DIGITAL WALES, DIVIDED WALES

Victoria Winckler
The Bevan Foundation
Aneurin Bevan House
40 Castle Street
TREDEGAR
NP22 3DQ
www.bevanfoundation.org

Supported by BT

July 2009

Acknowledgements

The Bevan Foundation gratefully acknowledges the financial assistance of BT towards the costs of this project.

The views in this report are those of the author and do not necessarily reflect the views of the funders nor are they necessarily the views of the Bevan Foundation's Trustees or members.

The Bevan Foundation
Innovation Centre
Festival Drive
Victoria Business Park
Ebbw Vale
Blaenau Gwent
NP 23 8XA

Tel. 01495 356702
Email: Info@bevanfoudation.org
www.bevanfoundation.org

ISBN 978-1-904767-37-4

Report Author: Victoria Winckler
Date: 26th June 2009

SUMMARY

1. Broadband access is changing the economy and society and is now regarded as 'essential' by many people as well as being a key plank of UK Government policy. The main concern in the late 1990s and early 2000s was infrastructure. However investment and the Universal Service Commitment given in the *Digital Britain* report mean that the question of broadband access is en route to being resolved.

2. This report reviews existing research and data on broadband take-up in Wales. It finds that in Wales 99% of households have access to broadband, and approximately 60% take it up.

3. There are marked geographical variations in Wales with the south Wales Valleys and parts of large towns having the lowest rates of broadband take-up. Rural Wales has amongst the highest levels of take-up in the UK.

4. The 'digital divide' closely parallels social divisions. Older people, lower social groups, and disabled people are much less likely to take-up broadband and internet than other people. Crucially, broadband take-up amongst these groups is *lower* than amongst the least well-connected parts of Wales, yet it excites much less attention.

5. The Welsh Assembly Government is encouraging digital inclusion through its Communities 2.0 project (which supersedes Communities @One) and through encouraging the learning of ICT skills.

6. It is not clear whether these initiatives are sufficient. The question remains of what more should be done to ensure that *availability* for all becomes meaningful *take-up* for all.

1. INTRODUCTION

Broadband internet is changing the economy and society in ways that were unthought-of a decade ago. From being the province of the few interested in IT, it has become a near necessity for a substantial proportion of the population. Goods and services are increasingly delivered via broadband, including everything from grocery shopping to music and TV programmes to claiming JobSeekers' Allowance and applying for jobs.

However, not everyone has had access to broadband – certain communities and some individuals in Wales, as elsewhere in Britain, have had long-standing difficulty with broadband connection. The plight of these, often rural, communities has attracted much attention over the years, and has been addressed in the recommendations on the Universal Service Commitment recently made in the UK Government's *Digital Britain* report. Considerably less attention has been given to households and individuals who do not take up internet or broadband.

It was for this reason that BT has worked with the Bevan Foundation to review existing research to draw together the factors which contribute to low broadband take-up amongst disadvantaged communities in Wales. These communities include those in the south Wales valleys but also those in other areas of Wales.

This report reviews the relevant data and literature and highlights key finding.

2. ACCESS - INFRASTRUCTURE

The main concern of public policy during the late 1990s and early part of this century was physical access to broadband. As well as the investment made by the telecoms industry in providing broadband access to increasing numbers of households, a number of government and private sector initiatives aimed to roll

out broadband connections to areas that were deemed not to be commercially viable.

The Welsh Assembly Government has a number of initiatives to improve broadband infrastructure:

- Regional Innovative Broadband Support Scheme (RIBS) – broadband enabled all areas covered by the 'non-viable' 35 telephone exchanges in Wales, and is now addressing areas outside the scope of exchange enablement (so-called not-spots).[1]
- Public Sector Broadband Aggregation – aggregates demand from public sector organisations and is delivering a high speed, secure network for higher education and unitary authorities, and NHS users.
- FibreSpeed – provides an open access network to 14 business parks in north Wales, launched in December 2008.

The question of broadband access has been moved further forward by the Government's *Digital Britain* final report. This report confirms the Government's 'Universal Service Broadband Commitment' that virtually all households will be broadband connected at 2Mbps by 2012. It also makes a commitment to bring 'Next Generation' broadband to the third of the population who will not be served by the market by 2017 (DBR page 64) and to 100% coverage by mobile broadband. Technical interventions in the household such as i-plates, changes to home wiring and use of the right router can help to improve access, along with changes to technology around the access network e.g. broadband extension technology and fibre-to-cabinet strategies can all help to improve access, with a tiny residuum of households requiring satellite access.

