



## Science and Technology Committee

Oral evidence: [Digital skills gap](#), HC 740

Tuesday 12 January 2016

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Written evidence from witnesses:

- [Tinder Foundation](#)
- [The Tech Partnership](#)
- [Barclays Bank PLC](#)
- [techUK](#)

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Members present: Nicola Blackwood (Chair); Victoria Borwick; Stella Creasy; Jim Dowd; Chris Green; Carol Monaghan; Graham Stringer; Derek Thomas; Matt Warman

In the absence of the Chair, Graham Stringer was called to the Chair.

### Questions 1-68

Witnesses: **Nick Williams**, Consumer Digital Director, Lloyds Banking Group, **Helen Milner OBE**, Chief Executive, Tinder Foundation, and **Margaret Sambell**, Director of Strategy, The Tech Partnership, gave evidence.

**Q1 Chair:** Welcome to the Science and Technology Committee. Nicola Blackwood, the Chair, is in the debate on the Housing and Planning Bill at the moment and has asked me to chair the start of this meeting, so we will go straight into questions. The Government are reviewing their digital strategy. What do you think should be the key focus of that review?

**Helen Milner:** I am Helen Milner from Tinder Foundation. I am very interested in basic digital skills. We have 12.6 million people in the UK who lack basic digital skills. Until we have a more accelerated programme to address that need, we will not have a truly competitive workforce, or a truly equal society. I want much more emphasis on basic digital skills.

My second point is about silo working. All of us would probably like a hot dinner, or whatever, for every time we hear someone like us talk about silo working, but in digital it is incredibly important that you have a strategy and the leadership associated with it to make sure that Departments work together. Departments currently work in silos and if the



strategy is not led by the digital Minister and other Ministers associated with it, with a remit to make sure they are leading and working with people in other Departments, you will never realise the benefits that a digital strategy can bring.

**Q2 Chair:** Mr Williams, could you introduce yourself?

**Nick Williams:** I am Nick Williams. I am a director of Lloyds Banking Group and look after digital within the bank. I would concur with Helen, and I would extend digital skills beyond consumers and look also at small businesses and the voluntary sector. The research we have carried out identifies that a third of small businesses do not have the right digital skills either, and in the charity sector it is over 50%. I would also think about the opportunity you have in the public sector. About 5 million people work in the public sector, and the ability to upskill those people to have basic skills to then transfer into the community is an ideal opportunity. Within Lloyds Banking Group our ambition is to have what we refer to as 20,000 digital champions in voluntary roles who pledge to help two individuals or organisations each year to increase their digital skills and take advantage of the digital opportunity. If you could achieve that type of model within government across the 5 million people who work in the public sector, just think of the reach you would have, particularly in the communities and those who would benefit most from gaining digital skills today.

**Q3 Chair:** Margaret Sambell, would you introduce yourself?

**Margaret Sambell:** I am here for The Tech Partnership, which is a network of over 800 employers who are convening to address the UK's digital skills issues. From the point of view of employers, the focus is on the need to address the skills problems that inhibit growth for business and productivity improvement. Fifty per cent. of all employers have digital skills gaps, even in their specialist technical workforce, and over 70% of large companies and 49% of small companies recognise they have that problem. There are severe problems in cyber-security and areas of growth like big data, so employers are very keen that the digital skills strategy not only addresses the points made so well by Helen and Nick, but looks at the whole digital skills pipeline in every regard, from basic skills through to specialist skills and the capabilities of leaders and managers to exploit technology.

**Q4 Chair:** Helen Milner, we have had some figures about the extent of the digital divide. Could you describe the problem in a bit more detail, either quantitatively or qualitatively?

**Helen Milner:** You may be aware of the charity Go ON UK, chaired by Martha Lane Fox. In consultation with probably all of us here and others, it created a basic digital skills framework, which has on it five basic digital skills that people need to function in today's society. It is focused on individuals and on the foundation skills that everybody, whether or not they are in work, needs in order to take part in society.

