

Digital Inclusion

The Social Return on Investment
Analysis of BT Get IT Together 2011/12



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Research Team

Just Economics

Eilís Lawlor

Eva Neitzert

Niamh Bowen

Kim Harper

BT

Project managed by John Perkins

SROI Steering Group: John Perkins, Anna Easton, Jennifer Harrison, Emily Harper

To be read in conjunction with the SROI Excel Model, available from Just Economics and published on bt.com/connectedsociety. Just Economics is a company that uses interdisciplinary research techniques to address economic injustice and achieve progressive and sustainable change

www.justeconomics.co.uk

Executive Summary

Digital inclusion can be defined as having access to information and communication technologies (ICT), and e-services. Increasingly, research tends to consider digital inclusion as not only having physical access to the internet, but also having the necessary skills, confidence and capabilities to do so, otherwise known as 'effective access' (Gurstein 2003; Helsper 2011; Selwyn 2003; Wilson, Wallin, and Reiser 2003). 'Effective access' requires three conditions to be met: access to hardware, the requisite skills, and the motivation to go online. BT's digital inclusion work includes a wide variety of projects that cover all three conditions, working with different age groups in different ways and across all of the UK.

This report is concerned with one particular strand of BT's digital inclusion work, namely the Get IT Together Programme that provides training and skills to digitally excluded groups in low income areas. The Get IT Together projects operate in 15 locations around the UK. They run five and ten week courses for older people, job-seekers, disabled people and people living in rural areas. They cover all four countries and are particularly focussed in the most disadvantaged regions in England. These projects are primarily delivered by Citizens Online, a charity set up to tackle the issues of digital exclusion, to make sure that the internet is available to everybody, and to help individuals and communities gain the benefits of being online.

The courses are delivered by a combination of volunteers and paid tutors, and though aimed at a range of target groups, Citizens Online is most successful at attracting older learners who make up 80 per cent of all participants.

BT commissioned Just Economics to evaluate the success of the Get IT Together programme. Following an extensive review of available evaluation methodologies, it was decided that a Social Return on Investment (SROI) analysis would be most appropriate. Amongst other things, SROI is a methodology, which enables the monetisation of outcomes that traditionally have not been financially valued.

The research comprised of three stages of data gathering:

1. Stakeholders were engaged qualitatively to understand the theory of change and identify the appropriate outcome indicators
2. Existing survey data gathered by Citizens Online was analysed to evidence outcomes
3. Additional interviews were carried out with a sub-sample of jobsseekers, volunteers and paid tutors who were reported to have gained employment as a result of the programme

The first round of interviews were carried out in four different project locations with the main stakeholder groups: older people, jobseekers and volunteers. Following the interviews, a series of 'sub-stakeholders' were identified - these are groups within the larger groups for whom the difference in the value of the outcomes is significant enough to merit being considered independently. The final list of stakeholders identified for this analysis is as follows:

- Learners:
 - Older People – with a computer at home – living in a rural area
 - Older People – with a computer at home – living in an urban area
 - Older People – without a computer at home – living in a rural area
 - Older People – without a computer at home – living in an urban area
 - Jobseekers

- Volunteers who help to run the courses
- Paid tutors in rural areas
- The state

The interviews in the stakeholder engagement phase established the theory of change for the research ie Identified the appropriate outcomes to measure. Feedback from the participants also established that the courses are, on the whole, well-liked, and valued for the opportunity they provide to develop computer skills and socialise with others.

The second stage of the research involved analysing the data from questionnaires completed by a sample of older learners. 11.5 per cent of older learners had completed entry and exit questionnaires (n=342). Follow-ups were carried out at three months with six per cent of learners (n=179), and at six months with four per cent of learners (n=120). Notable findings from the longitudinal data are as follows:

- 60 per cent of learners report improved confidence
- 25 per cent report a reduction in social isolation
- 57 per cent report a more meaningful use of their time
- 31 per cent are shopping online and using government services
- 78 per cent report that they are still using the internet three months after the course has completed

Due to a lack of specific data on jobseekers, volunteers and paid tutors, additional interviews with these stakeholder groups were carried out: 15 with jobseekers, 15 with volunteers and nine with paid tutors. A notable finding was a high level of success with jobseeking volunteers in terms of building their skills and employability. The project is less successful with jobseekers themselves. Almost 900 people have been trained in digital skills for jobseeking since the start of the programme but only 11 people are known to have found work. Of these, only 30 per cent believe that the course was 'quite helpful' or 'very helpful' with regard to their jobseeking. As such, the main employment benefits appear to come from the volunteering model. Almost all of the volunteers have gone on to take up paid employment and consider the course to have been very helpful in achieving this goal. Paid tutors in very rural areas have also benefited because of the dearth of alternative employment opportunities in their locality. However, jobseekers we spoke to also reported that they gained non-employment benefits from the programme, similar to those reported by older people but most notably the economic savings, convenience and confidence that it gave them. Some people reported that even though they were still out of work, the boost that learning these new skills gave them went some way towards alleviating the difficulties that it posed. It is possible to conclude from the research that digital skills training differs from other types of vocational training in that the non-employment related benefits are substantial, making the analogy with literacy skills increasingly meaningful.

Based on data from 2011/12, collected during monitoring by Citizens Online and supported by wider research on digital inclusion, Just Economics forecast that in 2012/13, the present value of the social benefit created by the Get IT Together regional projects will be over £1.5 million for an investment of over £420,000. This translates into a ratio of 3.7:1, or for every £1 invested in the programme over three pounds of social value is generated. The present value of the benefits to the State is over £430,000, suggesting marginally positive return (1.04:1). As the analysis employs many imputed values, we varied the estimates by carrying out sensitivity analysis. The model was largely resistant to change in any one

assumption, suggesting that the model is relatively stable. Varying individual proxies, for example, did not generally make a substantial difference.

The analysis also found that the courses are most effective for older learners, and volunteers and these groups emerge as the beneficiaries for whom the most value is created. However, when calculated on a per learner basis, the value to jobseekers and tutors are greater than the value to older people. This is due to the high value that employment has relative to other things. However, as mentioned, this was also the most challenging outcome to achieve. The courses are also more beneficial to those in rural areas for whom no, or few other training options are available.

There are a number of ways that the strengths of the programme can be built upon. A finding to emerge from the stakeholder engagement interviews, which was then confirmed through analysis of primary data, was that a key consideration in determining effectiveness of the courses was whether a learner had access to a computer and the internet at home. In fact, those with home devices were statistically more likely to be using the internet at three months follow-up and to be using it regularly. This finding is consistent with the literature on digital exclusion, which suggests that access to hardware, the requisite skills, and the motivation to go online are together necessary for someone to have 'effective access'. It is recommended that partnerships are explored with organisations that provide access to free or subsidised hardware.

Many participants, volunteers and tutors considered the courses to be too short to really build the confidence and embed new-found digital skills. A second recommendation is to pilot longer courses, or follow-on courses for those with a desire for further training and to compare outcomes for each group to establish whether these make a difference.

Finally, as mentioned the courses are currently less successful in achieving employment-related outcomes for learners. There is a case for rethinking the strategy for reaching jobseekers and younger disabled people to ensure that the course is delivered in a way, which meets their needs. This would be complemented by a more formal approach to supporting volunteers who are important unintended beneficiaries.

This SROI analysis is presented as a 'forecast', rather than an evaluative SROI due to some issues with the quality and fit of the primary data. Firstly, the primary data is not gathered from a random sample of participants, and it is possible that the sample is biased, for example that those with the most positive experiences are most likely to fill in the questionnaires. The sample sizes at three and six months are also quite small, which reduces the reliability of the longitudinal findings. In addition, some of the outcomes identified by stakeholders as important were either not being measured, or were not measured in a precise enough way to enable any firm conclusions to be drawn. As a result of these limitations, some of the assumptions contained within the analysis are drawn from secondary research, which means that we can only have a certain degree of confidence in the findings. To take account of data limitations, the researchers have consistently used more conservative estimates, and have varied the estimates of effectiveness in sensitivity analysis.

As the programme in its current form is due to conclude in 2014, there is insufficient time to introduce a new data collection system in the interim. Nonetheless, the report contains a series of recommendations for a more consistent and systematic evaluation, which overtly focuses on outcomes that matter to stakeholders. These also form the basis for a new phase of work with the Connected Society programme to produce SROI-compliant measurement tools. These recommendations should inform the development of any new digital inclusion initiatives that succeed the current programme.

1. Introduction

In 2012, BT commissioned Just Economics to provide consultancy support on measurement, evaluation and social accounting in relation to its efforts to promote digital inclusion. This culminated in Just Economics carrying out a Social Return on Investment (SROI) analysis of one strand of BT's digital inclusion programme - the Get IT Together programme.

Following an extensive review of available methodologies, SROI was chosen as the methodology for this particular evaluation due to its widespread acceptance as an evaluation tool, its focus on outcomes, and because it enables monetisation of outcomes and assessments of value for money. A steering group was established in October 2013 to advise the research team on the development of the SROI. This consisted of representatives from BT and Citizens Online.

SROI is a form of cost benefit analysis that compares the value created by an intervention to its costs to make an assessment of whether an intervention is good value for money. It differs from conventional cost-benefit analysis in two key ways. First, it places monetary values on non-traded benefits, such as quality of life, which have historically been considered non-quantifiable. Second, it takes a multi-stakeholder approach - rather than measuring 'returns' only to the State or the economy, it includes and measures all of the most significant sources of value creation. The analysis in this report is conducted in line with the UK's official SROI methodology (Nicholls et al. 2009).

BT are involved in a range of different social projects that share the aim of getting digitally excluded people online. One element of this work, the Get IT Together programme, runs short IT courses for older people and jobseekers in 15 deprived and rural communities across the UK. These courses are operated through the charity Citizens Online, which employs local coordinators to work alongside local partners, such as councils, to identify the needs within the local community and to set up the appropriate courses.

Citizens Online monitors the running of these courses. Questionnaires are completed by learners when they start and end the course, and a sample of learners are then telephoned at three, six and twelve month intervals after finishing the course in order to gather longitudinal data. These data were supplemented by retrospective interviews with volunteers, jobseekers and paid tutors. These were groups that were identified as important beneficiaries but little specific information existed about them.

Alongside evaluating these courses, a second objective of this piece of work is to provide guidance to BT on how future measurement, using more tailored evaluation tools, could improve the evidence-base for their social projects and ensure that resources are being channeled to those areas that are the most socially valuable. The recommendations section of this report gives guidance on how to improve data gathering to make it more consistent with the requirements of SROI analysis.

1.1 Scope

This analysis is based solely on the BT Get IT Together projects. The theory of change developed for this analysis references six main stakeholder groups – older people, jobseekers, people with disabilities, the state, paid tutors in rural Scotland and volunteers. However, in order to take each group forward to the modelling stage, there also needs to be data of sufficient quality available to enable this. As data did not exist specifically on jobseekers, paid tutors and volunteers, additional interviews were carried out to capture benefits to these groups.

