





CHANGING MINDS • CHANGING LIVES

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# Introduction

Digital participation is a critical social justice issue of the 21st century. Digital can be the driver for greater social and economic equality but just as surely it can be the barrier to such equality too. The key question around digital technology is not what will be the scale and pace of future transformation. It is, “Who is being left behind in this digital revolution?”

Digital inequalities are most likely to be experienced by those who are already more likely to be deprived according to many other measures. There is an urgency to this issue too – with the pace of change and the level of digital disruption set to increase further in the coming years. We need significant action quickly to ensure that digital is a world which everyone can benefit from.

Digital technology is increasingly at the heart of how we function as a society. Over the past 20 years it has transformed how we work, communicate, consume, learn, engage and think. The digital world has brought many opportunities for improved wellbeing through more personalised services, cheaper goods and products, more choice, wider connections with others and radically improved access to knowledge and communication.

For many people, digital is the norm and benefits accrue to them on a daily

basis. However, the evidence has been clear for many years that the digital transformation is not without risks. These risks affect those who are digitally engaged – in relation to personal privacy, information quality and security and the pervasive nature of technology that impacts on life 24/7. But the risks are even greater for those who are not digitally engaged and are being left behind this revolution.

Those who are digitally excluded do not benefit from the great many advantages the technology can bring. They are more limited in their access to public services, to channels for civic and democratic participation, to a wide array of knowledge and information, to opportunities for cultural and social engagement, to the labour market and to opportunities for education and learning. Addressing these disparities is one of the great social challenges of our age.

**Who is being left behind in this digital revolution?**

# Digital Participation: A National Framework for Local Action



In our 24/7, interconnected world, few can doubt that the internet has the power to change lives.

For individuals, access to the internet brings new opportunities to meet others with similar interests and hobbies to learn, to find employment, to save money, to access and engage with health services and to keep in touch with family and friends. The advantages are increasing all the time as manufacturers develop machine-to-machine technologies that will increasingly enable people to control white goods, heating systems and other domestic appliances at a distance from a smart phone or other electronic device.

Health and social services are making good use of technology to support older people and those with long term conditions and disabilities at home. This improves quality of life and enables people to manage their conditions more effectively, allowing them to live at home for longer. The long held ambition of shifting the balance of care from hospitals to our communities is being realised through digital innovation.



**Scottish Government, 2014**

# The power of digital participation

The **transformative potential** of digital technology for individuals, communities, businesses and societies is widely recognised across the world.

The Royal Society of Edinburgh, in their Inquiry into Spreading the Benefits of Digital Participation, highlighted the following benefits for people in Scotland of being digitally engaged:

Enhanced education and training opportunities via online learning, enhancing skills, building employability and supplementing formal education.

New routes to find, apply for and secure jobs.

Greater flexibility in working practices and remote working, making people's lives easier (while also potentially supporting the sustainability of rural communities and small towns).

Improved levels of health, as a result of better connections with healthcare professionals and a technology-enabled shift to remote monitoring and the delivery of care in the home.

New channels and opportunities to increase social interaction.

Access to a vast swathe of information and resources, supporting the acquisition of knowledge.

These benefits align closely with the new **Digital Engagement Outcomes Dashboard**, recently published by the UK Government, which sets a series of outcomes for the UK to monitor – via baskets of proxy indicators – to assess the progress being made towards a digitally engaged society.

These outcomes set ambitions for digital technology in enabling people to: improve their employment prospects; improve their level of educational attainment; manage and save money; unlock their creativity and entrepreneurialism; live healthier lifestyles; communicate and connect with others; pursue leisure activities and entertainment; access public services more easily; and become more engaged with democratic and civic processes.

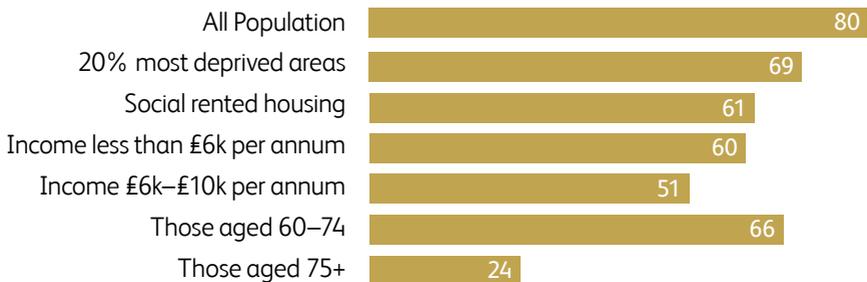
# The relationship between digital exclusion and social deprivation

