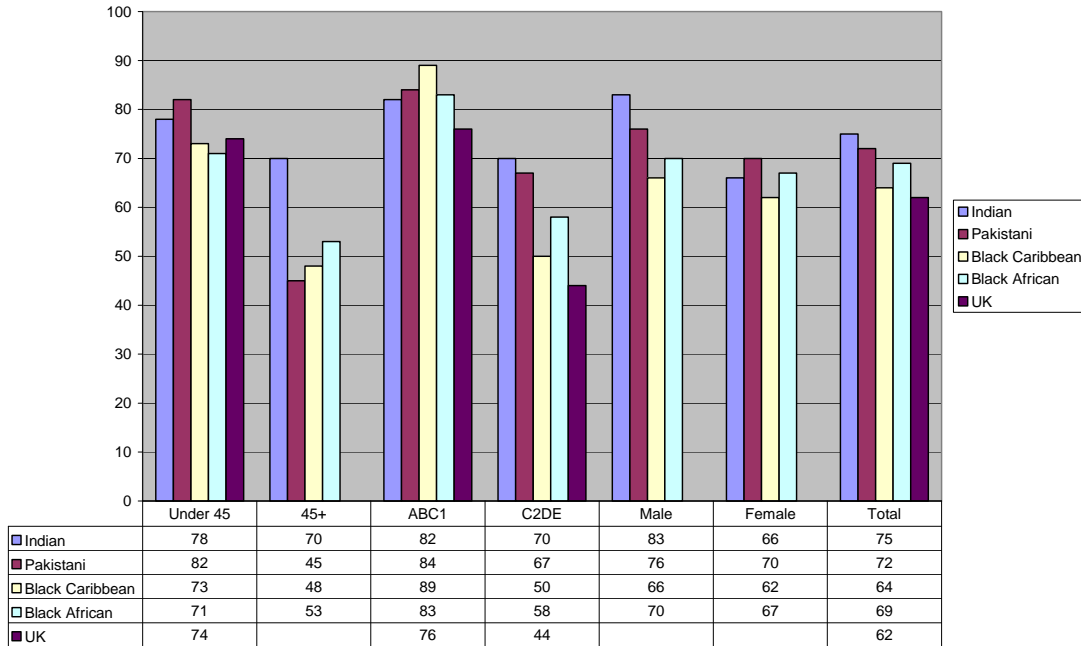


Figure 8. Internet access by age, socio-economic status and gender
Source: OFCOM, 2008.

4.2 Age

Access to the internet by age appears to have two determining factors. The first is a decline in access by increasing age and the second is the impact of socio-economic status. This has two consequences. Firstly, that while young people have the highest levels of access and use, there remains a group, estimated at around 10% of 15-24 year olds who currently are, and are likely to remain, relative non-users of the internet (CLG, 2008). Secondly, that in terms of age, the oldest population groups tends to have considerably less access and there are age-related factors here in addition to those of income. At the same time, the older age groups tend to be at the core of recent growth in internet access and use even though they are still less likely overall to have access (CLG, 2008). It is the case that internet access at home is less likely for older people in terms of the all-adult average but that those from these groups who do have access tend to make more use of it (90 minutes per day) in contrast to the UK average (one hour per day). Gender also seems to have a role to play with '29% of the time spent online by over-65s accounted for by women' (CLG, 2008: 24).

Age Concern (2009) conducted a qualitative study of older non-users of the internet to try to reveal the sources of non-usage. Concerns in terms of skills, knowledge and confidence were important and there were very few *refuseniks*. The 55-64 age groups were more receptive and confident about internet use and many within this group had had higher levels of exposure in their working lives. Within the non-user group, those with long-term health conditions, or with mobility impairments, or who were living in remote or rural locations, or and in particular, those with concerns about affordability were less likely to have access and to be regular users. The study found that those who were receptive tended to be younger and to have affordability issues to do with the cost of the initial outlay, uncertainty about how regularly they would use it given the cost for users on a fixed income like a pension. The older groups tended to be more dismissive of the value and usefulness of the internet.