[1] For example, the Welsh Assembly Government announced in December 2008 work with BT to "broadband enable" the communities of Reynalton, Saundersfoot, Llanpumsaint and Bronwydd Arms, Cilcennin in Ceredigion and Gwytherin in North Wales. http://new.wales.gov.uk/news/topic/business/2008/2817014/?lang=en

The progress made in Wales to date and the proposed Universal Service Commitment does not, however, herald an end to the debate about connectivity. Issues remain about speed particularly for those with connections further away from exchanges or where local factors affect services. Ofcom (2009a) found that whilst average UK broadband speeds were 3.6 Mbit/s, one in five of those who subscribed to supposedly fast services of up to 8 Mbit/s actually received less than 2 Mbit/s. It found that consumers in Wales on average received the slowest speeds (along with the North East of England and Scotland). Even with the Universal Service Commitment, there will be a significant difference between those areas with 2 Mbit/s connections and those with super-fast connections of 50 Mbit/s.

However, there is another aspect of access to broadband which is arguably more important than infrastructure, namely people's take-up and use of the internet.

3. ENGAGEMENT - THE INTERNET AND BROADBAND

The UK Government's *Digital Britain* report (Department for Business, Innovation and Skills, 2009) argues that digital technology is 'rapidly becoming an essential facility for citizens and consumers in a modern society'.[2] It states that digital technology, and particularly the internet, is the basis of services and devices that most people now take for granted, e.g. MP3 players, web-enabled mobile phones, online gaming, social networking, multi-channel television, digital radio and pod casts, as well as increasingly being the means of accessing public services and information. However, not everyone accesses the internet.

[2] p.28

3.1 Broadband take-up in Wales

There is no doubt that the proportion of households who access the internet via broadband has increased dramatically in recent years. The Welsh Assembly Government state that broadband take-up rose from 15% of households in 2004 to 58% in 2008 (Welsh Assembly Government, 2009).

Beneath this headline figure, however, are a number of different estimates of internet and broadband take-up in Wales, each of which provides different results:

The **Welsh Consumer Council** has undertaken annual surveys of internet usage since 1999. Its 2007 survey estimated that 55% of all households took up the internet and of these, 90% had broadband (WCC, 2007a). Its successor body, Consumer Focus Wales, plans to undertake a further survey for 2009.

The Welsh Assembly Government's **Living in Wales Survey** is an annual household survey, which for each year in 2004 - 2007 included ownership of personal computers and internet take-up. The latest results, for 2007, estimated that 68% of households have a personal computer, 86% of which have the internet. Of these, 84% access it via broadband (Welsh Assembly Government, 2008a), giving a similar overall figure for the proportion of households with broadband to the WCC survey.

The **Office for National Statistics** also produces annual estimates of internet take-up. Its latest estimate puts the figure for internet take-up even higher, at 67% of households in Wales in 2008 (compared with 65% of households in the UK (ONS, 2008). This survey does not give a sub-UK breakdown of broadband connections, and quotes a UK figure of 56% of all households having broadband compared with 9% which have dial up and 35% with no internet connection.

Ofcom also undertakes a survey to inform its annual statutory reports on nations and regions. **Ofcom's 2008 survey** generates a very different picture to other surveys. It estimates broadband take-up in Wales for 2006 was only 45% of households, and states that this is the lowest rate of take-up in the UK (Ofcom, 2008a). This is 22 percentage points lower than the ONS survey's figure for all internet take-up.

The variation in findings is significant. It means that, despite the various surveys, we do not have a clear and reliable measure of broadband take-up in Wales. In particular, it is cause for concern that the industry regulator's findings are so different to those of other organizations including government statisticians. We understand that discussions are underway to establish the possible reasons for the variation in results. An obvious conclusion is that a reliable and commonly-supported estimate of broadband take-up should be produced as a matter of urgency.

3.2 Geographical variations within Wales

Much of the debate about the 'digital divide' in Wales has focused on geographical variations in broadband take-up, in particular those between rural and urban areas. This largely follows the issues about connectivity. However, if the question of take-up rather than physical infrastructure is considered, a rather different picture emerges (Table 1).

Table 1 Responses to the question 'are you connected to the internet at home?'