Of the 12.6 million, almost half—46%—have never used the internet; not at all, ever. The others, who lack one or more of the five basic digital skills, are typically from the poorer socio-demographics. They are people who have low educational attainment and lower



skills. Some of them are in employment. Of the 12.6 million, 4.5 million are in work and have employers who could look after their skills needs. There is also a percentage who are older; half of all people over 65 do not have the basic digital skills they need. It is important, however, to emphasise that there are people in the age group 16 to 25 who also lack those skills. Ellen Helsper, from whom you will be hearing in the second panel, wrote a great paper about there being no such thing as a digital native. Because somebody has a smartphone and uses Facebook does not mean that they can apply for work online and that they will be able to transition easily from school into work; many of them lack the basic digital skills. Disabled people are also disproportionately offline, partly because of the disability itself but also because half of all disabled people are below the poverty line. Income and educational attainment are the two biggest indicators that people are lacking basic digital skills. Is that enough?

**Q5 Chair:** That is pretty comprehensive. I suspect you have answered some of the questions that are to follow from members of the Committee. That is a pretty clear definition of digital skills. Is there a meaningful difference between digital skills and digital literacy?

**Helen Milner:** Now you are getting into quite a technical issue. I do not think there is. For the sake of this Committee, there isn't. In Tinder Foundation, we work with 5,000 hyperlocal partners in public libraries and community organisations. We seek to enable people to have the digital skills they need to function in their lives and become independent users. We do not want there to be a kind of dependency where people come to a local community centre or library when they need to do something, and public services, in particular, are important. Many people call on family and friends to do those transactions for them, both commercial shopping and banking and transactions with government. We want people in our society to be independent and to be able to do that themselves. When people talk about the technicalities of skills, literacy and fluency, that is talking about our goal. The goal is that people can function properly in society, and it does not really matter what label we put on it.

**Margaret Sambell:** From an industry point of view, employers would say that digital literacy is the basic layer of digital skills, and it goes from there all the way up to the skills of the most experienced technical specialist the nation relies on to run the technical infrastructure. Digital literacy is one type of digital skill, and employers very much hope that the digital strategy will encompass the gamut of the skills base that the country needs to be competitive in a digital world.

**Q6 Chair:** What are the biggest barriers to people obtaining these skills, and how does one overcome those barriers?

**Helen Milner:** Of the people who have never used the internet, 80% say that they are not interested, so we still have a massive part in relation to motivation and explaining relevance. As to the barriers to gaining basic digital skills, part of it is about confidence and trust. We know that with reading and writing literacy people create coping mechanisms. I mentioned proxy users. People are taking part in the digital world. They are just not doing it themselves; other people are doing it for them, so they are coping without having to do it themselves. We need to make sure that we help people to take that journey. I met a chap in a library on Friday as part of our iPad programme, which is one of the

programmes we are funding. He said that his family do his transactions on the internet for him but they are not patient enough to show him how to do it. For him to learn it himself, he had to come to a session in a library with some tablets. He was functioning, because his family were doing it for him, but he kept asking them to train him and they would not do that.

I have a five-point plan, if you would like to hear it. The first thing is leadership. There is lack of co-ordination and lack of a real goal for what we want to achieve. Having a single digital Minister who is also the Minister leading on digital inclusion is a good thing, but, as I said earlier, I want to make sure that means he is leading other Departments to do what they want to do with digital inclusion. We work with NHS England, BIS, HMRC and DCLG on their digital inclusion plans.

The second thing is a cross-sector business case, but that is not just research for research's sake; it is about having a business case that means you are going to do something about it. We have too many reports and research that do not lead to anything. We need a behaviour change programme, which I think the private sector could lead. We need to work with employers of low-skilled individuals to make sure they take responsibility to upskill their workforce. Our network is great. We help about 250,000 people a year. We could probably double that, but you can do the sums; it would mean we got to 12.6 million at quite a slow pace, if you are just looking at people like me to make that happen. We need to think about cross-sector and multiple-skills programmes. The last thing is that, as the digital divide is deepening, the cost of devices and broadband is a big issue for some of the people who are still offline.

**Q7 Carol Monaghan:** I am listening with interest when you talk about older people using iPads. In our family my 80-year-old father will not stop tinkering with his iPad, and we have to undo all the damage that has been done. I suppose we should be pleased he is using it. Helen, you have talked already quite a bit about some of the challenges that prevent individuals going online. Could the panel say a little about the benefits those people would gain by becoming more digitally literate? I am thinking of economic, social and health benefits.