We have excluded people with disabilities from the analysis because it is not clear that this is a group that merits being considered as a separately. Although some of the learners have a disability all of these are also over 55, and as such their experiences and needs are already captured through the analysis of the over-55 stakeholder group. We concluded that the theory of change for older people with disabilities was captured in the theory of change for older people. There is not much evidence that the courses are reaching substantial groups of younger people with disabilities at present.

The period of analysis is the entire period for which the project has been active, as this aligns with the way in which the longitudinal analysis was carried out. The SROI can be broadly described as 'forecasted'. This is because the social value calculations are based on a combination of estimates and primary research. To ensure the robustness of the forecast, the projections are anchored in data from the current evaluation, new primary research and secondary literature, including academic research.

The quantitative modelling is based on the following:

- Survey responses from those aged over 55^[1] and any flow-on impacts (eg for the state).
- Survey responses from retrospective interviews with jobseekers, volunteers and paid tutors
- Flow-on impacts from benefits to the primary beneficiaries (eg the state)
- Statistics drawn from related secondary research

1.2 BT's digital inclusion work

BT Group plc is a British multinational telecommunications services company, and one of Britain's leading blue chip companies. It is one of the largest telecommunications services companies in the world and has operations in over 170 countries. Its retail division is one of the largest suppliers of telephony, broadband and subscription television services in the UK, with over 18 million customers.

BT has been a significant player in promoting digital inclusion through its corporate social responsibility projects, focusing on three main aspects:

- Providing greater access to communications technology
- Encouraging communication and its use for social and economic benefit
- Helping groups and individuals use technology

^[1]An older person is defined as those over 55. Although data were analysed on those over 65, there was little difference in either the theory of change between the two groups or the outcomes recorded.

Box 1 gives an overview of BT's sustainability programmes:

Box 1 : BT's sustainability programmes

Better Future

Better Future is BT's strategy to deliver its ambition to be a responsible and sustainable business leader. It's a long-term commitment focusing on the areas where BT can benefit both the bottom line and the communities they work within.

Connected Society

The Connected Society programme is a key part of BT's pledge to spread access to the internet and help people to develop the skills and confidence they need to make the most of it. BT use its technology and support for digital inclusion initiatives to help break down barriers such as affordability and digital literacy, which can discourage vulnerable communities from using technology. The aim is to transform lives worldwide through safe and secure access to information and services and to improve education, employability, healthcare etc.

bt.com/connectedsociety

The Get IT Together regional projects form part of the Connected Society programme (see Box 1). The projects, provide training to digitally excluded people throughout the UK, and are delivered in partnership with Citizens Online.

They operate in 15 locations in the most disadvantaged and remote areas. They are primarily delivered by Citizens Online, which in some areas, also works in partnership with other organisations. Whilst BT is the core funder of the projects, their funding also helps leverage funding from other sources (see Table 1).

Citizens Online was set up to tackle the issues of digital exclusion, to make sure that the internet is available to everybody, and to help individuals and communities understand and gain the benefits of being online.

The projects run five and ten week courses, delivered by a combination of volunteers and paid tutors, aimed at older people, job-seekers, people with disabilities and people living in rural areas. Citizens Online are most successful at attracting older learners to these courses, who make up 80 per cent of all participants.

Table 1: Regional projects

Project Location	Target	Funding Partners	Duration	Start date
Cornwall	Remote and rural communities Older people	Cornwall Council / EU	3 years	Jan-11
Caerphilly	Disability groups Older people	Caerphilly City Council	3 years	Sep-11
Gwynedd	People with disabilities Older people Welsh language groups	Welsh Language Board Gwynedd Council Gwynedd Community Housing	3 years	Oct-11
Bristol	Disability groups Older people	Bristol City Council	3 years	Sep-11
Northern Ireland	Remote and rural communities	Entirely BT funded	3 years	Apr-11
Leeds	Jobseekers People with English as an additional language	Leeds City Council	3 years	Nov-11
North West Sutherland	Remote and rural communities	Highland Council Highlands & Islands Enterprise Nominet Trust	3 years	Sep-11
Skye, Wester Ross & Lochaber	Remote and rural communities	Highland Council Highlands & Islands Enterprise Nominet Trust	3 years	Sep-11
Barnsley	Financially excluded people Older people People with low educational attainment	Barnsley Association of Community Partnerships Nominet Trust	3 years	Jun-11
Highlands	Remote and rural communities NEETS (Young people not in education, employment or training) Older people	Highlands & Islands Enterprise	3 years	Oct-12
Orkney	Remote and rural communities NEETS Older people	Highlands & Islands Enterprise	2 years	Oct-12
Rhondda	People with low educational attainment Young people Socially excluded people	Welsh Government Rhondda Cynon Taff Council	2 years	Sep-12
Plymouth	Jobseekers People with low educational attainment	Plymouth City Council Job Centre Plus Plymouth University Plymouth Housing Community	3 years	Jan-13

1.3 Policy and needs analysis

Digital inclusion can be defined as having access to, and making full use of ICT, digital technologies and e-services. However, popular portrayals of people being 'online' or 'offline' are considered overly simplistic and the issue is better understood as a series of digital divides or inequalities (Van Dijk 2005; DiMaggio et al. 2004; White and Selwyn 2013), or a continuum from included to excluded (Warschauer 2004). Increasingly, digital inclusion is described, not just as having access but as having the necessary skills, confidence and capabilities to do so, sometimes called 'effective access' (Gurstein 2003; Helsper 2011; Selwyn 2003; Wilson, Wallin, and Reiser 2003).

However it is defined, what is clear is that digital exclusion is concentrated amongst those with low levels of education and/or income, people with disabilities, older people, those who reside outside of urban centres, and amongst the unemployed (Attewell 2001; Capgemini Consulting 2012; Chen and Wellman 2004; Dutton and Blank 2011; Dutton and Helsper 2007; Fresh Minds 2007; Loader and Keeble 2004; Seale 2009; Selwyn and Facer 2007; The Chartered Institute of Taxation 2012). There is a clear correlation between digital and social exclusion, which persists in spite of considerable technological change and fifteen years of policy interventions specifically targeting disadvantaged sections of society (White and Selwyn 2013). Not only is there a social gradient in access to the internet, the purposes for which people use it vary by social and demographic factors. For example, younger people and those in higher income brackets are more than twice as likely to use the internet for banking and government services (ibid.) Many conclude that without more rapid policy interventions to address digital exclusion, existing inequalities may become more entrenched as digitisation penetrates further domains of social and economic life (Foley 2004; Hüsing and Selhofer 2002; Longley and Singleton 2009; White and Selwyn 2013; Warren 2007).

In spite of a series of high profile campaigns within government, the latest statistics from the Office of National Statistics (ONS) suggest that there are still 6.4 million adults that have never used the internet (around 11 per cent of the population). Although this is about 650,000 less than recorded in the previous year, the pace of change is slow. It suggests that it would take at least another 14 years to get everyone online, assuming there is no increase in the barriers to getting online. As government services become increasingly digitised, digital exclusion will become an even greater problem for a substantial part of society that remains constrained by social exclusion. For example, it has been estimated that roughly 89 per cent of UK public services are now run online, yet just 29 per cent of the UK population is using the internet to access them (UK Online Centres 2008).

Under the current administration, the move towards digital by default has taken on a greater urgency in an effort to reduce the costs of government. However, this objective can only be realised if the digital divide is not just reduced but eliminated, as digitally and socially excluded individuals are also the ones that tend to be in greater need of public services, such as social welfare benefits (The Chartered Institute of Taxation 2012). Indeed, as much as 80 per cent of government interaction with the public takes place with the bottom income quartile of society. Unfortunately, those who need access to services the most are the least likely to take advantage of online services even when access is available (Helsper 2011).

For the individual, digital inclusion has been shown to lead to learning and educational benefits, improved income and job prospects (Dutton and Blank 2011; Green and Britain 2011; Turcotte and Rennison 2004; Vakhitova and Bollinger 2011), as well as potential health, well-being and consumer benefits (Bessell et al. 2002; Brynjolfsson, Hu, and Smith 2003; Cotten et al. 2012; Shapira, Barak, and Gal 2007; Stroetmann et al. 2006; SQW Consulting 2013).

For the State and the economy, higher levels of digital inclusion may reduce the cost of certain types of public services (eg the NHS) and contribute positively to gross domestic product (GDP) (Colecchia and Schreyer 2002; Fresh Minds 2007; Oulton 2002; Pilat and Lee 2001; Pilat 2004; PriceWaterhouseCoopers LLP 2009; Stroetmann et al. 2006; UK Online Centres 2008). The UK Broadband Impact Study estimates that the availability and take up of faster broadband speeds will add about 0.7 percentage points to the UK's annual Gross Value Added (GVA) by 2024, generated through higher productivity and the safeguarding of employment in rural areas (SQW Consulting 2013). The report also estimates substantial social benefits in the form of increased leisure time, reduced commuting time, household savings. Environmental savings are estimated at 1.6 million tonnes of CO² (ibid.).

The importance of effective access means that efforts to measure the success of digital inclusion interventions must go beyond measures of physical access (eg number of new households connected) to capture how any increased access is creating change in the lives of those that are newly connected. This is the approach taken in this research. Access is seen as a necessary but not sufficient condition for becoming digitally included. As well as identifying the discreet, project-specific benefits of taking the courses, we have identified factors (data permitting) that have contributed to someone becoming a regular user in the future. In this way, the research hopes to contribute to the literature in identifying the ingredients that contribute to a successful intervention for particular groups and what it means to be an effective user.

2. Stakeholder engagement

An SROI analysis engages stakeholders – those affected by the intervention – to establish the ‘theory of change’, or logical framework, for the intervention. The involvement of stakeholders at this stage ensures that the SROI measures and values the things that are most important to those directly experiencing the change. In SROI, stakeholder engagement is a qualitative exercise, which follows the usual principles of qualitative research.

Some stakeholders of the Get IT Together programme had already been excluded at the initial scoping stage for this analysis due to a lack of data available. However, the relevance of a group to the analysis also needs to meet a materiality test if they are to be included. This materiality test asks whether sufficient social value is likely to have been created for that stakeholder group, relative to the whole, to merit its inclusion in the analysis. The aim is to focus the theory of change on the most significant outcomes whose omission would influence organisational decision-making.

The analysis also differentiates between stakeholders that are material to the organisation's inputs (eg funders and staff) and those that are material to the outcomes (eg learners). Sometimes stakeholders that are material to the inputs will be involved in stakeholder engagement process (eg staff) but they will not be included in the modelling phase of the SROI unless they are also themselves deriving material benefit.

The stakeholders that were included in the engagement phase are described in Table 2.

