



# **A Leading Digital Nation by 2020: *Calculating the cost of delivering online skills for all***

What is the investment needed to get everyone in the UK using the internet regularly with Basic Online Skills?

*Report by Catherine McDonald, for Tinder Foundation and Go ON UK, February 2014*



## Foreword by Jim Knight

It's been my privilege to be Chair of the Tinder Foundation now for two years. In that time I've seen the truly inspirational work UK online centres up and down the country do for some of the very hardest to reach and most vulnerable groups in our society. And I've seen how getting people online gets results - whether that's a new job, a saving, some key information or support, a sense of purpose, control or confidence.

What's more, we've been able to prove that those micro results add up to something of macro value - not just for the individuals involved but for the country as a whole.

Thanks to the Government Digital Service (GDS), we know that just getting people to transact with government online could save some £1.7 billion a year. Not a big enough number for you? Well thanks to the work of Martha Lane Fox, Go ON UK and Booze & Co, we also know that being a leading digital nation in the global economy would realise some £63 billion worth of benefit.

The fact of the matter is that digital exclusion is costing Britain money. Not having the access, motivation or skills to use the internet has a real social and human impact, affecting pay, health, educational attainment and more. That in turn has an economic impact, and it's now holding Britain back.

We've had and won this argument. It's not in dispute that a 100% digital nation could and would make Britain truly Great - saving the government and NHS billions of pounds, boosting the economy and building both human capital and social cohesion.

This report is, in many ways, an answer to the problem we've been talking about since we started to calculate the cost of digital **EX**clusion in monetary terms. It gives us a price for digital **IN**clusion, and calculates what it's going to cost us to give everyone online skills - some £875 million.

Yes, it's a big number. Yes, I know how many noughts that is. And no, I'm not foolish enough to assume the maths is anything like as simple as £63 billion minus £875 million. This report doesn't cover infrastructure, big businesses, SMEs etc etc - it's 'just' about getting individuals the online skills they need. But the fact is that the cost-benefit ratio is still pretty compelling - a drop in the ocean compared to the potential savings and benefits of investment.

This report certainly does not suggest it is the role of government to fork out for digital inclusion. On the contrary, it is something in which I strongly believe the commercial and voluntary and community sectors must be equal partners.

But when it comes down to it, it's worth it. We're worth it. So let's be bold - let's work together.

And let's get it done by 2020.

**Jim Knight, Lord Knight of Weymouth & Chair Tinder Foundation**



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## 1. Executive summary

This report sets out, for the first time, the investment needed to equip 100% of the adult population in the UK with the Basic Online Skills they need to regularly use the internet for themselves by 2020. At the time of publication of this report (February 2014), 78% of the UK adult population have Basic Online Skills, leaving 11 million people still left without the basics needed to use the web in the 21st century.

There are many benefits to getting the nation online. For example NHS could save close to £108 million if just 1% of their face to face visits were converted to visits to NHS Choices and the Government saves around £194 per person<sup>1</sup> when they do transactions over the internet rather than in person. The average household could save up to £560 a year just by shopping and paying bills online<sup>2</sup>. Using the internet also helps people learn, find a job and stay in touch with loved ones. Overall the UK's GDP would also benefit substantially.

This model outlines the investment required to get everyone sufficiently skilled that these benefits could be realised.

Some of these 11 million people will go online by 2020 without additional interventions, if the current levels of support offered by organisations like Tinder Foundation, Go ON UK and partners remain. These people have been identified by the model. If no **additional** activity occurred beyond current levels, we predict that 89% of the UK population will have Basic Online Skills by 2020. It is important to note the model assumes current levels of support and investment will remain in order for us to achieve this figure.

This means that, on current trends and using current programmes, around 6.2 million people in 2020 will not have the Basic Online Skills they need to regularly use the internet for themselves.

We believe that in order to realise the large potential benefits to individuals and the economy, and to be able to compete internationally, additional investment should be made to reach these remaining 6.2 million people by 2020.

Countries such as Norway have usage rates in 2013 of 98% and therefore by adopting an accelerated approach we could reach 90% well before 2020, with a goal to reach as close to 100% as possible by the end of the decade.

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<sup>1</sup> Tinder Foundation: <http://helenmilner.com/2014/02/07/measuring-our-impact-a-wow-moment/>

<sup>2</sup> Source: Manifesto for a Networked Nation, Race Online 2012, July 2010



The economic model calculates that the remaining 6.2 million people without Basic Online Skills in 2020 are not likely to be reached on current trends and with current programmes: by definition the current trends and programmes will not have affected them. These include around 2 million people of working age (around 5% of working age people) and around 4 million retired people.