While the significant benefits of digital technology are well established and understood, a key challenge for Scotland – as in most developed societies – is **ensuring that these benefits are enjoyed by everyone.**

Part of this challenge is providing the physical infrastructure to enable people to access the digital world. But even if this access is provided, there is significant work still required to ensure that all citizens in Scotland have the skills, confidence, motivation and resources to take advantage of digital technology. **This is the challenge of digital participation.**

At present those households or individuals who are most likely to be digitally excluded are the same households who are also most likely to be identified as disadvantaged or excluded according to a range of other socioeconomic indicators – as illustrated in Figure 1 below.

**Figure 1: Internet Access in Scotland**



Scottish Household Survey 2014

These figures are highly challenging for policy and practice, because **many of those groups who are currently digitally excluded could benefit disproportionately from the benefits of being online.** This might be through, for example, improved employment and educational opportunities; faster, more convenient access to public services; financial savings; reduced isolation and increased independence.

**At present, however digital technology – the great enabling and empowering force of the 21<sup>st</sup>**

**century – is further exacerbating existing, deep-rooted inequalities.**

And as technology gets faster and more sophisticated over the coming decades, bringing an ever greater array of benefits to those who can exploit it fully, the divide between those who are connected and those who are not will grow ever wider.

**Digital participation is now an issue of social justice.** Tackling the digital divide is critical to the future of a fairer Scotland.



Digital participation is an issue of social justice

# Breaking down social exclusion and understanding the link to digital participation

To tackle this divide effectively we need to build **a deeper understand of the relationship between social exclusion and digital exclusion.**

Are there particular facets of social deprivation that are more closely associated with being offline – and through improved understanding of these issues can we better tailor our policy and practice?

To help explore these questions the Carnegie UK Trust, with funding from Scottish Government, commissioned Ipsos MORI to undertake detailed secondary data analysis on the Scottish Household Survey (SHS).

## Demographic characteristics and digital exclusion

Firstly the researchers built a new research model that enables us to examine the contribution that different demographic variables make to the likelihood of a household having internet access.

Applying regression analysis, Ipsos MORI identified that **household working status; the level of the highest qualification responding adult in the household; and the age of the highest income householder** are all strong predictors of whether or not a household in Scotland has internet access.

Specifically:

- Households with a working couple are the most likely to have internet access while non-working single adult households are the least likely to have internet access.
- The more qualified the respondent is, the more likely the household is to have internet access.
- The younger the highest income householder, the more likely that a household will have internet access.

In addition to these three factors, whether or not a household had **access to a car; housing tenure, whether a household has children; and income level;** are also statistically significant predictors of whether a household has internet access or not. In these categories, households without cars; households in social rented accommodation; households without children and lower income households are less likely to have internet access.

The research model found however, that **area of deprivation, urban-rural indicators, the gender of the highest income householder and whether or not anyone in the household has a long-term illness are not statistically significant predictors of internet access.** This, of course, does not mean that levels of internet access don't vary across these factors. In particular, 92% of those living in the least deprived area have internet access compared to 66% in the most deprived areas. However, since it is not a significant factor in the regression analysis, this suggests that differences in internet access by area deprivation are likely to be because of other factors, such as tenure, educational qualifications or income, that are associated with area deprivation.

These findings segment in a new way the contribution of different demographic characteristics to digital exclusion in Scotland and may assist

policy makers in targeting digital participation interventions.

Overall, the regression analysis found that between 33% and 52% of the variation in responses to whether or not a household has internet access can be explained by the statistically significant demographic factors.

### Different facets of social inclusion and digital inclusion

Alongside this demographic analysis, the data analysis by Ipsos MORI also found clear links between internet access and a number of different factors related to social inclusion.

Those who use the internet are more likely to have:

- Access to a car
- Taken a flight in the past 12 months
- A driving licence
- Been to a cultural event or place (cinema, library, live music) in the past 12 months
- Taken part in sport in the past 12 months
- Undertaken activities such as reading, dancing, singing, playing a musical instrument in the past 12 months
- Used council services in the past 12 months
- Volunteered
- Visited outdoors for leisure and recreation at least once a week

Conversely, those without internet access are more likely to have:

- Used a doctor once a month or more
- Used a post office once a week or more
- Used public transport once a week or more

These new findings **further augment the evidence base on the high level of correlation between social exclusion and internet access.**

The research also sought to examine whether internet access shaped patterns of exclusion independently of other factors such as age, income, or area deprivation.