Table 2: Stakeholder audit trail

Stakeholder	Method of engagement	Number engaged	Taken forward in model	Reason for decision
Older People	Interviews	23	Yes	Main beneficiary and adequate data
Jobseekers	Interviews	8	Yes	Main beneficiary and adequate data
State	Interview and policy document review	N/A	Yes	Benefits can be inferred from benefits to older people and unemployed
Project Volunteers	Interviews	5	Yes	Secondary unintended beneficiary and adequate data
Project Co-ordinators	Interviews	5	N/A	Material only to inputs and to providing a perspective on change for the learners
Paid tutors	Interviews	0	Yes	Only identified during the data collection phase, theory of change identified latterly
BT	Group discussion	3	No	Not considered to be a material stakeholder in the context of the overall analysis.
Ex-beneficiaries	Telephone interviews	10	N/A	Not intended as beneficiaries, interviewed to help develop long run theory of change
Total engaged	54			

The group that required the most extensive engagement was learners. Through discussions with BT and Citizens Online, four sites were chosen to visit:

- Caerphilly (Wales)
- Bristol (England)
- Cornwall (England)
- Sutherland (Scotland)

These were chosen because they covered both rural and urban locations and included older people and jobseekers. A greater number of older people were interviewed than jobseekers, reflecting the relative size of the populations (70:30 respectively).

In each location, Citizens Online provided contacts for learners. Individuals were either interviewed in groups or individually. Researchers followed a short semi-structured interview^[2]. SROI guidance recommends that stakeholder engagement continue until a point of ‘saturation’ has been reached where no further material changes are uncovered. In this instance, there was general consistency between stakeholder’s perceptions of the benefits of the service and those that the organisation itself identified, although some additional benefits, particularly around reducing social isolation, were identified.

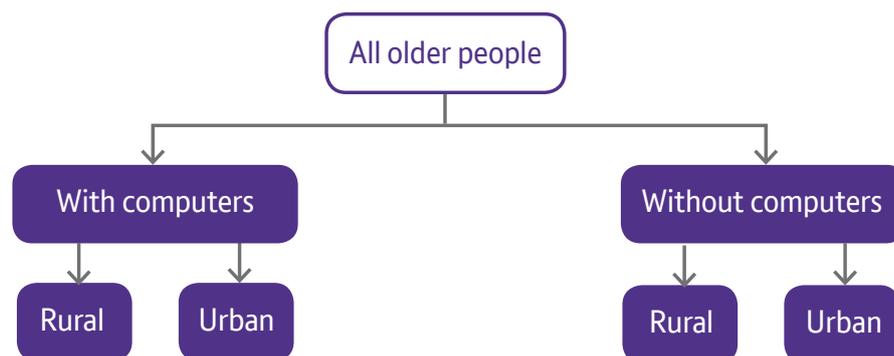
The stakeholder engagement process suggested that the ‘older people’ group required some segmentation and a series of sub-stakeholders were identified. These are groups for whom the difference in the value of the outcomes is significant enough to merit being considered independently.

^[2] For a copy of the interview guide or other data collection materials, please contact the authors

For example, a finding to emerge from the stakeholder engagement interviews was that a key consideration in determining effectiveness of the courses was whether a learner had access to a computer and the internet at home. For those without access, the benefits were smaller as learners were unlikely to embed the lessons learned in class by self-study. This finding was triangulated later in the quantitative analysis (see Section 3.3). In addition, it also emerged that the benefit to participants from the course is likely to be greatest for those in rural areas for whom no, or few other training options are available.

The 'older people were therefore segmented as illustrated in Figure 1.

Figure 1: Segmentation of Stakeholders



Box 2 summarises the main findings from stakeholder engagement and some case studies are presented in Box 3. The next section describes the theory of change for each of the groups, which was the output from this process.

Box 2: Findings from the stakeholder engagement

Motivation to go on the course

The themes that emerged from learners centred on the desire to learn and not wanting to be left out, or left behind with regards to the digital age. People thus spoke of the courses leading to an increase in independence. Many wanted to learn how to use technology to keep in touch with family and friends either through written, social or real time face to face media, usually Skype. Others spoke of wanting to learn how to access information available online, from shopping to research (eg genealogy) to information on government websites. Others spoke of the need to learn how to carry out their personal business online (eg form-filling, bill paying). Others saw the course as providing a gateway to a hobby which could in turn alleviate boredom, (particularly relevant to the retired).

In Scotland, some of the learners interviewed said that they came to the courses as they did not have access to the internet elsewhere or because their home signal was too poor. Some also cited the cost of getting hardware and internet access at home as being prohibitive, and thus a reason for enrolling on a course.

For the jobseekers that we spoke to, the main reason for going on the course was to access Universal Job Match (UJM). This service is a job search facility developed by the government to match job seekers with employers. For those who have been out of work for a certain period of time, regular registration with UJM is mandatory in order for individuals to retain their benefit. For the jobseekers that we interviewed in Scotland, this meant that people were accessing the course primarily to fulfill this job

centre requirement, rather than using it to improve their job seeking skills or employability. In other locations, although UJM was still a requirement, jobseekers also identified other benefits from the course, primarily getting work, and improving their confidence.

Barriers to access

Age was considered a major barrier to using information and communication technologies (ICTs). There was a perception of 'being too old to learn' amongst the older learners and many felt that they were missing out because of the generation they were in. They saw the advances in technology happening all around them but did not have a way to learn how to access and/or use this technology by themselves. When asked why they hadn't used computers in the past, they described a great fear of the unknown. They also said that this was a reason why a greater number of older people do not get online.

In rural areas, stakeholders indicated that there is a lack of availability of alternative training and people had either been unable or unwilling to travel long distances to access alternatives.

What has changed for stakeholders as a result of going on the course?

It was for those that had access to hardware at home that the majority of changes seemed to occur. A strong finding from the interviews was the importance of home access for embedding the lessons learned through self-study. For those without access, whilst they enjoyed the course, they did not feel like it changed their lives significantly. Home access also influenced frequency of use.

Those who did have access said that they felt more confident about using the technology. They also said they were enjoying keeping in touch with family and friends, and thus did not feel left out anymore. Several spoke of how they now felt stimulated and less bored because of having new skills and means of entertaining themselves with online content.

There was consensus that the social value of doing the courses had been high. Many reported enjoying getting out of the house, meeting with others and having social interaction as being important to them. This seemed to be equally as true for those who lived in urban as for rural areas. Discussions with ex-beneficiaries would suggest that for some, this is only a short-term outcome and not maintained beyond the five weeks of the class. However, some jobseekers and volunteers that were interviewed later in the research identified this as a benefit to them suggesting the need for more systematic measurement.

Most of the usage was internet-based. The following activities were undertaken online: information search, email, social media, shopping, real time media, online form filling, file management, typing, listening to music, watching films, and catching up on television viewing.

What might change in the future?

When asked what might change for them as a result of the course, the learners mentioned a number of key changes. Some pointed to the possibility of making financial savings by, for example, using paperless billing and other online mechanisms. Being more fulfilled by pursuing hobbies and interests online was another key outcome. For some, it provided an opportunity to follow their favourite TV programmes and for others they could carry out research into their family history. Finally, enabling more extensive communication with friends and family was another outcome.

Those who had gained skills said they would feel happy passing on this learning or exchanging information with others in relation to their new skills. The quantitative data bears out that a minority of learners do go on to become more involved in their communities, or in helping other learners.

What could be improved?

Many learners reported wanting to increase knowledge of ICT, and that they would like to continue on learning new skills. Almost every older learner reported that the short five-week course was not enough. They all wanted more classes in order to practise and consolidate the new skills they were learning. They wanted to learn about online shopping, downloading, Skype, and genealogy and felt the five weeks was only enough to introduce them to the fundamentals. For jobseekers, about half would like the course to be longer. The majority of paid tutors and volunteers think the course should be longer. Volunteers said that they should receive some compensation for giving their time eg bus fares and/or lunch vouchers. Whilst volunteers were generally pleased with the programme and gained from it, it was also mentioned that small financial acknowledgements of their time would improve recruitment and retention.

Could these changes have happened without the course?

Those who had access to support from their family and friends with technology said that this support was helpful but they felt they would not have progressed as fast had they not also gone on the course. Having access to specific training in a peer group was described as a very important element to significant progression. People cited having a tutor who understood their needs as being very positive. Not having to rely on friends and family also provided the older persons with a greater sense of independence.

The majority of jobseekers who had gone on to find work after attending the course reported not using their new computer skills in relation to either gaining their current employment, or in their new job. However, the majority did gain other benefits from attending the course, such as an increase in confidence, and many reported now being able to look for jobs online, even if they were actually finding roles through alternative means.

The geographical proximity of the course to where the learners lived was very important to their decision to take the course. When courses had previously been available further away from people's homes, they had often not taken up courses.

The fact that the course was free was also a pull factor in decision making. Many learners are from the lowest income quartile and so paying for courses would put a strain on their finances. Some had considered pay-for courses previously, but elected not to embark on them for reasons of cost.

Box 3: Case studies^[3]

George (68), is retired and has just completed a Get IT Together course in a rural community. He does not have internet access at home. As he put it, “the only line I have in my house is my laundry line”. George plans to get internet access at home in the near future.

George had no prior experience of using the internet. He jokingly said, “I used to think broadband was part of a lady’s skirt”. He was intrigued about the internet: “I was very curious about this online thing, I felt I was missing out, but I was a bit frightened of a class, I couldn’t make the leap.” He felt that the courses available to him were too far away to drive to and also he was not keen to travel at night time, which is when a lot of the other courses seemed to be running.

Since coming on the course he has enjoyed the experience immensely, “I’m glad I did now though, it’s been great learning.” He enjoys looking up information, especially in the areas of genealogy and history. He uses Wikipedia and is also now using email, “I email my granddaughter, for practice”. He likes to view photographs sent by family members. He is keen to learn how to use Skype. For George, the social occasion that goes with coming to the class is of significant benefit to him as he lives alone in a rural location and does not have a huge amount of social contact.

Liz (49) is a job seeker accessing a Get IT Together programme in Sutherland. She lost her job recently and has been accessing the class in the local community centre. She does not have internet access at home or elsewhere. In the class she has learned how to use Universal Job Match and is able to fulfil her benefits obligation to job seek online twice a week. She really likes meeting others who are also job seeking, as there is mutual support in the group. She has also increased her levels of job seeking since attending the course.

Liz describes the benefit as follows: “I’ve applied for more jobs in the past few weeks since coming here than ever in my life because I’ve learned how to do online applications. I can now use Universal Job Match, no problem. I’ve become more confident at going online. I can do it on my own now... I’ve also done more courses outside of here because I feel more confident. It has helped me to promote myself. Even if I could afford to be online at home I’d come here still. It’s for the support”.

Dorothy (45) attended the Get IT Together course in spring of last year. Prior to joining the course she had never used a computer or the internet before. When she joined the course she was claiming Jobseekers Allowance, and she was required to look for work several times a week.

Dorothy learnt valuable online jobseeking skills on the course, which enabled her to find her new job – she says it was only advertised online, and so if she hadn’t known how to use the internet, she would never have seen it, or been able to apply for it.

Although she doesn’t use the internet as part of her work, she is still using the internet regularly, both at home and at the local community centre, and feels confident doing so. As well as looking for information online and using her email, she is still looking for work online as she is required to increase the number of hours she works. Dorothy told us that in addition to learning new computer skills, she made new friends and gained a real sense of achievement. She also enjoyed participating in the course: “...having a cup of tea and a biscuit, and having the time to focus on learning”.