In the model we assume that someone, for example, who has never used the internet will be much less likely to acquire Basic Online Skills than someone who uses the internet regularly but does not yet have the full set of Basic Online Skills. We also consider the effect of people's personal circumstances – such as employment status, disability and income – on this likelihood.

The model defines the investment needed to reach the final 6.2 million people with additional interventions, using the costs of current interventions as a baseline. The current cost for supporting an individual has been calculated at £47 based on the known costs of some current interventions. We assume that a lower likelihood of reaching these 6.2 million people on current trends and with current programmes means that future programmes may need to be even more specialist or even more targeted and therefore more costly. Our model shows that the average costs of supporting individuals within this final 6.2 million may be higher than £47 per person, especially where people have a combination of circumstances that each make them less likely to have online skills.

We calculate that the total investment required to equip  
**100%** of the UK adult population  
with the Basic Online Skills they need to regularly use the internet for themselves  
by **2020** is  
**£875 million.**

We do not believe the Government should shoulder the full responsibility, but we suggest it might be split equally between the Government; the private sector, and the voluntary and community sector.

The investment required to ensure a nation with 100% Basic Online Skills will be  
**£292 million for each sector.**

The report encourages Government and partners in the private and voluntary and community sectors to act early in investing in Basic Online Skills as the sooner the investment, the sooner and greater the benefits to citizens and to the UK economy. Our model shows that there is a need to increase investment now. We should not wait, if we



are to avoid a situation where 6.2 million people in 2020 are without Basic Online Skills and – as more and more of the world moves online – increasingly digitally excluded.

The figures should not be seen as precise predictions. Instead, they indicate – for the first time – the scale of investment that would be required over the period to 2020 to generate significant benefits to citizens and to the economy.

**Note:** The costs given in the report are the costs of equipping people with Basic Online Skills. It does not include the costs of devices or of broadband roll out or connectivity

## 2. Why calculate the cost?

It is clear that UK society and the UK economy will benefit if there are more people using the internet proficiently. Increasingly, internet skills are becoming ‘basic skills’ that are assumed by employers and service providers. People who lack these skills are at risk of being left behind the ‘digital divide’, unable to take advantage of the benefits – social, financial, developmental and more – the internet brings.

To get online people need to be ready, willing and able to use the internet to meet their needs. That means accessing affordable hardware, software and broadband connectivity and having the skills and motivation to use the internet.

Successive governments have invested tens of millions of pounds in getting more people online. It is currently an open question as to how much investment is required to reach everyone who is left online and who should pay.

This report answers that question. It derives the additional cost of equipping everyone with the skills they need to use the internet proficiently – in addition to current programmes. We should note that this report does not address hardware and software costs, or broadband costs, which would be additional.

We recognise that over time, increasing numbers of people are becoming proficient users of the internet and are taking advantage of the benefits it brings.

### **People who use the internet experience many benefits**

- People in Britain will buy £221 billion of goods and services online a year by 2016<sup>3</sup>, with the average saving per household estimated at £560 per year just by shopping and paying bills online<sup>4</sup>

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<sup>3</sup> Source: Investing in Britain’s Future, HM Treasury, June 2013

<sup>4</sup> Source: Manifesto for a Networked Nation, Race Online 2012, July 2010



- 72% of employers say they would not interview an entry level candidate without basic IT skills.<sup>5</sup> Getting online could really benefit the 75,000 jobseekers allowance claimants who currently have never been online.
- Getting online gives someone the potential to increase their lifetime earnings by £8,300<sup>6</sup>. People with good IT skills earn between 3% and 10% more than those without.
- Having a degree makes people 3 times more likely to use the internet than others<sup>7</sup>.

Having more people proficiently using the internet will also bring economic benefits to UK PLC. Go ON UK and Booz & Co found that, had the UK achieved global leadership in digitisation – which includes, but is much more than, getting more people online - it could add £63 billion to its annual GDP<sup>8</sup>. That figure includes a wide range of benefits, including:

- *Individuals* can expect better quality of life through improved education, health, wealth and well-being
- *Small and Medium-Sized Enterprises* would benefit, e.g. digital technology can enable SMEs to unlock as much as £18.8 billion in incremental revenue
- *Charities* can make a bigger impact for less cost, e.g. significantly enhancing fundraising potential
- *Government* can better meet the goals of constituents through universal digitisation – e.g. central and local governments can potentially recoup billions annually with the digital delivery of services<sup>9</sup>.