The researchers grouped the long list of indicators into 7 broad groupings of social inclusion:

- Convenience of local services
- Use of local services
- Active living
- Transport
- Socially connected
- Mental health
- Long-term physical and mental illness or disability

They then carried out statistical analysis, including regression analysis, to explore whether internet access (or lack of) in a household was a significant explanatory variable in shaping patterns of social exclusion across the different indicators.

This analysis found that **in four of the seven indicators, there was a clear association with internet access, even after all other factors such as age, household type, etc, had been controlled for.** The four indicators where this association exist are in active living; transport; mental health and being socially connected.

**Finding online content that relating to hobbies can be a highly effective approach to digital participation**

The links were strongest for the ‘active lifestyle’ indicator – defined as going to cultural events, using council services, undertaking activities such as reading or music, taking part in sport and volunteering. Those who take part in such activities are significantly more likely to have internet access than those who don’t, even after other demographic and socioeconomic indicators such as education levels, income levels and employment, are taken into account.

We need to find new ways of engaging with those who remain digitally excluded

**This does not necessarily mean that internet access leads to a more active lifestyle (the causal effect could work the other way), this is highly encouraging for policy, which has identified and supported the importance of ‘personal hooks’ and hobbies as a key mechanism for encouraging people to use and explore the internet for the first time.**

Finding online content that relates to hobbies can be a highly effective approach to digital participation. Everyone has certain interests and all interests have online content available that might amplify them.

**A continuation of this approach to**

**tackling digital participation appears likely to be effective, to reach out to all those who currently take part in these ‘active lifestyle’ activities but who are not yet currently digitally included.** If the relationship is a causal one and internet access does enable active living, then the health and wellbeing benefits of internet access become highly significant – with important implications for individual households and for public policy.

However, the finding also points to the need to find new ways of reaching out to those who don’t have active lifestyles – and who are also more likely to be digitally excluded. **Policy and practice need to identify the points of interaction that citizens have with a wide variety of public and charitable services and find the right mechanisms to support the development of digital skills at these points of interaction.**

The research findings in relation to mental health were calculated by converting WEBWBS scores into three bands – average; below average; and above average. While the main drivers of mental health and wellbeing in the statistical model were identified as the household working status, whether the household was managing financially and whether anyone in the household had an illness or disability, internet access still scored as a significant factor.

The internet is associated with better mental health and wellbeing, when all other factors are controlled for. Those with internet access are less likely to have lower than average mental health than those who do not have internet access.

The analysis in this study which looked at whether having access to the internet impacts on people's social connectedness focused on factors that might be viewed as 'local' connectedness – belonging to a neighbourhood, being able to rely on friends and having confidence in

the local police. However, even on this locally-focused scale, those with internet access were more likely to feel socially connected than those without access when all other factors were controlled for – albeit this association was relatively weak and might be stronger in relation to different measures of social connectedness.

Finally, although the wider wellbeing and social policy benefits of this are less immediately obvious, the data shows that when all factors are controlled for households with internet access are also more likely to have access to a car.



The internet is associated with better mental health and wellbeing, when all other factors are controlled for

# Conclusions

The research further highlights the significant correlation between digital exclusion and a wide range of factors associated with social exclusion.

It also demonstrates the contribution that different demographic factors make to digital exclusion – with working status, qualification level and age proving particularly significant. Tenure, income, and whether or not a household has children are also important determinants. Conversely, area of deprivation, gender and urban-rural indicators appear not to be drivers of digital inclusion.

The research also showed that those who do not use the internet are likely to: live less active lifestyles; have poorer mental health; and feel less socially

connected to their local area than those who do have internet access – even after all other demographic and socioeconomic factors are taken into account. While the strength of this association varies and the causal relationship in each case may work in either direction, the evidence from this analysis further highlights the role of digital participation in contributing to a number of major public policy goals.

**It supports the case for more activity to help everyone get online and enjoy the benefits that being digitally included can offer.**

Digital participation contributes to a number of major public policy goals