^[3] All of the names and some of the identifying details have been changed in these case studies.

Muhammad (32) was a volunteer with Get IT Together for six months. He signed up as a recent immigrant to the UK in the hopes that volunteering would help him to integrate into a new culture. He also wanted to use his time productively while he was looking for employment. His area of expertise was IT and computer systems. He really enjoyed his time as a volunteer citing that he got enormous social benefit from meeting with people every week. It was also close by where he lived so he felt a sense of belonging to a community because of his connection to the programme.

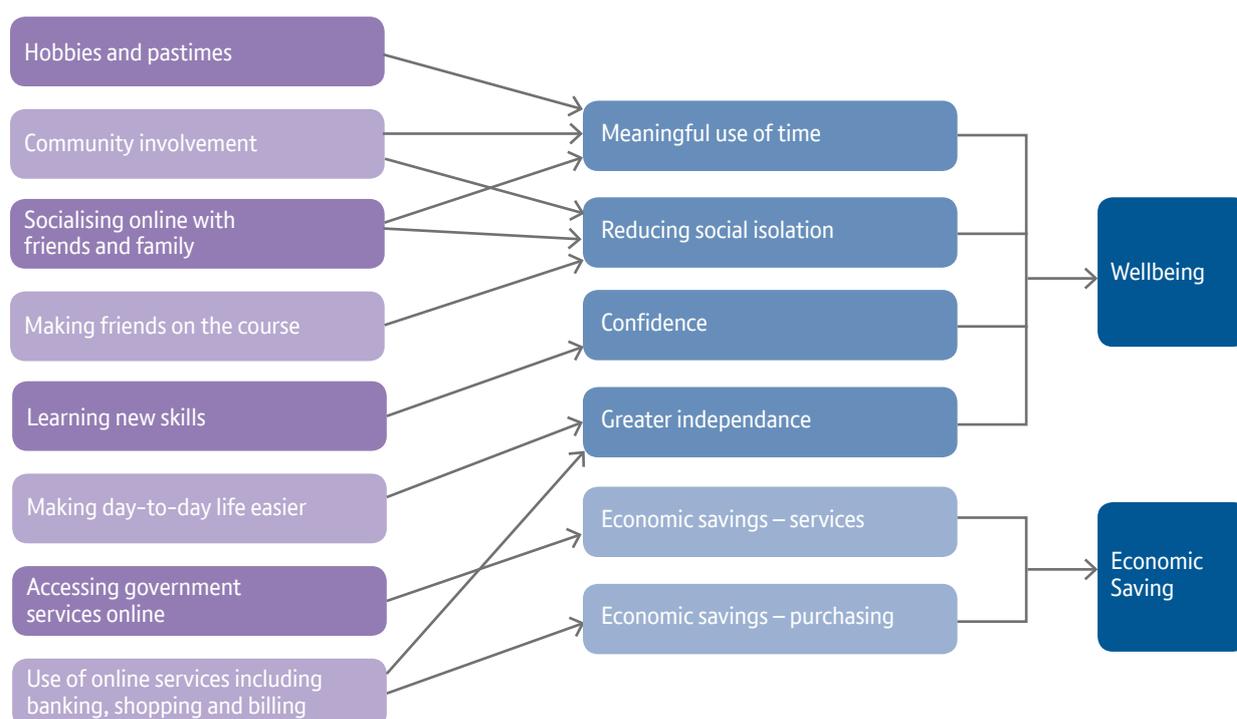
He thought that the volunteering programme was an excellent concept for people like him arriving in a new country. He felt that it helped him to stay focused and gave him a purpose while he embarked on job seeking. He said that while he felt appreciated by his students in classes that he did not feel as much appreciation or connection with the programme itself. He thought that it would be good for volunteers to get travel-related expenses and/or lunch vouchers or some other token contribution for their time, as this would improve people's loyalty to the volunteering programme.

Muhammad found work in his field after six months in the UK and subsequently left as a volunteer.

3.1 Older people

For older people, the main outcomes relate to their well-being or to economic savings of some kind. Going online provided a novel, low cost means of communicating with friends and family. It provided a social outlet and a way of spending their time. It also increased their confidence and made them feel part of modern life. Economic savings were also important for this group, who were generally pensioners on low incomes for whom small savings in living expenses can make a big difference. The theory of change for the older people stakeholder group within the Get IT Together regional projects is set out in Figure 2.

Figure 2: Theory of change: Older people



Citizens Online also believe that learners are more likely to take part in their community, take up volunteering or teach friends or family to use computers. It is not yet clear whether this outcome is being achieved. We recommend that this outcome is included in future data collection so that it can be incorporated into the SROI if appropriate.

Whether or not outcomes occurred was evidenced using existing data from Citizens Online. 11.5 per cent of older learners had completed entry and exit questionnaires (n=342). Follow-ups were carried out at three months with six per cent of learners (n=179), and at six months with four per cent of learners (n=120). Notable findings from the longitudinal data are as follows:

- 60 per cent of learners report improved confidence
- 25 per cent report a reduction in social isolation
- 57 per cent report a more meaningful use of their time
- 31 per cent are shopping online and using government services
- 78 per cent report that they are still using the internet three months after the course has completed

Table 3: Indicators used for each outcome

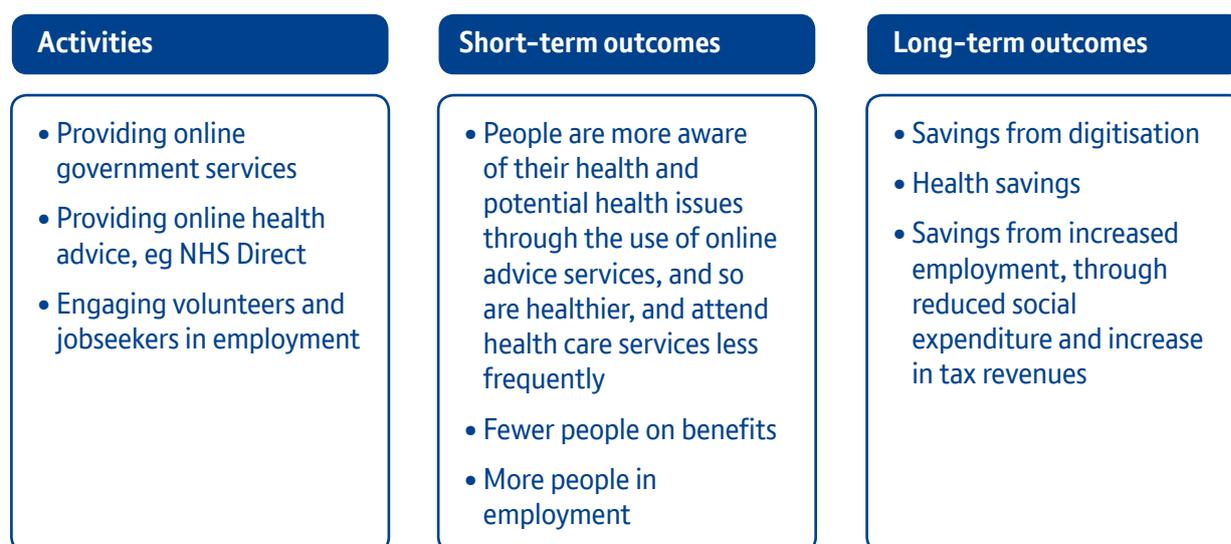
Outcome	Indicator
Confidence	Proportion that experience an improvement in their confidence levels between starting and finishing the course, and who are regularly using the internet after 3 months
Reduced social isolation	Proportion that, on finishing the course, are volunteering to help others with computers or the internet, are more active in their community, or who are socialising online
Independence	Proportion that, on finishing the course, are either using government services online or are saving money by shopping online
Meaningful use of time	Proportion that, on finishing the course, are doing one of a range of activities online
Cost savings	Proportion that, on finishing the course, are either using government services online or are saving money by shopping online

We also tested the finding from stakeholder engagement that having a home device increased the chances of a successful outcome. We tested whether there was a statistical relationship between the existence of a home device and four indicators for which data existed: change in confidence, desire for further training, use of computers at three months and regular use of computers. We found that the group that had a home device were more likely to be using the internet at three months and to be using it regularly (Pr=.000, Pr=.000, n=342). A home device was not associated with a greater increase in confidence or desire for further training. However, this was not that surprising. Firstly, with confidence data, whilst the majority of learners reported an increase in confidence at exit, it was not uncommon for learners to report a decrease at this stage. This is because they became aware of how little they actually knew once they were formally trained. In addition, those with home devices who have the freedom to self-study may not see the need for further training as much as those that don't. See Appendix 2 for the results of the statistical tests.

3.2 The state

Data to evidence outcomes for the state were not actively gathered by Citizens Online. However, some of the outcomes for individuals implied a corollary outcome for the state. For example, if learners are using state services three months after the course ends, then we know that the state's objective of greater use of online public services is being achieved. In other instances, there is existing research of the macro-benefits of digital inclusion, which was used to predict outcomes. This is an area that would require further research in an evaluative SROI. Figure 3 sets out the theory of change for the state in relation to this project.

Figure 3: Theory of change: The state



3.3 Jobseekers

An important weakness in the initial data capture was a lack of specific data on jobseekers. Additional primary research was carried out to fill this gap. Citizens Online identified 52 individuals that had had some employment benefit from the course, and we were successful in getting interviews with 39 of these (75 per cent response rate). These were a combination of learners, volunteers and paid tutors in rural Scotland (see Table 4 for a breakdown)^[4]. Because the sample was chosen by Citizens Online to reflect those that had the most positive experiences with jobseeking, these findings have not been extrapolated to the total population of jobseeking learners (n=850). However, it would be reasonable to assume that some of the non-employment outcomes would apply to the whole population. To remain conservative we have not modelled these in our base case but have done so in sensitivity analysis (see Section 4.2). Finally, we have split this group into short and long-term unemployed (12 months or more). This takes account of the fact that the longer someone is unemployed, the less likely it is that they will return to work, and also that long periods of unemployment have a 'scarring' effect, reducing long run career prospects and earnings (Gregory and Jukes 2001). However, jobseekers we spoke to also reported that they gained non-employment benefits from the programme, similar to those reported by older people but most notably the economic savings, convenience and confidence that it gave them. Some people reported that even though they were still out of work, the boost that learning these new skills gave them went some way towards alleviating the difficulties that it posed. It is possible to conclude from the research that digital skills training differs from other types of vocational training in that the non-employment related benefits are

^[4] Survey questions available from the authors on request.

