

# The Impact of Digital Inclusion Initiatives in a Civic Context

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## INTRODUCTION

The benefits of technology are not without limits (Clayton & Macdonald, 2013), but for those who have access to high quality ICT, there are advantages. As more everyday services go on-line, there is a danger that those who are not accessing such channels become further excluded. The gap which exists between those who have access to ICT and those who do not is known as the digital divide (National Telecommunications and Information Administration, 1995). While the number of UK based non-users of ICT is declining (Ofcom, 2008), recent figures indicate that 40% of adults in the UK are still not accessing and using the Internet (UK Online Centres, 2007), and that digital exclusion is highly correlated with social exclusion.

The socio-economic profiles of non-users of ICT indicate that social class positions heavily influence access to the 'opportunity structure' of ICT (Selwyn, 2003). Those who suffer deep social disadvantage are up to seven times more likely to be disengaged from the Internet than those who are more socially advantaged (Helsper, 2008). There is a fundamental inequality in the current levels of access to ICT (Graham, 2002), which favours more advantaged social groups and more affluent and connected localities (Russell and Stafford, 2002). A pressing need has been identified to provide meaningful access to digital resources for excluded social groups and geographic communities. Although technology providers will be involved in any digital

inclusion solution, it is recognised that market forces alone cannot address this situation (UK Online Centres, 2007). Indeed, it is argued that market forces actually perpetuate the division by focussing their efforts upon more lucrative markets rather than fulfilling any moral obligation (Graham, 2002; Prime Ministers' Strategy Unit, 2005). While public intervention is not without its critics, who argue that differences in ownership will erode over time (Thierer, 2000; Compaine, 2001; Fink and Kenny, 2003), it is unlikely that those who are currently unable to adequately access ICT (or the skills necessary to use it to its potential) will become engaged without some form of state led intervention.

Digital inclusion is increasingly identified as a priority area in the UK, to assist access to opportunities (Prime Ministers' Strategy Unit, 2005). Although some key issues remain problematic, especially connectivity and take up of e-Government services (Ottens, 2005), the UK is recognised as leading in digital inclusion (Lupescu, 2009; Carter, 2009).

There has been much research on the topic of technology acceptance and diffusion (Rogers, 2003) with theoretical models such as the Technology Acceptance Model (Davis, 1989) now well accepted, and the last few years have seen a significant bolstering of the national digital inclusion agenda; however, there remains a lack of empirical research in a UK context (Phipps, 2000; Gaved & Anderson, 2006). This article examines the extent to which one UK city: Sunderland, has become digitally enabled and the impact of these

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activities. The article presents a city-wide study of the impact of local digital inclusion initiatives.

## BACKGROUND

The city of Sunderland is located at the mouth River Wear in the north east of England. The city is estimated to be home to a population of approximately 283,500 (ONS, 2011) making it the largest city in the region. As with many post-industrial urban areas in the UK, the late 20th century has been a period of socio-economic adjustment for Sunderland. This was a city which once boasted the biggest ship building yards in the world and extensive coal mining, glass and rope making industries, however, virtually all traces of these have now disappeared. Throughout the 1980s Sunderland witnessed higher than national average figures of unemployment and experienced a period of significant economic decline. By 1991 the number of unemployed in Sunderland had reached 24,342, with the male unemployment rate over 20% (ONS, 1991).

Regeneration activities from 1990 have sought to address the legacy of the loss of traditional industry on the economic, social and cultural fabric of the city. The city has engaged in a range of regeneration activities attempting to attract jobs, business, investment and tourism to the city and to improve the social and cultural opportunities available to residents, and since 1996 ICT has played an increasing role in these efforts, and has become recognised as a key strength. In 2007 Sunderland won the Digital Challenge, which called for bids from across the UK to outline innovative visions to utilize digital technology as a tool to combat social exclusion (Prime Ministers' Strategy Unit/DTI, 2005). As a result Sunderland received £3.5million from the Department of Communities and Local Government (DCLG), and a series of initiatives were developed to support digital inclusion. These included projects aimed at improving health, education, access to the Internet, and providing support to specific community IT projects.

## Methodology

In order to assess the impact of digital inclusion activities in Sunderland, a mixed method approach was adopted (Bryman, 2010) including policy analysis,

two surveys of residents, and in-depth interviews with residents. This article focuses on the findings of the quantitative surveys, which took the form of questionnaires completed by residents in areas of the city defined as 'socially excluded', over an 11 month period.

Given that 61,171 (21.8%) of the city's 280,600 population in 2007 lived in those Lower Super Output Areas (LSOAs) classified as amongst the 10% most deprived LSOAs nationally, the initial postal questionnaire aimed to reach at least 6,117 residents (10% of the socially excluded population). In order to access the sample we matched the LSOAs with corresponding post codes and then used the Electoral Roll (2009) to locate the most current registered addresses in these areas. According to this register, the number of residential addresses currently found in these areas totalled 26,443. The team took a 25% sample of this population providing a total of 6,610 addresses. This sample was then systematically and randomly selected (Dane, 1990). In total 811 residents responded to the first round of the questionnaire, with 393 of these respondents indicating that they would be willing to participate in the next round. The second questionnaire was subsequently designed on the basis of the first. In total 203 residents responded to the second round, which represents a response rate of 51.7%.

Although the majority of demographic data came from Survey 1, a second longitudinal level of analysis was developed. Respondents were fairly evenly split between genders in Survey 1 (females = 56%; males = 44%). There is an equivalent ratio in Survey 2, where females are at 53% compared with males which are at 48%. Within both surveys (Survey 1 = 52%; Survey 2 = 60%) the majority of respondents were situated in the mid-to retirement age groups (35-49; 50-64). Nearly all respondents identified as 'white' (Survey 1 = 98%; Survey 2 = 99%) which can be explained by Sunderland's relatively low ethnic minority population (1.9% in 2001). A significant proportion of respondents reported that they had some form of disability or long term health condition (Survey 1 = 38%; Survey 2 = 35%). These results are significantly higher than the UK's national average of disabled people (at 18%), and implies that disability is over-represented within areas of poverty in this city.

Less than half of respondents were employed (Survey 1 = 40%; Survey 2 = 37%) with 32 and 34% of respondents in retirement. Encouragingly, unemployment rates were below the national average (8%: ONS

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