We recognise that helping everyone to have the skills to use the internet proficiently will not alone deliver £63 billion. But we anticipate that if every adult used the internet by default for their everyday transactions, it would go a significant way towards delivering these economic benefits.

The cost model that underpins this report was constructed with a working group made up of partners from the private, public, voluntary and academic sectors. It recognises that some people will start to use the internet proficiently either under their own steam or using current interventions and that others will not. It identifies dimensions that make people more or less likely to start to use internet proficiently and uses assumptions to

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<sup>5</sup> Source: ICM/UK Online Centres Survey, February 2012

<sup>6</sup> Source: Champion for Digital Inclusion - The Economic Case for Digital Inclusion, Price Waterhouse Cooper, Oct 2009

<sup>7</sup> Source: Cultures of the Internet: the internet in Britain, OxIS, Oct 2013

<sup>8</sup> Source: Go On UK & Booz & Co “This is for Everyone: The Case for Universal Digitisation”, 2012

<sup>9</sup> Source: Go On UK & Booz & Co “This is for Everyone: The Case for Universal Digitisation”, 2012



derive the cost of extra support for those who need it.

The model should be used to frame discussions about the future funding and investment required to get everyone using the internet proficiently.

### 3. What are we aiming for?

**We are aiming for 100% of over 16s in the UK to be regularly using the internet themselves, with Basic Online Skills, by 2020.**

We can break this statement down.

#### ***100% of all over 16s in the UK...***

We considered whether to set a goal lower than 100% - say 90% or 95% - but we see no reason not to be ambitious for everyone if we are to be amongst the nations who have achieved nearly their whole populations as internet users, such as Norway and Iceland, where the figure is 98%. The UK is already doing well in the digital economy race but for UK PLC to remain competitive, we need to be among the very best. We recognise that some people have personal circumstances that make it unlikely they will get online, but we believe that every single person could enjoy a benefit from being online. This is why we are aiming for 100%.

#### ***...regularly using the internet themselves...***

We believe regular use is important. Currently there are 1.2 million people who have used the internet in the past but have 'lapsed' and do not currently use it. That means they aren't able to take advantage of the benefits the internet brings.

We also believe it is important for people to have the skills to use the internet themselves and not rely on someone else. Some uses, such as Universal Jobmatch, are best done directly, not through a second party.

#### ***...with Basic Online Skills...***

We aim for people to have Basic Online Skills, as defined by Go ON UK.



**Table 1: Go ON UK definition of Basic Online Skills<sup>10</sup>**

Skills	Communicate	Find things	Share personal information
Activity	Send and receive emails	Use search engine  Browse the internet	Fill out an online application form e.g. <ul style="list-style-type: none"> <li>• Job application</li> <li>• Make a booking or purchase</li> <li>• Access government services</li> <li>• Register on social website</li> </ul>
Underpinned by: <b>Keeping safe online</b>	Identify and delete spam	Evaluate which websites to trust	Evaluate which websites to trust Set privacy settings

To reach our goal, it is not enough to have 100% of people using the internet regularly but only doing a limited range of activities or unable to keep safe online.

We recognise that, in future, we may want to aim for a higher skills threshold, as the range of everyday services that are provided online by default increases. *We anticipate this would cost more than our calculations.*

**...by 2020**

As this report shows, 2020 is significantly earlier than current trends. We believe the 2020 timescale would give UK PLC competitive advantage, meaning more of the potential economic benefits could be realised sooner.

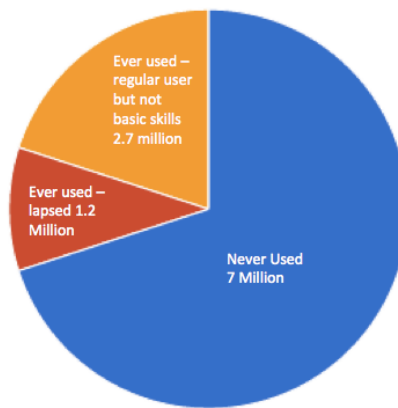
**Terminology:** in this report we use the term 'meeting our criteria' to mean people who are regularly using the internet themselves with Basic Online Skills

<sup>10</sup> Go On UK definition of Basic Online Skills

## 4. Where are we now?

In the UK around 22% of over 16s (11 million people<sup>11</sup>) do not have Basic Online Skills, and 78% do. If we are to achieve 100%, we will need to reach these 11 million people.