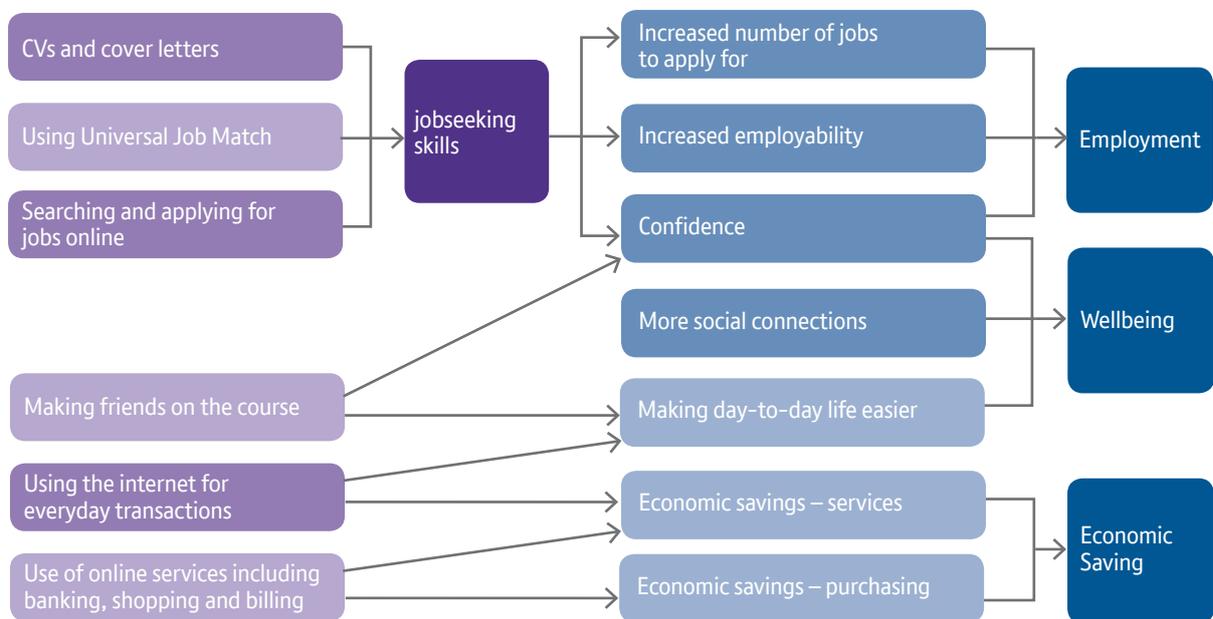
substantial, making the analogy with literacy skills increasingly meaningful. For example, one interviewee that we spoke to was now using the internet to earn extra income by buying and selling goods through Ebay.

Table 4: Breakdown of interviews

Stakeholder	Number of interviews
Jobseekers	15
Volunteers	15
Tutors	9

Figure 4 sets out the theory of change for jobseekers. All of the outcomes were taken forward to modelling except social connections. This was mentioned by some jobseekers in the retrospective surveys but there was not enough data to include it in the model.

Figure 4: Theory of change: Jobseekers



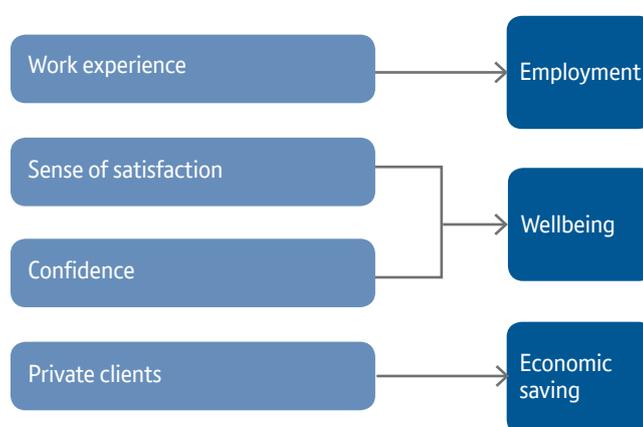
3.4 Volunteers

Volunteers are an unintended beneficiary group, as the Get IT Together programme does not set out to create social value for this group. However, it emerged through stakeholder engagement that the project was potentially providing significant benefits to them by providing work experience, improving their confidence, teaching them new skills, giving a sense of satisfaction from helping others, and in some cases, additional income from private tutoring. Data from the interviews described above show that many volunteers go on to get work once they have gained this experience. We did not have data on the numbers of private clients, so no income outcomes are included in the model. It is recommended that the project begin to systematically gather outcomes for this group so that they can be included in future analyses. Figure 5 sets out the theory of change for this group.

3.5 Tutors

In some locations, Citizens Online used paid tutors to deliver the courses. In many areas this should be considered as just another job, which would have high deadweight if considered in an SROI analysis (ie tutors would have recourse to other employment or other forms of income generation). In very rural and remote areas, such as North West Sutherland in Scotland, course co-ordinators made a case that engaging tutors was an additional way developing community capacity and increasing employment opportunities in very fragile areas with limited employment options. All tutors in Sutherland have gone through training and they act as ‘digital ambassadors’ and community engagers in hard to reach areas. They have often gone onto further opportunities as a result of this engagement. In this sense they have a similar theory of change to volunteers, which is represented in Figure 5.

Figure 5: Theory of change: Volunteers and tutors



4.0 Building the model

Once data on effectiveness has been gathered it is possible to construct the economic model. This is an Excel-based set of calculations that compares the value of the outcomes to the costs of running the programme. This section describes the adjustments that were made for additionality, the values that were used, the inputs and the assumptions used to predict benefit period and drop off.

The model is available at bt.com/connectedsociety.

4.1 Additionality

Additionality measures the net result of an activity or intervention, or the impact that a project has compared to doing nothing. At this stage of the SROI analysis, adjustments are made for three factors that attempt to isolate the net result: deadweight, attribution and displacement.

Deadweight is the most important of these three concepts. It attempts to measure ‘natural change’ or the extent to which the outcomes would have happened anyway. For example, an important consideration in this analysis is whether the learners that went online regularly after taking the course would have done so anyway through some other means eg with help from friends or family.

Attribution is an estimation of the proportion of the outcome that is attributable to the courses. For example, some clients who report experiencing a positive outcome may have achieved this through some other means unrelated to the course.

A displacement/substitution effect is the least important of the three and only relates to employment outcomes. Guidance on substitution from the Department for Work and Pensions suggests that it should

only be included in sensitivity analysis (Fujiwara 2010). Estimates on the rate vary, we have based on ours on Greenberg et. al. which estimates that in a slack labour market it may be as high as 20 per cent (Greenberg et al. 2011).

Once these adjustments have been made, only net outcomes remain, and it is these that values are ascribed to. The net outcomes represent the outcomes attributable to the courses, above and beyond what would have happened anyway. Although some outcomes data were available from the surveys collected by Citizens Online, there were few questions that aimed to isolate the extent to which these outcomes would have happened anyway. To compensate for this, other assumptions were used, either from our own research, or using secondary research. Table 4 describes all of the deadweight and attribution assumptions that were used.

Table 5: Deadweight and attribution

Stakeholder	Outcome	Deadweight	%	Attribution	%
Older people	Confidence	Proportion that said that other organisations or groups helped to achieve their goals (including family and friends), gathered from stakeholder engagement	53	Taken from jobseeker interviews, proportion that thought the course was the main contributing factor to the outcomes relative to other things	96
	Reduced social isolation	Urban: Proportion of older people that describe themselves as “not lonely”. Victor et al, 2005. The prevalence of and risk factors for loneliness in later life: a survey of older people in Great Britain.	66		
		Rural: Proportion that did not identify “keeping in touch with friends and family” as a reason for coming on the course, as indicated on the entry survey	47		
	Independence	Proportion of people that receive help from their family and friends who have internet access, e.g. purchasing items for them. National Audit Office, 2013. Digital Britain 2: Putting users at the heart of government’s digital services http://www.nao.org.uk/press-releases/digital-britain-2-putting-users-at-the-heart-of-governments-digital-services-2/	48		
	Meaningful use of time	Proportion that said that other organisations or groups helped to achieve their goals (including family and friends), gathered from stakeholder engagement	53		
	Cost savings	Recent research suggests that 46 per cent of people use the internet for online purchases but that you are 1.67 times more likely to do so if you are under 66 (White and Selwyn 2013). We therefore assume that almost 30 per cent of older people would have been shopping online through other means.	29		
Jobseekers	Employment	Calculated from a scale that captured how helpful participants found the course in getting a job: Not at all helpful - 0% through to very helpful - 100%	30	Average percentage that thought the outcomes were down to the course rather than other factors	96
	Confidence	Proportion that were using internet or computer prior to accessing the course	26		
	Economic savings	As for confidence	26		
	Convenience	As for confidence	26		
Volunteers	Employment	Calculated from a scale that captured how helpful participants found the course in getting a job: Not at all helpful - 0% through to very helpful - 100%	53	Attribution captured in deadweight	100
Paid tutors	Employment	Calculated from a scale that captured how helpful participants found the course in getting a job: Not at all helpful - 0% through to very helpful - 100%	60	Attribution captured in deadweight	100

4.2 Valuation

A central component of SROI is the inclusion of both traded and non-traded outcomes in the analysis. A key feature of SROI analysis is that it aims to measure value rather than cost, and where necessary, is for those outcomes that do not already have a financial value, employs financial proxies to do so. This corrects for prices that potentially convey a perverse measure of value. For example, all of the courses are aimed at learners that live in low-income neighbourhoods. If we valued internet access based on who pays for courses, we would find that people on a lower income value the internet less, but it may actually be because they are less able to afford the courses, and not a good measure of how people value them. In many instances we have based calculations on average or median incomes, rather than the lowest quintile to take account of this. A description of the financial values used is set out in Table 6. All figures were updated to 2011/12 using a GDP deflator.

Table 6: Valuation

Stakeholder	Outcome	Financial proxy description	Value	Source
Older people	Confidence	The value of feeling more confident in being with family and other people as a result of taking part in an adult learning course	£690	Department for Business Innovation and Skills, Valuing Adult Learning: Comparing Well-being Valuation to Contingent Valuation http://www.bis.gov.uk/assets/biscore/further-education-skills/docs/v/12-1127-valuing-adult-learning-comparing-wellbeing-to-contingent
	Reduced social isolation	The annual amount that single retired households who are mainly dependent on the State Pension spend on 'recreation and culture'.	£988	ONS Family Spending survey, 2012. Table 3.9, average income quintile group http://www.ons.gov.uk/ons/rel/family-spending/family-spending-2012-edition/index.html
	Independence	The average annual cost of hiring a carer for an hour a week. Annual figure for a 14 hour week converted into an hourly figure and multiplied by 52 weeks to get an annual cost.	£785.72	Independent Money Advice Service www.moneyadviceservice.org.uk/en/articles/care-home-or-home-care
	Meaningful use of time	Annual figure based on the value of time spent using the internet for "lifestyle reasons". Calculation based on 2 minutes per day for 67% of users aged 55-64 years old who use the internet on a daily basis, multiplied by an hourly rate of £3.68.	£77.87	Experian, 2013 Digital Marketer Report http://press.experian.com/United-States/Press-Release/experian-marketing-services-reveals-27-percent-of-time-spent-online-is-on-social-networking.aspx Office for National Statistics UK Online https://docs.google.com/spreadsheet/ccc?key=0At6CC4x_yBnMdHdsRWhkQld3dms5U1pHMzIWUW03a1E&usp=sharing#gid=14
	Cost savings	Calculation of average saving from using online shops and services	£560	(PriceWaterhouseCoopers LLP 2009)