Percentage of Households responding yes	**2002**	**2003**	**2004**	**2005****	**2006**
North	28	38	42	51	43
Mid West	42	44	41	34	49
West South	34	33	42	39	48
Cardiff & SE	41	38	41	48	53
Valleys	27	34	37	26	40
ALL WALES	**35**	**37**	**41**	**41**	**47**

** 2005 data should be treated with caution.
Source: Welsh Consumer Council, 2004, 2007b

Welsh Consumer Council surveys (WCC, 2004, 2005, 2007a, 2007b) have consistently shown that people living in the south Wales Valleys are less likely to have a household internet connection than those in other parts of Wales (49% did so in 2007 compared with 64% of those living in Cardiff and south east Wales). The 2007 survey also shows that Valleys residents are slightly less likely to take-up the internet via broadband than elsewhere (87% do so compared with 95% in other areas of Wales). Taken together, these features mean that overall take-up of broadband in the Valleys is considerably less than in other parts of Wales - just 42% of households in the Valleys have broadband compared with 60% in Cardiff and south east Wales (WCC, 2007a). Table 1 shows responses to the question 'are you connected to the internet at home' for each region of Wales for the period 2002 – 2006.

A similar picture emerges from the Living in Wales survey (Welsh Assembly Government, 2008a). This does not analyse access to a personal computer or internet use by geographical location but by type of settlement – namely urban areas with population of more than 10,000 population; town and fringe; village; and hamlets and isolated dwellings. The 2007 survey found that a greater proportion of households in rural areas had the internet than in urban areas: two thirds in 'hamlets and isolated dwellings' had the internet compared with just over half (52%) in urban areas with a population count of 10,000 or above.

Most recently, Prof Ben Anderson (2009) has developed ways of estimating small area (i.e. smaller than local authority) spatial distributions of variables not collected by census or other surveys. This includes estimates of the percentage of households in each English and Welsh Lower Super Output Area[3] (LSOA) which had the internet in 2001/2 and in 2005/6.

[3] Small geographical areas used for statistics. They can be aggregated into wards / electoral divisions.

Prof Anderson has identified a relatively small number of small areas where internet take-up is estimated to fall below 40%, and these are shown in Table 2. Interestingly, these areas are mainly ***outside*** those groups of local authorities identified by the Welsh Consumer Council as having low levels of internet take-up – five are in Swansea, three are in Newport and six are in North Wales. They are, however, mostly areas defined as disadvantaged in the Welsh Index of Multiple Deprivation. It should be noted that these estimates are 'simulated' rather than actual findings, and that estimates are for 2005/06, since when take-up has increased rapidly.

The findings from these three surveys are confirmed by BT's figures on household take-up of broadband. In Pembrokeshire, Conwy, Ceredigion and Anglesey more than 50 per cent of households take-up ADSL broadband. Powys has also recently reached take-up of 50%. This level of take-up is higher than almost any English county (only the Scilly Isles in England is above 50%) and represents a total of nearly 100,000 homes and businesses.[4]

[4] BT press notice 'Welsh counties lead UK broadband revolution', 22nd December 2008

Table 2: Welsh LSOAs with simulated household internet take-up rates of less than 40% in 2005/6

Local Authority	LSOA Number	% household internet take-up 2005/6
Swansea	022D (Sketty 4)	31.77%
Swansea	025A (Castle 2)	31.89%
Newport	018D	33.22%
Flintshire	004B	34.18%
Conwy	010C	34.29%
Cardiff	010D	35.79%
Denbighshire	001C	35.94%
Swansea	029C (West Cross 3)	36.99%
Newport	017B	37.25%
Newport	005A	37.97%
Neath Port Talbot	017D	38.42%
Swansea	029D (West Cross 4)	38.74%
Powys	013A	38.98%
Conwy	003D	39.46%
Merthyr Tydfil	001D	39.63%
Swansea	009A (Townhill 1)	39.64%
Flintshire	004A	39.69%
Wrexham	010B	39.91%

Source: Anderson (2009)

Given its importance, it is surprising that there is no single, reliable and up-to-date source of data on internet or broadband take-up for Wales as a whole. What data there is suggests that slightly more than half of all households in Wales take up broadband at home. Crucially, and contrary to popular belief, all the evidence suggests that take-up is lowest in the south Wales Valleys, in larger urban areas, and in disadvantaged communities rather than in rural areas.