**Nick Williams:** I will answer the question for both consumers and small businesses. From a consumer perspective there are clear benefits, or what we refer to as a digital dividend, in terms of the opportunity to access cheaper utilities and goods and the ability to purchase online. If you are not online, you cannot access discounted services and products. Clearly, there is reach as well. Staying connected with family and friends is a huge opportunity for those who may feel isolated. For example, I had one customer in the north-east who banked weekly in a local branch but became the primary carer for her husband when he fell ill. The only way she could remain connected was by digital means. She did her banking online, but she also remained connected with her social circle by the same means.

There are clear benefits in terms of efficiencies. In my own organisation there are cost efficiencies in terms of the level of automation you can provide; you increase the experience consumers can have, so you have a better experience in terms of the service you provide.

For small businesses, there is a clear opportunity to save time. The big challenge for small businesses, as well as one of the barriers, is that you have to invest time to save it. The big challenge for a small business is that every hour of the day really matters to drive the business forward. Do you have the time to invest in something that will save you time in the long term? Thirty per cent. of the small businesses we surveyed said that saving time would be the key benefit for them.

There is a revenue opportunity. Digital pays no respect to geographical boundaries, so it allows my business a distribution reach beyond the local community I may operate in. Another case study is a local butcher in Bury who marketed his services and products in Bury market. He was turning over about £750,000 and had declining revenues, but through Facebook and taking advantage of digital, led by his daughter, he managed completely to transform his business and started to distribute his products across the north-west. It was a very simple step forward with basic skills but a huge opportunity for him as a small business.

**Margaret Sambell:** I agree. Digital inclusion applies both to businesses and individuals. When we are looking at the benefits of digital skills, we should be considering the productivity gains for all businesses in all sectors from the effective use of new technologies such as big data, which has proven to have direct benefits in terms of productivity gain and competitiveness. Cyber-security is obviously a top issue for all businesses today. The digital skills need is at the consumer level, but businesses that are digitally excluded, even those that are online, are very much constrained by digital skills issues.

**Q8 Carol Monaghan:** Can I take you back slightly to the individuals themselves? Nick, you talked about the economic and social benefits to individuals. What health benefits can be gained by individuals?

**Nick Williams:** Sharing experiences from my own business, we know that, in terms of mental health, financial worry is one of the major drivers. As an example, consumers who use mobile banking can check their financial position and have greater control over it and worry less about that type of scenario. For me, digital gives control back to the consumer, to be able to help themselves avoid individual stress and strain.

**Helen Milner:** We have had a programme with NHS England specifically supporting people to move from basic digital skills to using them for health. We have helped over 200,000 people. We are towards the end of the third year. There is evidence to show that people are more likely to eat better and be interested in their health if they are online. We also know that people who use the NHS Choices website are less likely to go to their GP. Obviously, there is a balancing act; we want people to go to their doctors when they need to do so.

**Q9 Jim Dowd:** But not today, I think.

**Helen Milner:** Yes, we saw some of the doctors outside. We know that people who have those skills are more confident generally. They have improved self-esteem and mental



health, so being more connected to others and to their local community because they have digital skills is enormously important for their health.

**Margaret Sambell:** It is also increasingly a passport to employment. It is very difficult to have a job without any digital content today, and of course there is a link between employment and health and general wellbeing.

**Q10 Carol Monaghan:** Helen, could I ask about work that is being done collaboratively between Government and private companies to ensure that the workforce are becoming more digitally upskilled?

**Helen Milner:** As a charity, we are in the middle, so we work with both Government and employers. As Nick said, a significant thing is working with employers whose employees can become digital champions and go into libraries and other community centres, through Tinder Foundation and others, to support people to develop basic digital skills. We work with different Government Departments on digital inclusion to put their policy and employers in the third sector together to make sure that individuals are developing those skills. An example is a programme we have with DCLG; the policy area is community integration. We are working with the BBC and the British Council to help people develop English language skills. This is for settled migrants who have very low levels of English. They are developing English language skills, but on the back of that they are also developing digital skills. We are working with Government and with the third sector, and we are also helping in important policy areas but embedding digital inclusion into that policy.