Figure 1 Breakdown of the 11 million people who don't meet our criteria<sup>12</sup>



Just over half of the 11 million people are over 65s, and 44% have low incomes<sup>13</sup>.

7 million of the 11 million people have never used the internet. There are also 4 million people who are either lapsed users – people who have previously been online but do not use the internet any more – or they are people who use the internet in a limited way, using some, but not all, of the skills that make up ‘Basic Online Skills’ as defined by Go ON UK.

## 5. Are the remaining 11 million people more or less likely to reach our criteria in future than others were?

The 11 million who do not meet our criteria are not a homogeneous group. They are diverse in terms of their personal circumstances – age, income, health, keenness to use the internet, access to devices and broadband and so on.

<sup>11</sup> Source: Ipsos MORI BBC Digital Capabilities Update, September 2013.

<sup>12</sup> Source: Author's analysis of Office of National Statistics: Internet Access Quarterly Update, November 2013 adjusted for the 11 million total. Note: numbers in chart do not sum to 11 million due to rounding

<sup>13</sup> Source: Ipsos MORI BBC Digital Capabilities Update, September 2013. 53% of the 11 million are over 65 years old.

Table 2 Analysis of the 11m by historical internet use and socio-economic group<sup>14</sup>

Socio-economic group	Historical internet use			Total (thousands of people)	
	Of the 11m... Thousands never used	Thousands who have lapsed (not used in last 3 months)	Thousands who use the internet regularly but don't have basic online skills		
AB	877	194	430	1,501	More likely to reach ↑ ↓ Less likely to reach
C1	1,420	325	721	2,466	
C2	1,461	268	595	2,325	
DE	3,257	451	1,000	4,708	
<b>Total</b>	<b>7,015</b>	<b>1,239</b>	<b>2,746</b>	<b>11,000</b>	

← Less likely to reach      More likely to reach →

Some people in this 11 million may be **more likely to be reached** than people who have recently met our criteria. For example:

- On current trends, increasing normalisation and affordability of internet-enabled devices and broadband, friends and family to advise and so on, means many people will get online without the need for extra interventions.
- Government and the private sector are increasingly providing services digitally by default - the market is driving people online.
- Current programmes to give people skills to get online are operating effectively and at scale and are increasingly well known and accessible.

Also, over time, as more digitally-engaged young people reach adulthood, we would expect the proportion of the population that regularly uses the internet to increase.

However, the remaining people may be **less likely to be reached** than people who have recently met our criteria.

For example:

- The current interventions haven't successfully reached them so far.
- They have relatively low historical use or may have never used the internet.
- Their personal circumstances in terms of skills, willingness or wider circumstances, may make it less likely that they will meet our criteria on current trends and with current programmes.
- We may need new, potentially more expensive, interventions for these groups.

**Note:** this report looks at how many of the 11 million might reasonably be expected, on the basis of current skills programmes, increasing affordability and current market trends, to develop the skills to start using the internet regularly themselves – and calculates how much it will cost to help the remainder.

<sup>14</sup> Source: author's analysis of: ONS: Internet Access Quarterly Update November 2013 and Ofcom: Adult Media Use and Attitudes Report, April 2013

## 6. Who will regularly get online with basic skills by 2020 anyway – on current trends or with current programmes?

Some of the 11 million people left to reach will meet our criteria by 2020 on current trends, or using current programmes – that is, without us doing anything **differently**.

We can identify the number of people this describes by looking at three dimensions – two that deliver growth and one that offsets that growth.

There will be *growth* in the number of people who meet our criteria by 2020 because of two dimensions:

- i. The population is ageing:
  - adults who already meet our criteria keep their skills as they age
  - rising 16s are more likely to be online than other groups
  - mortality rates in low user groups are higher.
- ii. There will be new take-up: people who don't currently meet our criteria will do so:
  - by making use of current interventions
  - under their own steam.

As mentioned above, there is increasing normalisation and affordability of internet-enabled devices and broadband – which means that increasing numbers of people will have internet-enabled devices even if they do not currently use them for internet access.

As also noted above, the Government and the private sector are increasingly providing services digitally by default, many of which are cheaper online, so people are getting more into the habit of using the internet – even if grudgingly so.

There is also the 'peer group pressure' factor. As more and more people are seeing the benefits of being online, people who do not meet our criteria are increasingly being offered encouragement and advice to get online. As increasing numbers of people have Basic Online Skills, those who don't will typically have friends and family who will encourage and help them.