The state	Savings from digitisation	Savings from transacting services online rather than face to face, by telephone or by post. Calculation from the average number of transactions multiplied by the difference between the average cost of an offline transaction vs. an online transaction	£51.56	(PriceWaterhouseCoopers LLP 2009)
	Health	Research indicates that a significant health benefit for older people of going online is a reduction in depression. Proxy calculated from the savings derived from reduced cost of treating depression	£242	Treatment costs of depression: Thomas and Morris 2003. Cost of depression among adults in England in 2000. Incidence of depression: Singleton et al 2001. Psychiatric Morbidity among Adults Living in Private Households, 2000.
	Employment	Savings from no longer paying JSA for employed persons, and income from tax revenue based on variable salaries	£9,247	www.gov.net for UK Tax bands, JSA rates and minimum wage rates
Jobseekers	Employment (short-term)	Based on 37.5 hour week at 6.31 per hour less NI and tax, and less JSA	£8,576	www.salarycalculator.co.uk
	Employment (long-term)	Based on median salary (20k) less NI, tax and JSA. This is used to take account of greater value of employment to long-term unemployed (12 months)	£12,233	www.salarycalculator.co.uk
	Employment (under-employed)	Assume a 25 per cent increase in hours (minimum salary)	£3,076	Just Economics
	Confidence	Half of the value of feeling more confident in being with family and other people as a result of taking part in an adult learning course. This is based on a partial outcome of people moving 2 out of a possible 4 points on a scale	£358	Primary research and Department for Business Innovation and Skills, Valuing Adult Learning: Comparing Well-being Valuation to Contingent Valuation http://www.bis.gov.uk/assets/biscore/further-education-skills/docs/vj12-1127-valuing-adult-learning-comparing-wellbeing-to-contingent
	Economic savings	Calculation of average saving from using online shops and services	£560	(PriceWaterhouseCoopers LLP 2009)
	Convenience	Time saving from using government services and online banking. These two were chosen as two activities with the most data but this proxy could be improved with better analysis of what people use their time online for	£348	Based on estimated saving per government transaction of 30 mins (Secure Identify Alliance http://www.secureidentityalliance.org/files/13-11-19-SIA_eGov_Study.pdf) and 54 transactions per person (Government Digital Service https://gds.blog.gov.uk/2011/05/10/digital-by-default/). This is a saving of 27 hours per year. According to One Economy 33 hours are saved each year through online banking in the US http://www.thebeehive.org/money/save-it/online-banking-and-saving . These estimates were multiplied by the minimum wage.
Volunteers	Employment (short-term)	Based on 37.5 hour week at 6.31 per hour less NI and tax, and less JSA	£8,576	www.salarycalculator.co.uk
	Employment (long-term)	Based on median salary (20k) less NI, tax and JSA. This is used to take account of greater value of employment to long-term unemployed (12 months)	£12,233	www.salarycalculator.co.uk
Paid tutor	Extra hours	Assume a 25 per cent increase in hours (minimum salary)	£3,076	Just Economics

4.4 Inputs

The calculations in this report were based on a total input cost of almost £420,870. The total project spend was reduced to reflect the scope of the data included in the model. The total project spend is based on 12,000 learners, whereas the data from Citizens Online only accounted for 2954 learners. Training that takes place through partner organisations is not monitored using the Citizens Online questionnaires. As a result we based our calculations on 25 per cent of the overall programme costs. This assumes an equal cost per learner across the programme.

SROI guidance recommends including volunteer time as a cost to the project, using a standard time valuation proxy, in order to quantify the 'true' cost of delivering a social programme. However, there are instances where this is not appropriate. For example, where an analysis seeks to quantify the social return on a specific financial investment such as is the case in this study. As a result, we have not included the volunteer time as a cost. However, we have included it in sensitivity analysis to see if it made a material difference to the overall ratio but it does not (see Section 4.2).

The total project spend has been much greater, as set out in Table 8.

Table 8: Project spend

Period	Amount	Funder
Jan 2011 to Mar 2011	£219,95	BT
Apr 2011 to Mar 2012	£264,355	BT
	£275,643	Other Partner
Apr 2012 to Mar 2013	£466,497	BT
	£302,828	Other Partner
Apr 2013 to Oct 2013	£233,250	BT
	£143,721	Other Partner
Total BT	£1,296,261	
Total leveraged	£722,192	
Programme total	£1,708,289	

5.0 Summary of findings

This section presents the findings from the modelling exercise. This includes the SROI ratio, a description of how value breaks down across the groups as well as the results of sensitivity analysis.

5.1 SROI ratio

The SROI analysis shows that the Get IT Together projects are forecasted to produce positive social value for digitally excluded people and wider society. Based on data from 2011/12, we forecast that in 2012/13 the present value^[5] of the social benefit created by the project will be over £1.5 million for an investment of over £420,000. This translates into a ratio of 3.7:1, or for every £1 invested in the programme over £3 of social value is generated to stakeholders. The present value of the benefits to the State is over £430,000, suggesting marginally positive return (1.04:1).

^[5]The Treasury recommended discount rate of 3.5 per cent was used.

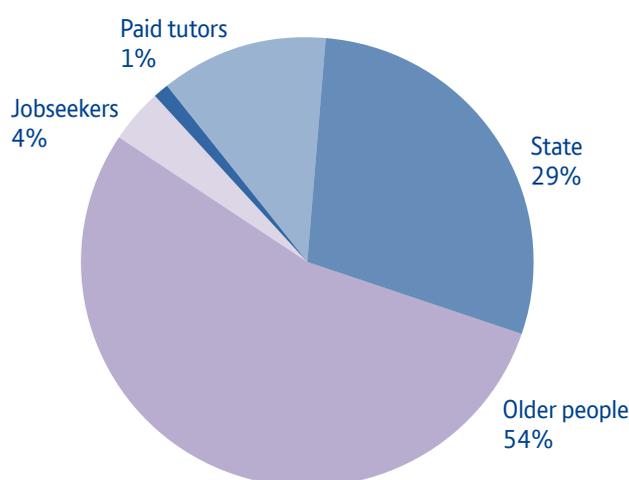
The service is valued by learners, and appears to be especially effective for older people who make up the largest client group followed by volunteer tutors. In terms of employment, the project is less successful with jobseekers themselves. Almost 900 people have been trained in digital skills for jobseeking since the start of the programme but only 11 people are known to have found work. Of these, only 30 per cent believe that the course was 'quite helpful' or 'very helpful' with regard to their jobseeking. The main employment benefits from the course come from the volunteering model. Almost all of the volunteers have gone on to take up paid employment and consider the course to have been very helpful in achieving this goal. Paid tutors in very rural areas have also benefited because of the dearth of employment in their locality.

The stakeholder engagement and quantitative data analysis suggest that there is significant scope to increase the social value of the Get IT Together courses and this will be discussed more fully in the recommendations section.

5.2 Share of value

This section describes how value breaks down across stakeholder groups. Figure 6 sets out the share of value across all stakeholder groups and clearly illustrates that the vast majority of value – 54 per cent – flows to older people. The second largest beneficiary is the state. The small amount of total value for jobseekers reflects the low level of effectiveness for this group.

Figure 6: Share of Value: All stakeholders



When we repeat the calculation on a per learner basis (Figure 7), we find that volunteers gain the most, followed by paid tutors and jobseekers. This represents the value of gaining work as a result of doing the course. For volunteers who move into work, they consider the experience to have been more instrumental in achieving that benefit than jobseekers do, which is why it is more valuable to them.

Figure 7: Share of Value: Per learner

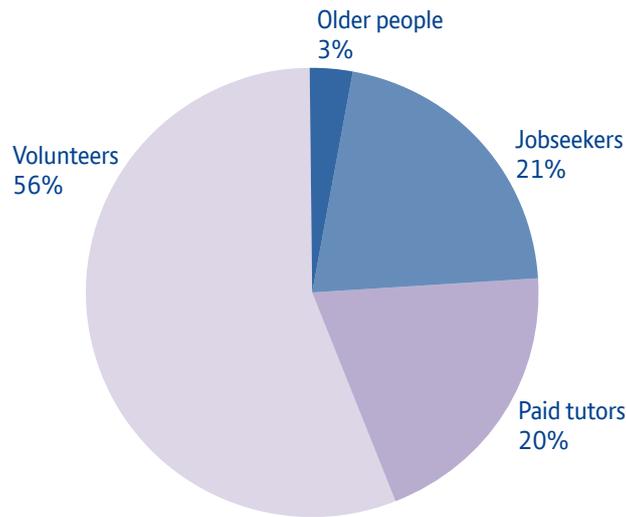


Figure 8 shows a breakdown in benefit amongst older people. As we can see, older people with a computer benefit most. This underscores the importance of providing access to computer hardware and the internet if social value is to be created for all learners. Computer and internet access at home is essential to ensuring that learning can be embedded and maintained and the analysis, if substantiated in a follow-up evaluative SROI, suggests that providing the courses to learners without hardware and internet access at home may not be as efficient. The recommendations section discusses options to address this issue.

Figure 8: Share of value: Older people

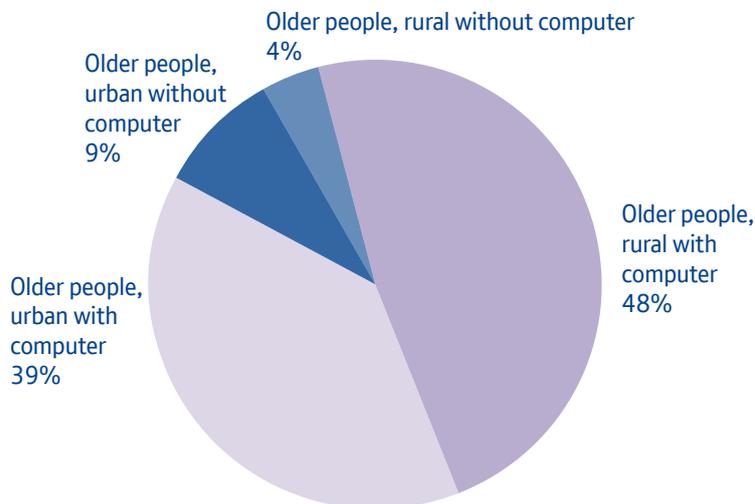


Figure 8 also shows that for this group of older learners with a computer at home, the most value is created for those in a rural setting. This is most likely for two reasons. Firstly, the lack of alternative learning provision in rural settings means it is unlikely that these changes would have occurred anyway. Secondly, access to the internet in a rural setting may be particularly vital to reducing social isolation and making day-to-day life easier by providing new avenues for completing tasks, such as shopping and interacting with government services.

Interestingly, for the group of learners without computers at home, the situation is reversed and urban learners experience significantly more value. This may reflect the greater opportunities in urban settings to access computers and the internet in public venues, such as libraries.

5.3 Sensitivity analysis

This step in the SROI methodology systematically varies assumptions in order to test for areas of sensitivity in the model. These are assumptions that, when changed, significantly affect the ratio.