3.3 Socio-economic variations in internet and broadband take-up

Numerous studies both in the UK and elsewhere in the world have highlighted marked differences in internet take-up according to socio-economic characteristics. Take-up of the internet broadly parallels other socio-economic inequalities, and such is the close association between social and digital inclusion that one commentator noted:

> ‘‘demography is destiny when it comes to predicting who will go online’’
> *Pew Internet & American Life Project, 2003*

The following points about internet use in the UK illustrate these points:

- Men were more likely to use the Internet than women (75 per cent of men do so compared with 66 per cent of women in 2008) (ONS, 2008).
- Older people are the least likely to use the Internet. In 2008, 70 % of adults aged 65 plus stated they had never used it compared with a negligible number of 16 – 24 year olds and just 8% of 25-44 year olds (ONS, 2008).
- Adults under 70 who had a degree or equivalent qualification were most likely to have the Internet in their home, at 93 per cent in 2008. Those individuals who had no formal qualifications were least likely to have an Internet connection in their home, at 56 per cent (ONS, 2008).

- The higher an individual's income, the more likely he or she is to have used the internet. In 2006, fifty one per cent of adults with an income of £10,400 or less had never used the Internet. In contrast, 93 per cent with an income of £36,400 or more had used the Internet in the 3 months prior to interview, more than twice the proportion (43 per cent) of those earning £10,400 or less (ONS, 2006).
- There is some evidence to suggest that disabled people use the Internet less than non-disabled people. Ofcom's annual consumer experience reports (2008b) found that in 2008 only 42%, 32% and 36% respectively of people with visual, hearing and mobility disabilities had broadband access at home, as opposed to around 60% of the general population, echoing earlier findings (Piling et al., 2004).

Specific research on children and young people has found that not having access to the internet at home is strongly related to social class (BECTA, 2008). While 97 per cent of children from social class AB have internet access at home, only 69 per cent of children from social class E have this. Other disadvantaged groups include those whose main language is not English and children in lone parent households, who are also less likely to have internet access than others (Peters, et al., 2007).

The exception to the association between internet use and disadvantage is ethnicity. Overall, people from ethnic minority groups are 'at the forefront of digital device take-up and use', including use of the internet. There are variations between different ethnic groups, however, and by age within ethnic minority groups (Ofcom 2008b).

3.4 Socio-economic variation in take-up in Wales

There is relatively limited information on socio-economic characteristics and internet take-up in Wales. Nevertheless what is available suggests that there is a

marked divide in take-up between more advantaged and less advantaged households and individuals, which broadly parallels UK findings.

The most recent Welsh Consumer Council survey (2007a) found that more than twice as many managerial and professional households have broadband than routine and manual workers (82% of ABs compared with 38% of DEs). Similarly, the Living in Wales survey (Welsh Assembly Government, 2008) found that working households were nearly twice as likely to have internet access as non-working households (73.1% compared with 42.1%). Of those with access, working households were slightly more likely to take up broadband than non-working households. However the difference in broadband take-up between social groups is not marked (WCC, 2007a) and much of the overall gap in broadband take-up between higher and lower social groups is because of differences in internet use per se.

The Living in Wales survey data[5] shows that only 5.9% of people in higher managerial and professional occupations had never used the internet, compared with nearly a quarter of people in routine occupations. People in higher social groups used the internet more frequently than people in lower level occupations. There is much more data in this survey e.g. on use of the internet to contact public sector organizations, politicians, private organizations, technology skills, awareness of broadband speeds, frequency of internet use both inside the home and elsewhere, and reasons for not having broadband access. However we are not aware that this data has been analysed to date and doing so has been outside the scope of this project.

It is worth noting that the gap between social groups' take-up of broadband has narrowed over recent years (WCC, 2007a). In 2004 only 22% of people in social group DE had taken up the internet compared with 69% of those in social group

[5] Living in Wales survey 2007 Tables on Internet. Available at: http://wales.gov.uk/docs/statistics/2008/081210liw07interneten.xls?lang=en

AB, but by 2007 this figure had risen seventeen percentage points to 39% of social group DE compared with 82% of those in group AB. Nevertheless, the gap between social groups remains substantial.

Age is also an important determinant of internet and broadband take-up. According to the Welsh Consumer Council, in 2007 just 26% of people aged over 65 had an internet connection compared with 69% of people aged 35 to 44. The Living in Wales survey in 2007 also found low levels of internet and broadband take-up amongst older people. Just a third of married couple pensioner households and only 13.0% of single pensioner households had the internet, and of these a slightly lower than average proportion (65.7% of married couple pensioners and 70.2% of single pensioners) accessed it via broadband. The survey also found that 78% of respondents in 'non-working age households' had never used the internet. The gap in internet take-up between younger and older people, particularly those over 55 years, appears to be closing slightly (WCC 2007). However the gap remains substantial and should not be ignored.