In this analysis we assume that all of the current programmes and interventions delivered by Tinder Foundation, Go ON UK and partners will continue and support the current trend of take-up of internet skills and usage. That is, over the next six years, current programmes will continue to support new people.

*i. The population is ageing*

As mentioned above, we know that 78% of people currently meet our criteria. By mapping this onto the population growth projections for different age groups we can estimate that, on the basis of an ageing population alone, the figure will become around 84% by 2020. Note that this is 84% of the projected 2020 population, not of the current, smaller, population.

**Note on the model:** For annual population projections to 2020 we used the same underlying population change data that the Policy Exchange used in their 2013 report “Smaller, Better, Faster, Stronger - Remaking Government for the Digital Age” (in which they made projections on the numbers of people who will have ever used the internet in the future), which we understand was informed by the Office of National Statistics’ population projections. We assume in this calculation of the model that everyone who currently meets our criteria will continue to do so – this will be adjusted when we consider an off-set later in this section.

*ii. There will be new take-up: people who don’t currently meet our criteria will start to do so*

Looking at current trends of internet take up for different age groups we estimate that new take up will add another 5 percentage points, meaning 89% of the UK’s 2020 population of over 16s will meet our criteria without us doing anything different – that is, on current trends and with current programmes.<sup>15</sup>

**Note on the model:** The current data on people meeting our criteria is limited: we know that around 11 million (22%) of over 16s do not meet our criteria, meaning 78% do, but there is as yet no trend data. Trend data is expected to start to be collected later in 2014. In the meantime, we can infer trends, based on trends in people using the internet at all, adjusted for proportions in different groups meeting our criteria. We used trends in take up of internet use – from consecutive Office of National Statistics Internet Access Quarterly Updates – as a proxy for trends in meeting our criteria, then made adjustments to strip out growth due to ageing population (so as not to double count in our calculations) and so as to reflect proportions meeting our criteria.

*But there will be an off-set in the growth due to:*

- iii. People who have previously met our criteria but who have ceased to do so by 2020:
- people who currently meet our criteria but will have lapsed in their use by 2020.
  - people who between now and 2020 will come to meet our criteria for the first time will nonetheless by 2020 will have subsequently lapsed in their use.

Currently, around 3% of people who have ever used the internet have since lapsed in

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<sup>15</sup> Author’s analysis of current trends on internet take up by age group, adjusted so as not to double count the impact of an ageing population, and adjusted to show trends in meeting our criteria.



their use of it<sup>16</sup>. We can assume that, for the same reasons there are upward trends in new take up, the level of lapsing will reduce by 2020. On our calculations, by 2020 there will be around 860,000 people who, at that point in time, will have previously met - but will no longer meet - our criteria.

**This leaves around 6.2 million over 16s who, in 2020, will not meet our criteria on current trends and with current programmes.** We will analyse this group in the next section.

## **7. Who is left? How many people, and what considerations do we need to make about the likelihood they will meet our criteria by 2020?**

**After we account for people who will meet our criteria on current trends including using current programmes, less those that will lapse in their use, we calculate that, in 2020, 6.2 million people over 16 will be left.**

The 6.2 million includes just over 2 million people of working age<sup>17</sup>. This represents 5% of working age people, and includes 440,000 people aged 16-24. This will include people who have more complex needs such as literacy and numeracy and who are likely to have higher rates of unemployment. These groups may also interact more frequently than others with local and central government services, yet, on our model, will be less likely than others to access these services online. If they are not helped to meet our criteria it will be disadvantageous to the people themselves as well as more costly to Government and to private sector service providers.

The 6.2 million figure also includes just over 4 million retired people<sup>18</sup>. The internet is increasingly seen as a way to keep people connected, and there is a particular risk of social isolation in older people – with consequent health and welfare problems. Investment to help older people meet our criteria could have substantial benefits in terms of delivering the Government's aims for an ageing society.

If we want to achieve our goal of reaching 100% of people by 2020 we need to consider what reasons may make people in the 6.2 million less likely to meet our criteria with current programmes alone, and what the investment is that is needed to address these reasons.

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<sup>16</sup> Source: Office of National Statistics: Internet Access Quarterly Update, November 2013, Table 6A: Recent and lapsed Internet users, UK

<sup>17</sup> We have used 16-64 years old to mean people of working age

<sup>18</sup> We have used 65 years old and over to mean retired people

The 6.2 million people who are left are made up of several different groups. Considerations such as historical use, employment, income, education and skills, health and disability may affect how likely someone is to meet our criteria on current trends and using current programmes.