The model was largely resistant to change in any one assumption. This suggests that the model is relatively stable. Varying individual proxies for example did not generally make a substantial difference. Table 9 presents the most noteworthy findings from sensitivity analysis. This is based on a base case ratio of 3.7:1.

Appendix 1 contains further results from sensitivity testing.

Table 9: Sensitivity analysis

Variable	Revised ratio	Comment
Extrapolate non-employment outcomes to jobseekers with lower attribution	5.74	This was the largest change in any assumption. Because our sample is very small (less than 5%) and not randomly selected we do not have enough confidence in this result to include it in the base case.
Ending benefit period after one year for all outcomes	2.4	It would be unrealistic to suggest that all benefit ends dramatically after one year, particularly for employment outcomes
Reduce unemployment deadweight to 40% for employment outcomes	3.94	The deadweight assumption is based on survey data and therefore reliable. However, this demonstrates the value that can be generated by getting people into work, even in small numbers.
Reduce/increase effectiveness by 10%	3.49 - 3.81	Takes account of a +/-10% margin of error due to small sample sizes.
Include a cost for volunteers time	3.45	Assumed 5 participants per class and 8 hours of teaching, travel and preparation. Does not make a material difference to the ratio.

6.0 Recommendations and conclusions

There are two benefits to improving the quality of data being collected from the projects. First, better data will provide a more robust evidence base to support future SROI evaluations and put the project on a sounder footing for demonstrating its value. Second, better data should help to maximise social value by diverting effort and resources towards the areas where they can create the most benefit. This section provides recommendations for how both the programme and the data collection system can be improved.

6.1 Programme improvement

The interviews in the stakeholder engagement phase established that the courses are, on the whole, well-liked and valued by participants for the opportunity they provide to develop computer skills and socialise with others. There are a number of ways these strengths can be built upon.

Most immediately, we recommend extending the duration of the courses, or offering follow-on courses. The learners in the stakeholder engagement phase were unanimous in seeking longer courses and the quantitative data also suggests that longer courses, or follow-on courses, would assist with embedding learning and, therefore, creating more sustainable change. This is particularly true for the older learners, who often start with very little knowledge and where learning is impeded by difficulties with remembering.

At present, the output-focused target setting, which requires each regional project to put 2000 learners through their courses, encourages throughput at the expense of meaningful change. It discourages work with existing learners who may need extra tuition or support to ensure that they are making the most of the training they already have. This is particularly pertinent as some of the courses are under-subscribed and coordinators were struggling to attract a sufficient volume of new learners. Where an enthusiastic learner forgets their skills because they do not have enough of a grounding in the basics, this is unlikely to represent good value for money.

The quantitative data very strongly shows that less value is created for learners who do not have the means to get online at home. This is because it is very difficult for those individuals to practice their skills outside of class, which is particularly important given the course length. As a result, the learning is rarely maintained beyond the course. Again, it is likely that if hardware and internet access is not provided to such learners, the investment in the courses may not represent good value for money. It may be, as Citizens Online is already investigating and trialling, beneficial to partner with organisations that provide access to recycled or low-cost computers.

A strong finding from the research was that value is also being created for the volunteers that deliver the IT courses in some of the project locations. Some of the volunteers are job-seekers and evidence from interviews suggests that volunteering builds confidence and provides a route back into work. For some volunteers who are recent immigrants, it can also reduce social isolation. Below we recommend putting in place data collection system aimed at volunteers. To maximise social value we also, however, recommend that Citizen's Online consider a more streamlined approach to involving and developing volunteers, which would require shifting some resources towards that part of the programme. We are aware that in one location the volunteers work towards a qualification and it may be worth looking into extending this across the programme. Feedback from volunteers also suggests that providing small incentives such as bus fares and lunch expenses would improve recruitment and retention as well as improve the overall volunteer experience.

The final area for development concerns jobseekers and disabled learners. Amongst the jobseeking learners we spoke to, the primary – and often sole – motivation for attending the courses was to fulfil the mandatory requirement to use Universal Job Match (UJM) in order to continue to receive jobseekers allowance. Whilst some learners found the courses useful, we heard fewer stories of significant change for job-seekers than we did for other groups. This was confirmed by our primary data collection amongst jobseekers. Even for those who got jobs they did not attribute much employment benefit to the course. As such, there may be missed opportunities to improve employability of the participants and we recommend assessing whether the current course delivery in relation to jobseekers should perhaps be revisited.

We were not able to speak to any disabled learners that did not also fall into the older people category and it is not clear whether people with disabilities currently constitute a distinct stakeholder group ie whether there are a sufficient number of disabled participants under 55. The older people with disabilities that we spoke to had very similar experiences to the over 55 group and therefore did not merit being considered as a separate group within this analysis with a distinct theory of change. In terms of younger learners, the greatest need may lie amongst groups with learning disabilities. It is not clear at present whether this is a group that is being reached by the programme.

6.2 Measurement recommendations

As the existing data collection mechanisms were not designed with an SROI analysis in mind, there were a number of data limitations that meant the current analysis relied heavily on imputed values and so has the status of a 'forecasted' rather than 'evaluative' analysis. This is important not just in the abstract, but also because it means that we can be less confident about our findings regarding the effectiveness of the courses and their value for money. For this reason, we make a number of recommendations to improve data collection and enable an evaluative SROI to be conducted in the future.

Capturing the most important benefits delivered by the Get IT Together programme

The current questionnaire is very narrowly focused on ICT-related changes, rather than the wider benefits set out in the theory of change. In addition to learning basic IT skills, these benefits include reducing social isolation, enabling a greater involvement in their local community, and supporting the pursuit of hobbies and interests. Regular, confident internet use should make day-to-day life easier, for example, by shopping online for groceries, using internet banking services, or making it easier to find out information. It is important that data collection tools are able to capture information on all of these outcomes.

A key factor in understanding the success of the programme is measuring 'effective access'; knowing whether people are frequent or regular users over the longer term and what they are using ICTs for. For example, an important outcome to learners is the opportunity to save money by using the internet and digital communication. However, the existing longitudinal survey does not currently record sufficient detail on how people are using the internet to enable a robust calculation of what these savings are likely to be. In addition, knowing more about internet use would give us a clearer picture of where well-being benefits were accruing eg by providing details on whether people were using it to pursue hobbies, or communicate with friends and family. Finally, the questionnaires currently include questions on confidence in using a computer. Whilst this is important to capture, it is not a proxy for psychological well-being. For the purposes of this study we have interpreted it as such, however we recommend including questions on more generic confidence as well.

Consistency between questions at different points in time

To enable a better understanding of the benefits derived from participation in the course and how these benefits endure over time, it is important that there is a consistency in the questions used in entry, exit and longitudinal questionnaires. This enables a comparison to be made over time, as well as providing a clear baseline against which to measure improvements. For example, identical questions need to be asked at each point in time regarding user's confidence and their frequency of use otherwise the answers are not comparable.

Defining project beneficiaries

Not all of the individuals who completed entry questionnaires, completed exit questionnaires. Whilst this is of course to be expected, given that not all entrants will complete the course, it is interesting to note that in some cases, exit questionnaires have been completed for individuals that only attended a single session of the course ie they only attended the final class.

This raises some questions over what constitutes a beneficiary of the course ie whether someone who attends one class should be considered the same as someone who has attended the whole course. Output targets, such as those that Citizens Online were working towards will often result in pressure to

inappropriately count people as beneficiaries, and this may have been the case here. Presumably, however, the outcomes achieved by those individuals who only attended one or a few sessions will be different than for those attending all of the sessions. We would therefore recommend defining what constitutes a beneficiary, drawing on the objectives of the course and what outcomes it intends to deliver for attendees. In addition, a better performance target might be to get learners to a particular skill level, rather than simply recording attendance. The questionnaire does not currently include any questions designed to measure skills levels.

Improve quality of control data

There needs to be consistency between questions asked to the intervention group and any control group that is being used eg people who attend taster sessions, in order to ensure that we have comparable data for the two groups. In addition, those who attend taster sessions need to be matched with programme participants to ensure that there is sufficient similarity to constitute a good quality control group. For example, it may be that people did not attend further classes because the course was too easy for them. In addition, as some of the intervention group also only attended one class, the control group may be closer to the intervention group than intended.

Improving information on attribution

Understanding how attendees' knowledge has improved as a result of attending the course is dependent on knowing what level of knowledge and access they had before starting the course, and what other forms of support they received during their time on the course that may have helped to achieve the outcomes.

It is important that data collection tools capture this information, including how often individuals use the internet and whether or not the user has previously received (or is currently receiving) support to access the internet - either from friends and/or family or by attending a previous/other training course. In addition, it would be useful to know whether people consider the course to be instrumental in achieving any outcomes reported relative to other support they receive.

Collect data for job seekers and volunteers

Different stakeholders have different theories of change and will require a different set of questions. The present SROI could not estimate the value created for all of the volunteers and unemployed individuals participating in the courses. For volunteers, as noted above, there is no systematic quantitative data collection that takes place at present. And although questions are asked about job-seeking, these are not relevant to older people and are not detailed enough for job-seekers. We recommend collecting more specific information on individual's employment history and demographics so that distance from the labour market can be more accurately assessed and used to calculate the social value generated.

The importance of collecting information systematically for volunteers and unemployed learners is underscored by the fact that although Citizens Online has a record of 38 individuals moving into work, there is little other information about these individuals and the degree to which their involvement with Get IT Together (either as learner or volunteer) contributed to them finding employment. Such information is key if an accurate assessment of effectiveness and value is to be made.

6.3 Concluding remarks

The Get IT together programme provides an important entry point to the online world for the digitally excluded, particularly for older people and those who live in rural areas. It also provides work experience for volunteers, which often provides a route into work for them. The programmes are well-liked and valued by participants and the analysis in this report suggests that they create significant value for those learners who have the opportunity to embed the learning from the courses through access to a computer and the internet at home. There are, however, also a number of opportunities to increase the value of the programme, most notably by increasing the length of the courses, formalising the involvement of volunteers, improving the offer to jobseekers and exploring opportunities for providing computer hardware and internet access to those learners who currently do not have this at home.

Better quality primary data in certain areas would have enabled a more comprehensive analysis. Although some gaps have been filled through additional primary data, more information on how people use the internet and what they use it for would have enriched the analysis. There is a growing literature on the social differentiation of internet access and use. Future updates of the SROI should aim to capture this. It would have the dual purpose of providing more detail on the benefits to participants of getting online but also potentially make a case for the wider social benefits of digital inclusion in reducing inequality.