The only evidence on disability and internet take-up in Wales is in the Welsh Consumer Council's 2006 survey (Welsh Consumer Council, 2007b), which noted that people with a limiting long term illness or disability were less likely to have taken up the internet than non-disabled people – 31% used the internet compared with 53% of non-disabled people.

The 2007 Living in Wales survey tables[6] provide data on internet take-up and tenure, and show that households in owner occupied or privately rented accommodation were much more likely to take up the internet than local authority renters (Table 3). However there is much less variation in those who access the internet by broadband – perhaps surprisingly, the highest levels of broadband take-up is amongst social renters especially housing associations.

[6] Living in Wales survey 2007 Tables on Internet. Available at: http://wales.gov.uk/docs/statistics/2008/081210liw07interneten.xls?lang=en

Table 3 Internet Access by Tenure

	Percentage of households with internet access	Percentage of households with internet access via broadband
Owner-occupied	60.4	83.5
Local authority	24.2	86.9
Housing Association	35.5	88.2
Private rented	52.4	85.9
Total	54.4	84.0

Source: Living in Wales Survey 2007 Internet, Table 4, Available at: http://wales.gov.uk/docs/statistics/2008/081210liw07interneten.xls?lang=en

These figures, taken together, demonstrate that there is a marked 'digital divide' in Wales. However, it is a divide which is socio-economic rather than geographical, and which reflects the many other socio-economic divisions in Welsh society rather than being a new and different form of inequality.

3.5 Other access technology

Most survey evidence focuses on internet access from home. However a growing proportion of people use computers and access the internet elsewhere, either using mobile technology or using computers located outside the home. In 2007, the Living in Wales Survey found that 13% of working households across Wales said they did not have a personal computer at home because they used a computer at work. The Welsh Consumer Council 2007 survey also found that although home connections were the most popular method of accessing the internet (used by 91% of interviewees), use of a computer outside the home e.g. at work, school or in a library was used by 23%. A third of people living in the Valleys used a computer outside the home compared to just 14% of people in

Cardiff and south east Wales.

There are of course other means of accessing the internet. In 2007 17% of those interviewed said they had used the internet via a mobile phone (Ofcom 2008a). The Welsh Consumer Council (2007) found that a slightly smaller proportion (11%) had used the internet via mobile phone or GSM network, 5% through digital television and 3% via a games console. However people living in the Valleys were less likely to have a mobile phone or digital television than in other parts of Wales.

3.6 Reasons for low take-up

Recent research by Ofcom (2009b) looked at why people do not have internet services. The main reason given by respondents was that they did not want to use the internet, cited by more than four out of ten. More than a third of this group was simply not interested in the internet – their defining feature was, according to the report, indifference. Those not interested in using the internet were mainly older or retired people.

A further 30% of respondents said that the internet was too expensive or they did not have a computer, with more than half of these respondents coming from households in social group DE.

These findings are paralleled in two surveys in Wales which have looked at the reasons why people do not have a personal computer at home (the Living in Wales survey) or use the internet (Welsh Consumer Council). The main reason given by respondents for not having a personal computer is that they do not want one – 80% of those without a computer said this. Similarly, 33% of people who do not use the internet in the WCC survey said they did not want to use it and a further 17% said they do not need to use it. However, there are substantial variations by age - 95% of ‘non-working age households’ without a personal

computer at home stated that they had 'no interest or don't need a computer' in 2007, compared with 65.7% of workless households and 57.4% of working households. Similarly people in the 65 and over age group were most likely to say that they just don't want to use the internet: nearly half (49%) of people in this age bracket responded with this answer compared to the next highest proportion of 29% for the 45 to 54 age group, decreasing to 15% of people aged 16 to 24.

Local loop unbundling and the regulatory framework has allowed competition in broadband provision and driven down prices. Nevertheless, cost (both of broadband services and a personal computer) is an issue for some households. In the 2007 Living in Wales survey, 11.8% said a personal computer was 'too expensive'.[7] However the proportion identifying cost as a barrier was much higher for working age households - 28.9% of workless households and 18.8% of working households gave cost as a reason for not having a personal computer. A similar pattern was evident in the reasons for not taking up the internet. Overall, 12% said that the equipment needed to access the internet was too expensive, with people in social group C2DE being twice as likely to say that cost of equipment or of going online is an issue compared with people in social class ABC1 (20% compared with 9%). These findings suggest that perceived cost is still a significant barrier to accessing the internet or broadband for people on lower incomes. How the actual costs of going on line compare with the costs of, for example, pay TV is an issue for further exploration.