We assume that people who have never been online will be less likely to meet our criteria than those who have. We also assume that people on lower incomes (for example from socio-economic groups DE) will be less likely to do so than others. We know from statistics<sup>19</sup> that people with a disability, especially a work-limiting disability, are less likely to have used the internet at all. We assume that people’s employment status may affect their use, that is, that people who are not in a job – who are unemployed or retired – are less likely to regularly use the internet.

We can analyse the 6.2 million on the basis of these considerations, as follows:

**Table 3 Breakdown of the 6.2 million by historical internet use, employment, disability and socio-economic group (thousands)**<sup>20</sup>

Socio-economic group?	AB						C1						C2						DE						Total
	Work-limiting		Disabled DDA		Not disabled		Work-limiting		Disabled DDA		Not disabled		Work-limiting		Disabled DDA		Not disabled		Work-limiting		Disabled DDA		Not disabled		
	Job	No job	Job	No job	Job	No job	Job	No job	Job	No job	Job	No job	Job	No job	Job	No job	Job	No job	Job	No job	Job	No job	Job	No job	
Never used	0	5	17	272	36	204	0	9	27	440	58	331	0	9	28	453	59	341	0	20	61	1009	132	759	4,270
Ever used - lapsed	0	1	8	32	18	30	0	2	14	54	30	51	0	2	11	44	25	42	0	3	19	74	41	71	573
Ever used - regular use no skills	0	4	15	20	109	60	0	6	25	34	183	101	0	5	21	28	151	83	0	9	35	48	254	140	1,332
																									6,175

**Note on the model:** we have assumed costs are independent of age, though clearly different age-ranges will have different proportions of people in each groups – this is built into the model.

**Note on the model:** we will allocate, for each consideration, a factor that relates to the likelihood of people meeting our criteria on current trends or with current programmes

<sup>19</sup> Source: Office of National Statistics: Internet Access Quarterly Update, November 2013

<sup>20</sup> Author’s analysis of: Office of National Statistics: Internet Access Quarterly Update, November 2013, Office of Labour Market Statistics, November 2013, Office of National Statistics: Disability Employment Rates, November 2013

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## **8. What effect might these considerations have on the level of support and intervention needed to help people meet our criteria?**

We need to consider the degree to which the people who make up the 6.2 million may be less likely than others to meet our criteria.

Our model assigns factors to each group within the 6.2 million, that relate to their likelihood of meeting our criteria on current trends including using current programmes. This is based on factors that research<sup>21</sup> shows us affect someone's likelihood to use the internet: historical internet use, employment, disability and socio-economic group (as a proxy for income and skills).

### ***Historical internet use factors***

We assume that someone who regularly uses the internet but does not have the full set of Basic Online Skills is more likely to meet our criteria on current trends including using current programmes, than someone who has lapsed in their use. In turn we assume that someone who has used the internet but has lapsed in their use is more likely to come to meet our criteria than someone who has never used the internet.

### ***Employment factors***

We assume that someone who is not in employment – who is of working age but not in a job, or who is retired – is less likely to meet our criteria on current trends including using current programmes.

### ***Disability factors***

We assume that someone who has a disability, particularly a work-limiting disability, is less likely to meet our criteria on current trends including using current programmes. Research<sup>22</sup> shows that this is the case in terms of whether people have ever used the internet.

### ***Socio-economic group factors***

We assume that someone who is in socio-economic group AB or C1, which we have used as a proxy for income and skills, is more likely to meet our criteria on current trends including using current programmes than someone in a different socio-economic group.

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<sup>21</sup> Source: Author's analysis of ONS: Internet Access Quarterly Update November 2013 and Ofcom: Adult Media Use and Attitudes Report, April 2013

<sup>22</sup> Source: ONS: Internet Access Quarterly Update November 2013





Research<sup>23</sup> shows that people's socio-economic group affects their likelihood of using the internet at all, a little or a lot.

Within the 6.2 million there are different groups of people with every combination of the considerations above.

**Note on the model:** The model assumes that each of these considerations affect someone's likelihood of meeting our criteria with current trends and current programmes, but the variables in the model can be adjusted to alter the extent to which – if at all – this is the case.

The numerical factors assigned to these variables in the model are given in Appendix B

**Note on the model:** We assign the average person who currently gets online under their own steam or using current programmes a numerical factor of 1, meaning that they are certain to meet our criteria on current trends including using current programmes alone.