References

- Attewell, Paul. 2001. "The First and Second Digital Divides." *Sociology of Education*, Vol. 74, No. 3. Graduate Centre, City University of New York.
- Bessell, Tracey L., Steve McDonald, Chris A. Silagy, Jeremy N. Anderson, Janet E. Hiller, and Lloyd N. Sansom. 2002. "Do Internet Interventions for Consumers Cause More Harm Than Good? A Systematic Review." *Health Expectations* 5 (1): 28–37.
- Brynjolfsson, Erik, Yu (Jeffrey) Hu, and Michael D. Smith. 2003. "Consumer Surplus in the Digital Economy: Estimating the Value of Increased Product Variety at Online Booksellers." *Management Science* 49 (11): 1580–96. doi:10.1287/mnsc.49.11.1580.20580.
- Capgemini Consulting. 2012. "Evaluating the Work of the UK Digital Champion and Race Online 2012." <http://ukdigitalchampionmodel.com/wp-content/uploads/2012/04/Evaluation-of-UK-Digital-Champion-and-Race-Online-2012-vFINAL.pdf>.
- Chen, Wenhong, and Barry Wellman. 2004. "The Global Digital Divide—within and Between Countries." *It & Society* 1 (7): 39–45.
- Colecchia, Alessandra, and Paul Schreyer. 2002. "ICT Investment and Economic Growth in the 1990s: Is the United States a Unique Case?: A Comparative Study of Nine OECD Countries." *Review of Economic Dynamics* 5 (2): 408–42. doi:10.1006/redy.2002.0170.
- Cotten, Shelia R., George Ford, Sherry Ford, and Timothy M. Hale. 2012. "Internet Use and Depression Among Older Adults." *Computers in Human Behavior* 28 (2): 496–99.
- DiMaggio, Paul, Eszter Hargittai, Coral Celeste, and Steven Shafer. 2004. "Digital Inequality: From Unequal Access to Differentiated Use." *Social Inequality*, 355–400.
- Dutton, William, and Grant Blank. 2011. "Next Generation Users: The Internet in Britain." http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1960655.
- Dutton, William, and Ellen Helsper. 2007. "Internet in Britain: 2007." <http://eprints.lse.ac.uk/26947/>.
- Foley, Paul. 2004. "Does the Internet Help to Overcome Social Exclusion." *Electronic Journal of E-government* 2 (2): 139–46.
- Fresh Minds, Fresh Minds. 2007. "Digital Inclusion. A Discussion of the Evidence Base". Prepared for UK Online Centres. FreshMinds.
- Fujiwara, D. 2010. The Department for Work and Pensions Social Cost-Benefit Analysis framework. Department for Work and Pensions. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/214384/WP86.pdf
- Green, Anne E., and Great Britain. 2011. *Job Search Study: Literature Review and Analysis of the Labour Force Survey*. Department for Work and Pensions. <http://statistics.dwp.gov.uk/asd/asd5/rports2011-2012/rrep726.pdf>.
- Greenberg, Speckesser, Knight, and Hevenstone. 2011. "Improving DWP Assessment of the Relative Costs and Benefits of Employment Programmes Working Paper 100". Department for Work and Pensions.
- Greenstein, Shane, and McDevitt, Ryan C. 2010. "The Broadband Bonus: Estimating Broadband Internet's Economic Value", Kellogg School of Management and Department of Economics, Northwestern University. <http://www.kellogg.northwestern.edu/faculty/greenstein/images/htm/Research/WP/Broadband%20Bonus%20-%20GreensteinMcDevitt-4.pdf>
- Gregory, Mary, and Robert Jukes. 2001. "Unemployment and Subsequent Earnings: Estimating Scarring Among British Men 1984–94." *The Economic Journal* 111 (475): 607–25. doi:10.1111/1468-0297.00665.
- Gurstein, Michael. 2003. "Effective Use: A Community Informatics Strategy Beyond the Digital Divide." *First Monday* 8 (12): 1–18.
- Helsper, E. 2011. "Policy Brief: Emergence of a Digital Underclass." Scribd. <http://www.scribd.com/doc/60556197/Policy-Brief-Emergence-of-a-Digital-Underclass>.

- Hüsing, Tobias, and Hannes Selhofer. 2002. "The Digital Divide Index—a Measure of Social Inequalities in the Adoption of ICT." *The Proceedings of ECIS*. <http://www.ifiptc8.org/asp/aspecis/20020042.pdf>.
- Loader, Brian D., and Leigh Keeble. 2004. "Challenging the Digital Divide? A Literature Review of Community Informatics Initiatives". Joseph Rowntree Foundation.
- Longley, P. A., and A. D. Singleton. 2009. "Linking Social Deprivation and Digital Exclusion in England." *Urban Studies* 46 (7): 1275–98.
- Nicholls, J., E. Lawlor, E. Neitzert, and T. Goodspeed. 2009. "A Guide to Social Return on Investment." Cabinet Office, London Http://www.Thesroi.network.Org/publications/cat_view/29-the-sroi-guide-2009.
- Oulton, Nicholas. 2002. "ICT and Productivity Growth in the United Kingdom." *Oxford Review of Economic Policy* 18 (3): 363–79. doi:10.1093/oxrep/18.3.363.
- Pilat, Dirk. 2004. "The ICT Productivity Paradox: Insights from Micro Data." *OECD Economic Studies* 38 (1): 37–65.
- Pilat, Dirk, and Frank C. Lee. 2001. "Productivity Growth in ICT-producing and ICT-using Industries: A Source of Growth Differentials in the OECD?" *OECD Publishing*. <http://ideas.repec.org/p/oec/stiaaa/2001-4-en.html>.
- PriceWaterhouseCoopers LLP. 2009. "Champion for Digital Inclusion. The Economic Case for Digital Inclusion". *Race Online* 2012. PriceWaterhouseCoopers LLP.
- Seale, Jane. 2009. "Digital Inclusion". A Research Briefing by the Technology Enhance Learning Phase of the Teaching and Learning Research Programme. University of Southampton.
- Selwyn, Neil. 2003. "Apart from Technology: Understanding People's Non-use of Information and Communication Technologies in Everyday Life." *Technology in Society* 25 (1): 99–116. doi:10.1016/S0160-791X(02)00062-3.
- Selwyn, Neil, and Keri Facer. 2007. "Beyond the Digital Divide." http://archive.futurelab.org.uk/resources/documents/opening_education/Digital_Divide.pdf.
- Shapira, N., A. Barak, and I. Gal. 2007. "Promoting Older Adults' Well-being Through Internet Training and Use." <http://www.tandfonline.com/doi/abs/10.1080/13607860601086546>.
- SQW Consulting. 2013. "The UK Broadband Impact Study."
- Stroetmann, K, T Jones, A Dobrev, and V Stroetmann. 2006. "e-Health Is Worth It". European Commission.
- The Chartered Institute of Taxation, Low Incomes Tax Reform Group. 2012. "Digital Exclusion". The Chartered Institute of Taxation.
- Turcotte, Julie, and L. Whewell Rennison. 2004. *Productivity and Wages: Measuring the Effect of Human Capital and Technology Use from Linked Employer-employee Data*. Department of Finance. <http://www.fin.gc.ca/pub/pdfs/wp2004-01e.pdf>.
- UK Online Centres. 2008. "Economic Benefits of Digital Inclusion: Building the Evidence". UK Online Centres.
- Vakhitova, Ganna, and Christopher R. Bollinger. 2011. "Labor Market Return to Computer Skills: Using Microsoft Certification to Measure Computer Skills." *Kyiv School of Economics Discussion Papers*. http://gaton.uky.edu/faculty/bollinger/Workingpapers/MSwagepaper11_06.pdf.
- Van Dijk, Jan AGM. 2005. *The Deepening Divide: Inequality in the Information Society*. SAGE Publications, Incorporated.
- Warren, M. 2007. "The Digital Vicious Cycle: Links Between Social Disadvantage and Digital Exclusion in Rural Areas." *Telecommunications Policy* 31 (6): 374–88.
- Warschauer, Mark. 2004. *Technology and Social Inclusion: Rethinking the Digital Divide*. MIT press. http://books.google.co.uk/books?hl=en&lr=&id=nU4zz1O88mAC&oi=fnd&pg=PR9&dq=social+value+of+digital+inclusion&ots=rTYr-Yp61v&sig=cdXU4o7vhfau_ND1aqsAp9270WM.
- White, Patrick, and Neil Selwyn. 2013. "Moving on-Line? an Analysis of Patterns of Adult Internet Use in the UK, 2002–2010." *Information, Communication & Society* 16 (1): 1–27. doi:10.1080/1369118X.2011.611816.
- Wilson, Kenneth R., Jennifer S. Wallin, and Christa Reiser. 2003. "Social Stratification and the Digital Divide." *Social Science Computer Review* 21 (2): 133–43.

Appendix 1: Sensitive analysis

Base Case Ratio: 3.70

Change	Increase attribution to 70%
New ratio	2.72
% change	-0.26

Change	End benefit after 1 year
New ratio	2.40
% change	-0.35

Change	Reduce attribution to 40%
New ratio	1.85
% change	-0.50

Change	Reduce drop off by 20%
New ratio	3.79
% change	-0.12

Change	Extrapolate non-employment outcomes to jobseekers with lower attribution
New ratio	5.74
% change	0.55

Change	Increase drop off by 20%
New ratio	3.27
% change	-0.12

Change	Put a minimum wage cost on volunteers time
New ratio	3.45
% change	-0.07

Change	Reduce unemployment deadweight to 40%
New ratio	3.94
% change	0.07

Change	Displacement at 20 per cent
New ratio	3.20
% change	-0.13

Change	Remove wider social costs from State employment benefit
New ratio	3.24
% change	-0.12

Change	Change all employment proxies to minimum wage
New ratio	3.46
% change	-0.06

Change	Change older people proxies to bottom income quintile
New ratio	3.55
% change	-0.04

Change	Change all employment proxies to median wage
New ratio	3.43
% change	-0.07

Change	Reduce effectiveness of older people outcomes by 10% (margin of error)
New ratio	3.49
% change	-0.06

Change	Increase older people deadweight by 20%
New ratio	3.76
% change	0.02

Change	Increase effectiveness of older people outcomes by 10% (margin of error)
New ratio	3.81
% change	0.03

Change	Decrease older people deadweight by 20%
New ratio	2.37
% change	-0.36

Change	Increase deadweight for economic outcome for older people to 48% (friends and family assumption)
New ratio	3.40
% change	-0.08

Appendix 2: Statistical results

This analysis tested the null hypothesis that possession of a home device did was not statistically associated with key indicators of success in this project. The indicators of success that were amenable to statistical analysis were as follows:

- Change in confidence
- Desire for further training
- Use at three months
- Frequency of use

We tested this by carrying out a Chi-square analysis, which is the appropriate test for categorical variables. We found that change in confidence and desire for further training were not statistically related to having a home device but that use at three months and frequency of use were highly statistically significant (Pr=.000; Pr=.000). It is still possible that those with home devices make greater gains in confidence and are more likely to go on to further training as there were problems with the quality of data for both of these variables. We conclude that having a home device increases the likelihood that people will be using computers over the long-term and using them more frequently.

Table 1: Use of computers at 3 months

Device	No	Yes	Total
Not using	37	56	93
Using	29	181	210
Total	66	237	303

Pearson chi2(1) = 25.5257 Pr = 0.000

Table 2: Frequency of use

Device	No	Yes	Total
Infrequent	28	68	96
Frequent	18	195	213
Total	46	263	309

Pearson chi2(1) = 22.4133 Pr = 0.000



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