4.3 Disability

With an estimated 10 million disabled people in Britain, differential access to, and use of, the internet by disabled people constitutes an important problem. This is even more the case when taking into account the multiple disadvantages which disabled people experience in terms of employment, income, education and so on (Williams et al., 2008). As the Digital Britain Report found (BIS/CMS, 2009), in 2008 only 42%, 32% and 35% respectively of people with visual, hearing and mobility disabilities had broadband access at home compared with 60% of the general population. At the same time, the collapsing of different types of disability into one category makes it very difficult to identify the kinds of situations faced by people living with very different disabilities and how this interacts with internet access and use. Of central importance to consideration of the experience of disabled people in accessing the internet is the question of which kinds of disability seem to matter in relation to both access and use.

A study of USA data on internet access and use (Dobransky and Hargittai, 2006) cautioned against assuming that disability acts in a uniform way; they found that people with hearing disabilities and limited walking ability were as likely to use the internet as the general population. For people with access problems in terms of sight issues, it is the need for assistive technologies and modifications to web content which are relevant. The cost of Braille interface machines combined with the sense that people with disabilities tend to have lower incomes, provides a compelling explanation of ways in which particular disabilities can influence issues of access and use. Adaptive hardware and software is costly, the public provision for internet access may itself constitute a physical barrier to access for disabled people, employment status may not provide the kinds of proxy access to the internet which other groups enjoy. Web providers are required to comply with guidelines in terms of content accessibility (to avoid cluttered and complex web page designs, confusing navigation systems, colour and contrast, audio descriptive content and so on). The extent to which they do not do so constitutes a barrier to access for some disabled people and there are questions to be asked therefore about how compliance is monitored and regulated in the light of equal access law for the disabled.

5. Conclusion

In terms of the protected equality groups, a number of conclusions can be drawn with regard to internet access. Firstly, the 30% of the population without internet access (and the higher percentage of those without broadband, 37%) is determined primarily by age and socio-economic status. Patterns of internet access display the clearest stratification in terms of age with precipitous drops for the over 64 age group. The costs of internet access are important for lack of access and use. This contributes to the different levels of access for the ABC1 and C2DE groups and interacts with other features of social difference with regard to educational qualification. Secondly, men and women have broadly similar patterns of access. Thirdly, in terms of ethnicity, levels of internet access tend to be higher for the minority ethnic groups than for the UK population as a whole and differences in access and use by age and socio-economic status for the minority ethnic groups mirror those of the total UK population. Fourthly, in terms of disability, there are emerging patterns in terms of the impact of type of disability with differential access for those with visual, hearing and mobility disabilities.

However, research into differential use of the internet is still in its earliest stages. There are some emerging findings with regard to kinds of use by gender and ethnicity but the ambition to track the positions of the protected minority groups with regard to Selwyn's

(2002), typology of consumption activity, savings activity, production activity, political activity and social activity, is difficult to achieve given the current state of the evidence base. The ONS Opinions (Omnibus) Survey's *Internet Access Module* is currently too limited in terms of its sample size and its survey questions to allow for the more robust investigation and suitable disaggregation by equality group which would contribute to providing a more insightful picture of potentially important differences in internet use.

It remains the case, therefore, that internet access and use need to be seen as both reflections of, and potential contributors to, social exclusion. The correlation between poverty, educational inequality, employment opportunities and geography, and internet access and use are clear. What remains at question is the extent to which internet access and use are able to contribute to the amelioration of such inequalities rather than amplifying them.

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ⁱⁱ The question on disability is: 'do you have any long standing disability? By long standing I mean anything that has troubled you over a period of time or that is likely to affect you over a period of time?' (Omnibus Survey Questionnaire p. 12). As is often the case in UK surveys of this kind (Purdam et al., 2008), the questions are currently unhelpful in terms of addressing the kinds of disability which might be relevant for more complex understandings of the experiences of disabled people in relation to internet access for example.