We assume that at least some people within the 6.2 million are less likely than others to meet our criteria on this basis. We assign a factor of less than 1 to indicate a lower likelihood of them meeting our criteria on current trends including using current programmes. For example for some groups it may be half as likely and we would assign a factor of 0.5, compared to the average person above. Our model assumes that likelihood of 0.5 means the programmes required would cost twice as much as current programmes.

Now, we need to calculate current costs and then weight them for the 6.2 million, according to the factors we have assigned.

## 9. What is the investment needed to help people who are left?

### *How much do current interventions cost?*

UK online centres have helped over 1 million people at an average cost of £30 per person. But we recognise this is likely to be an underestimate of the costs of all current programmes. Firstly, not all intervention costs are included: there are many other programmes and there are other funding sources. Secondly, not every participant will meet our criteria – not everyone will go on to use the internet regularly with Basic Online Skills.

For modelling purposes we assume a more accurate cost of current programmes and interventions that help people meet our criteria, is around **£47 per person**.

**Note on the model:** we assume that £30 underrepresents the accurate cost by 20% for each of the two reasons given, which leads to an accurate cost of £47 per person

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<sup>23</sup> Source: Ofcom: Adult Media Use and Attitudes Report, April 2013

How much will it cost to help the 6.2 million people who are left?

We can calculate the average cost per person in the groups we have analysed, using the current £47 cost per head calculated above, weighted by the factors we assigned for different groups. Each person in the 6.2 million will be a combination of the different dimensions of historical use, employment, disability and socio-economic group.

**Note on the model:** If someone was assigned a combined factor of 1 the cost would be £47. A combined factor of less than one leads to a higher cost.

For some groups, universal un-targeted interventions will be as, or more, cost-effective as targeted interventions. For other groups, interventions will need to be bespoke and targeted and likely high cost.

Table 4 Average cost of intervention per person in each group, using the assigned factors

	Socio-economic group AB						Socio-economic group C1						Socio-economic group C2						Socio-economic group DE					
	Work-limiting disability		Disabled DDA		Not disabled		Work-limiting disability		Disabled DDA		Not disabled		Work-limiting disability		Disabled DDA		Not disabled		Work-limiting disability		Disabled DDA		Not disabled	
	Job	No job	Job	No job	Job	No job	Job	No job	Job	No job	Job	No job	Job	No job	Job	No job	Job	No job	Job	No job	Job	No job	Job	No job
<b>Never</b>																								
Factor	N/A	0.21	0.42	0.29	0.60	0.42	N/A	0.21	0.42	0.29	0.60	0.42	N/A	0.17	0.34	0.24	0.48	0.34	N/A	0.15	0.29	0.21	0.42	0.29
Cost per person	£-	£223	£112	£159	£78	£112	£-	£223	£112	£159	£78	£112	£-	£279	£140	£199	£98	£140	£-	£319	£199	£228	£112	£159
<b>Ever - lapsed</b>																								
Factor	N/A	0.32	0.63	0.44	0.90	0.63	N/A	0.32	0.63	0.44	0.90	0.63	N/A	0.25	0.50	0.35	0.72	0.50	N/A	0.22	0.44	0.31	0.63	0.44
Cost per person	£-	£149	£74	£106	£52	£74	£-	£149	£74	£106	£52	£74	£-	£186	£93	£133	£65	£93	£-	£213	£106	£152	£74	£106
<b>Ever - regular no skills</b>																								
Factor	N/A	0.35	0.70	0.49	1.00	0.70	N/A	0.35	0.70	0.49	1.00	0.70	N/A	0.28	0.56	0.39	0.80	0.56	N/A	0.25	0.49	0.34	0.70	0.49
Cost per person	£-	£134	£67	£96	£47	£67	£-	£134	£67	£96	£47	£67	£-	£167	£84	£120	£59	£84	£-	£191	£96	£137	£67	£96

Our analysis shows that the lowest average cost would be £47 per person and that for others the average cost is as much as £319 per person.

**If we are indeed serious about reaching our goal of 100% of people meeting our criteria by 2020 we need to recognise that increased investment is needed so no-one is left behind.**

**Note on the model.** The model calculate different costs per person based on different cost factors due to different considerations, which can be varied. Therefore, these illustrated costs – which are based on the variables in the previous page – can vary based on variables used.

## Conclusion

By 2020 there will be 6.2 million people who will not have met our criteria on current trends including using current programmes.