Other reasons given for not having a personal computer or not using the internet were that it was too complicated (9%) or worries about spam or viruses (2%), and complexity of technology or lack of knowledge (Welsh Consumer Council, 2007).

[7] Source: Living in Wales Survey 2007 Internet, Table 22. Available at: http://wales.gov.uk/docs/statistics/2008/081210liw07interneten.xls?lang=en

3.7 Conclusions

Internet use in general has increased rapidly in Wales so that just over half of all households now use it at home, although there are marked variations between different parts of Wales with take-up in rural Wales being, perhaps surprisingly, *higher* than in other areas.

More marked than geographical variations, however, are variations between different social groups in Wales. As in the UK as a whole, take-up of the internet is broadly shaped by income and socio-economic status, age, gender, qualifications, housing tenure and disability. It is likely that it is the combination of these factors, i.e. socio-economic disadvantage, that accounts for variations in access between areas, rather than any reasons specific to particular places.

Amongst internet users, broadband take-up has increased rapidly and now accounts for about 9 out of 10 connections. The rest use dial up. Broadband take-up varies between different social groups and different parts of Wales much less than internet take-up. The critical determinant of broadband use thus seems to be whether or not an individual uses the internet *per se.* It is the likelihood of using the internet that bears the marks of social and economic disadvantage.

4. DOES USING THE INTERNET MATTER?

Different social groups' use of the internet would not matter if internet use did not bring with it significant social, economic and cultural advantages.

A number of studies have looked at the different uses people make of broadband (for example ONS, 2008). One of the most recent (Communications Consumer Panel, 2009) found that people placed most value on accessing information, communicating and carrying out transactions. It also found that a growing

proportion of people are now using the internet for relatively new entertainment services, such as downloading and streaming TV content. Research by the Welsh Consumer Council (2007a) found a similar pattern of internet use in Wales (see Table 4).

Table 4 Uses of the Internet in Wales

E-mailing / keeping in touch	78%
Research / information, for example holidays, travel, family tree, medical conditions	69%
Buying / selling online	52%
Hobbies	36%
Banking	31%
Downloading music	30%
Social networking / sharing information e.g. MySpace, chat forums	28%
Playing games	23%
Home working	22%
Job hunting / recruitment	20%
Downloading entertainment / films	13%
Uploading content e.g. Youtube	10%
Online betting	5%

Source: Welsh Consumer Council 2007a

Non-users of the internet face increasing disadvantages. Those not using the internet are unable to access goods and services that are delivered solely digitally, from price comparison services to internet-only offers. They cannot access certain information, be it about health conditions or what is on locally or their bank account balance, nor receive the latest information e.g. news and

weather updates. They may also suffer financial penalties as certain goods and services offer on-line discounts e.g. gas and electricity services, or experience delays sending information by post rather than submitting it on-line. Last, but by no means least, people miss out on leisure activities and creative development which the Digital Britain report (Department for Business, Innovation and Skills, 2009) argues is increasingly part of the "social glue" for friends, families, communities of interest and society as a whole.

The Consumer Research Panel (2009) found that it was widely believed that very soon people without broadband would be at a significant disadvantage, as more and more services are offered on-line. They concluded that 'in the not-too-distant future *not* having broadband at home is expected to mean reduced options and financial penalties.'

For these reasons, the Digital Britain report concluded that broadband is 'an essential facility for citizens and consumers in a modern society', as important as utilities such as gas and electricity. People without broadband will be at a 'significant disadvantage'.[8] Given that those without broadband are already likely to be disadvantaged e.g. by low income or poor educational qualifications, lack of access to the internet does not just reflect their social disadvantages, it *reinforces* them.

[8] p. 30

5. PROMOTING DIGITAL INCLUSION

As well as action on infrastructure, the UK and Welsh Assembly Governments are actively promoting digital inclusion.

5.1 Communities @One and Communities 2.0

The Welsh Assembly Government established Communities @One in 2006 to help people to use technology in the communities that needed it most. The project provided support to community groups and voluntary sector organisations, enabling them to engage with technologies in ways that were relevant to their lives. It included a grant fund to help community and voluntary groups access the technologies that would benefit community members.

A recent evaluation of the programme (Welsh Assembly Government, 2008b) looked at twelve case-studies, nine examining activity in individual Communities First areas and three based on relatively large-scale projects. Three 'control group' areas were also examined for comparison.

The findings of the evaluation were broadly positive:

> "Communities @ One has succeeded in a way few initially expected ....which is remarkable given the relatively short timescale over which it has operated".

More than 200 projects succeeded in disbursing more than £7 million, without moving away from the original emphasis on supporting small community projects. Many of the projects offered new opportunities in terms of access to ICT and to the skills and confidence to use it too, mainly to individuals who otherwise had little exposure to such technology. The projects were diverse, ranging from drop-in facilities open to the community to more innovative projects working with

voluntary and community groups to apply ICT to their core activities; this was also intended to stimulate an interest on the part of individual members with digital technologies as a result.

Communities 2.0 was announced early in 2009 and will follow a similar approach to Communities @One, with nearly £20 million over six years being allocated to voluntary and community groups, with increased emphasis on social enterprise and the sustainability of projects.

5.2 ICT Skills

Attaining ICT skills in Wales is a fundamental part of the curriculum framework for 3-19 year olds (Welsh Assembly Government, 2008c), and the recent Welsh Assembly Government Schools ICT Strategy Group report (Welsh Assembly Government, 2008d) highlighted some of the issues faced when trying to improve ICT attainment for this group, including:

- the need to address the inequalities in the provision of hardware, connectivity and technical/advisory support for schools across Wales;
- the need to ensure that learners are not disadvantaged through lack of access to technology beyond school;
- the assertion that ICT should be a vehicle for promoting inclusion, not for widening gaps in opportunity and outcomes, recognising that not all learners have access to ICT outside schools and are potentially at a disadvantage because of this.

One of the main portals for teachers and others is the National Grid for Learning Wales (NGfL), which has recently been revamped to reflect more current, collaborative technologies. The Strategy Group report also highlighted the fact that innovation through the use of technologies such as wikis, blogs, open source content management platforms such as Moodle and even mobile technology was

becoming more common in many schools, as both teachers and students engage and take more control of their ICT use. It is interesting to note also the fact that according to Estyn (Estyn, 2007), the use of ICT in Primary schools is currently increasing rapidly. Atkins (2006), focusing on the benefits of broadband for Wales, shows clearly that there is a real dividend to be gained from investing in ICT in schools and colleges.

Work-based learning through ICT is increasingly part of the delivery of a wide range of skills, including communications, leadership and management, foreign language training, IT (both for technology professionals and those who use IT in their day-to-day jobs), health and safety and other company-specific programmes (Overton, et al., 2007). However, the extent of use of these programmes is difficult to gauge, and the indications are that up to 35 per cent of work-based learning providers can be classified as e-enabled, but around one quarter of providers are unlikely to be realising the benefits of technology-supported learning (BECTA, 2008). Again recent reports show clearly that there would be further benefit with developing the use of broadband and ICT generally in this area (Atkins, 2006).

6. CONCLUSIONS AND NEXT STEPS

Given the proposed Universal Broadband Service Commitment and NGA route map in the *Digital Britain* report, the key question facing Wales is not one of infrastructure but one of engagement. Broadband take-up has undoubtedly increased rapidly, but take-up amongst some socio-economic groups – particularly amongst the lowest income households and amongst older people – remains low. Whilst there is geographical variation in take-up within Wales, this seems to reflect patterns of socio-economic disadvantage rather than any geographical factors per se. It is worth pointing out that whilst take-up rates of less than 40% in a handful of LSOAs in Wales generates concern, take-up amongst social group DE is at the same level whilst for over-65s it is as low as

26%. The low take-up amongst particular groups is as issue that is undoubtedly worth exploring further.

The overwhelming reason people give for not accessing the internet is that they do not want to. However this reason inevitably includes lack of awareness, lack of skills and lack of opportunity as well as simple 'choice' and should not be taken at face value. It is also worth noting that perceived cost was a factor in lack of access to the internet in a substantial minority of households, particularly working households, and this too may be a factor for further consideration.

Last, but by no means least, is the question of skills, services and content. The increasing provision of services only via the internet, or the premium paid by users of non-internet services, means that those without access will find it increasingly difficult to obtain certain services, will pay a penalty for goods and services bought off-line, and will be increasingly excluded from the mainstream of society. Very often little consideration is given by those designing internet services to access for those without the internet. Whilst libraries and community centres have a role to play here, the extent of such services is not clear nor is their ability to guide and support novice users.