As we have seen, this 6.2 million people can be analysed in terms of different dimensions of: historical internet use; employment; disability; and socio-economic group.

As we have also seen, the average cost of helping people within the 6.2 million to meet our criteria ranges between £47 per person and £319 per person, depending on the combinations of the different dimensions. See model for full details.

Looking at the 6.2 million collectively, the total investment required, on top of the cost of existing interventions, would be **£875 million**.

## 10. Who should pay – and how much?

If the total investment required was split equally between ...

- Government
- Private sector – though this would require a step change in private sector behaviour – perhaps through Government influence?
- Voluntary and community sector.

... for each sector the investment required is **£292 million** for each sector over the period to 2020.

The Government may need to provide a share bigger than a third, as the private sector may prefer to provide resources in-kind and the voluntary and community sector is already significantly investing in supporting people to get Basic Online Skills.

It is worth noting this is likely to be something of an underestimate as by 2020 we may want a higher skills threshold than we have used here, for example to access the increasing number of online Government or retail services. As Government and retailers put more services online and expect a higher internet proficiency of their users, the skills that are required increase – that is, the threshold of what will count as ‘basic’ skills will rise. Also, it is likely that as fewer and fewer people are left, interventions will have fewer economies of scale, so the per head cost is likely to go up. It is also possible that the cost of the current interventions is an underestimate.



The model ignores the costs of any hardware, software or connectivity – but it is likely that this will need to be funded for some people.

## Appendices

### *Appendix A – Summary of Numbers Used*

11 million	Number of people in 2013 who don't have Basic Online Skills, using the internet regularly – of which...
7 million	Number of people who have never used the internet
1 million	Number of people who are lapsed users of the internet
3 million	Number of people who use the internet regularly but don't have Basic Online Skills
6.2 million	Number of people who, in 2020, won't meet our criteria on current trends or with current programmes
100%	Target – aiming to reach 100% of people who aren't regularly online with Basic Online Skills
2020	Date by which to meet target 100%
£47	Historical cost per person of existing interventions
£47-£319	Range of costs of intervention per person, depending on people's historical use of the internet and other considerations
£1.5 billion	Total investment required for 100% of the 11 million people were to require costed interventions
£875 million	Total investment required for reaching the 6.2 million people who won't meet our criteria on current trends or with current programmes by 2020
33%	Proportion of total investment required to be borne by each of three sectors: Government; private sector; voluntary and community sector
£292 million	Suggested Government investment needed over the period to 2020

### *Appendix B - Numerical factors assigned to variables in this model*

The model assumes that each of these considerations – historical use, employment status, disability, socio-economic group – affect someone's likelihood of meeting our criteria with current trends and current programmes.

The model assigns the following likelihood factors based on each of these considerations.

As noted in the report, we assume that at least some people within the 6.2 million are less likely than others to meet our criteria on this basis. We assign a factor of less than 1 to indicate a lower likelihood of them meeting our criteria on

current trends including using current programmes. For example for some groups it may be half as likely and we would assign a factor of 0.5, compared to the average person above. Our model assumes that likelihood of 0.5 means the programmes required would cost twice as much as current programmes. We have assigned the following factors in our model.

**Internet History**

Never	Ever – lapsed	Ever – regular no skills
0.6	0.9	1.0

**Employment**

Employed	Unemployed/retired
1.0	0.7

**Disability**

Work-limiting disability	Disabled DDA but not work-limiting	Not disabled
0.5	0.7	1.0

**Socio-economic group**

AB	C1	C2	DE
1.0	1.0	0.8	0.7

The variables in the model can be adjusted to alter the extent to which – if at all – this is the case. For example, if were to assume that none of these factors affect people’s likelihood to meet our criteria on current trends including using current programmes, we would set all factors to 1.0, and the cost per person would be the current average cost per person, i.e. £47.



### ***Appendix C – Methodology Used to Develop This Model***

This model is based on analysis of available data and, where there are gaps in the data, we have made assumptions, which are clearly labelled as such. The aims, assumptions and principles underlying the model were arrived at following input from representatives from the Government Digital Service, Policy Exchange, Google, Point Topic, and the Broadband Stakeholder Group, as well as from Tinder Foundation and Go On UK.

The model was further refined with input from Tinder Foundation board members, Go ON UK and the Policy Exchange.

We are grateful for all the input we received.

This document has been prepared for Tinder Foundation, solely on the terms agreed with Catherine McDonald Consulting

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