The question remains, therefore, whether public policy and action to encourage digital inclusion are sufficient and, if not, what more should be done.

REFERENCES

Atkins. (2006). *Benefits of Broadband and the BBW Programme to the Welsh Economy.* Newport: Atkins Management Consultants.

Anderson, B. (2008) Memorandum submitted to the Welsh Affairs Select Committee Inquiry into Digital Inclusion in Wales Available at: http://www.publications.parliament.uk/pa/cm200809/cmselect/cmwelaf/memo/diw/ucdiw02402.htm

BECTA. (2008). *Harnessing Technology Review 2008:The role of technology and its impact on education.* Coventry: BECTA.

Communications Consumer Panel (2009) *Not online, not included: consumers say broadband essential for all.* Available at: http://www.communicationsconsumerpanel.org.uk/downloads/not%20online%20not%20included%20web.pdf

Department for Business, Innovation and Skills (2009) *Digital Britain, Final Report.* Available at: http://www.culture.gov.uk/images/publications/digitalbritain-finalreport-jun09.pdf

Estyn. (2007). *Better Schools Fund Provision for ICT in Schools .* Cardiff: HM Government.

Ofcom (2008a) *The Communications Market – nations and regions – Wales.* Available at: http://www.ofcom.org.uk/research/cm/cmrnr08/wales/

Ofcom (2008b) *The Consumer Experience 2008 Research Report*. Available at: http://www.ofcom.org.uk/research/tce/ce08/research.pdf

Ofcom (2009a) '*Ofcom reveals UK's average broadband speed'* Available at: http://www.ofcom.org.uk/media/features/brspeeds

Ofcom (2009b) *Accessing the Internet at Home – A Quantitative and Qualitative Study Among People without the Internet at Home*. Available at: http://www.ofcom.org.uk/research/telecoms/reports/bbresearch/bbathome.pdf

ONS (2006) *Internet Access 2006: Households and Individuals*. Available at: http://www.statistics.gov.uk/pdfdir/inta0806.pdf

ONS (2008) *Internet Access 2008: Households and Individuals*, Available at: http://www.statistics.gov.uk/pdfdir/iahi0808.pdf

Overton, L., Hills, H., & Dixon, G. (2007). *Towards maturity: Looking at the impact of e-learning in the workplace.* London: e-Skills UK.

Pilling, D., Barrett, P., and Floyd, M. (2004) Does the Internet Open Up Opportunities for Disabled People? York: Joseph Rowntree Foundation. Available at: http://www.jrf.org.uk/publications/does-internet-open-opportunities-disabled-people

Peters, M., Seeds, K., Goldstein, A., & Coleman, N. (2007). *Parental Involvement in Children's Education, London, DCSF.* London: Department for Children, Schools and Families.

Pew Internet & American Life Project. (2003). *The Ever-shifting Internet Population: A New Look at Internet Access and the Digital Divide.* Washington DC: Pew Internet & American Life Project .

Welsh Assembly Government, (2008) *Internet Usage in Wales: Results from the Living in Wales Survey* 2007, Statistical Bulletin 75/2008. Available at: http://wales.gov.uk/docs/statistics/2008/081210sb752008en.pdf?lang=en

Welsh Assembly Government. (2008b). *Evaluation of the Communities@One programme.* Cardiff: Welsh Assembly Government.

Welsh Assembly Government. (2008c). *Skills framework for 3 to 19 year-olds in Wales.* Cardiff: Welsh Assembly Government.

Welsh Assembly Government. (2008d). *Transforming Schools with ICT: The report to the Wales Assembly Government of the Schools ICT Strategy Group.* Cardiff: Welsh Assembly Government.

Welsh Assembly Government (2009) Memorandum submitted to the Welsh Affairs Select Committee Inquiry into Digital Inclusion in Wales, Available at; http://www.publications.parliament.uk/pa/cm200809/cmselect/cmwelaf/memo/diw/ucdiw802.htm

Welsh Consumer Council (2004) *Internet inequality in Wales: update 2005.* Cardiff: Welsh Consumer Council

Welsh Consumer Council (2005) *Internet inequality in Wales: update 2005*. Cardiff: Welsh Consumer Council

Welsh Consumer Council (2007a) *Consumers and ICT in Wales.* Cardiff: Welsh Consumer Council

Welsh Consumer Council (2007b) *Internet inequality in Wales: update 2006*. Cardiff: Welsh Consumer Council