**Q11 Derek Thomas:** You have touched on this briefly, but it would be nice to hear a bit more. To what extent are small and medium-sized businesses and charities investing in digital skills? Based on your answer, how does that affect our ability as a country to compete with other European colleagues?

**Nick Williams:** In terms of research, every year we conduct the Lloyds Bank SME digital index, and we are tracking that. When we publish it in April, it will be the third year we have done that. The benefit of doing it every year is that we can track progression, or not, as the case may be. That is a key point, because digital skills are a journey. Just because you have digital skills today does not mean that in 12 or 18 months' time you will still have the requisite set of skills. Because technology is moving so quickly, you have to invest continually.

The survey highlighted that three quarters of small businesses were not investing in digital skills, which is a concern for us. A third did not have the right skills, a third believed they had the right skills and did not need to do more, and a third were just not interested. Identifying and motivating small businesses and charities to understand the benefits for them of engaging and continuing to invest is a key driver in improving digital skills for small businesses.

**Q12 Derek Thomas:** That is the question. What is the answer?

**Margaret Sambell:** One of the things employers in The Tech Partnership are focused on is apprenticeships and how, with the levy and the resultant increased uptake of apprenticeships that we expect as a result, incorporating digital skills in all apprenticeships is a very sensible move. Whether employers are upskilling existing workers into new jobs or bringing people into the workforce from outside with substantive training programmes, embedding the right digital skills that are transferable between jobs makes a great deal of sense. That sort of initiative can help.

**Q13 Derek Thomas:** That would be Government-driven and through the colleges. Is that how it would be delivered?

**Margaret Sambell:** Yes, with standards set by employers.

**Helen Milner:** They funded us to do a pilot in the north-east of England, which goes back to the hyperlocal point. Typically, we work with smaller small businesses and sole traders. Last year we helped 18,000, but that was with an individual-facing programme. Smaller businesses often do not know how to use email; they are not themselves shopping online. You say, “We’re going to teach you how to set up your e-commerce,” but they have never bought anything online, so there is a point in starting with those foundations.

Another thing we found goes back to the trusted local person who can do training and support. We were rolling things out and helping community organisations. The pet shop owner said, “Could I come to that?” If you are in a local community, you feel that you are the same as the person who runs the community centre if you run the shop next door. It comes back to the point about foundations. Some of our small businesses do not have those foundation skills. We can still access them through outreach, creating those foundations through trusted people in those communities.

**Margaret Sambell:** It would also be very helpful to put those foundations back into the education system before the age of 16 when they meet Helen. A more comprehensive view of digital skills and capability throughout the education system would be extremely helpful.

**Nick Williams:** One of the additional things we did last year was to work in partnership with GDS. We conducted a review and audit of all the support arrangements in place for small businesses and charities to access across the UK. The audit found that, first, there was a lack of awareness and motivation to seek support. When you found it, it was quite fragmented and disproportionately weighted to certain regions; I think 50% of all the available support was in the London boroughs. Therefore, the rest of the UK was under-supported, particularly the voluntary sector.

Government can think about having a more transparent support arrangement, which is proportionate across the country, to help small businesses and drive a campaign of awareness of where to go for help. What Helen articulated, from the pilot we ran in the north-east, was that small businesses want to learn from people they know, trust and work with. We got the greatest benefits where small businesses were learning from one another and did not necessarily compete, because they were working in different sectors; they knew one another and understood the community they worked in and they could share

ideas. That face-to-face contact was where we saw the greatest upskill in terms of digital skills in small businesses.

**Q14 Derek Thomas:** Were the three quarters of SMEs that were not equipped users of your business? Did they bank with Lloyds, or was it much broader than that?

*Nick Williams:* We surveyed 2,000 small businesses that bank with us today, which is representative of the 5 million small businesses in the UK.

**Q15 Derek Thomas:** What are the new technologies that will help those small businesses to grow? Are they available and cost-effective? Are businesses convinced that they would help them to grow, and are they within reach?

*Margaret Sambell:* New technologies such as cloud computing and access to applications online obviously take down the capital costs, so the technological evolution is definitely helping to bring down the cost of entry into that world. Businesses are operating online effectively using platforms such as eBay or Amazon. They are very low-cost ways of accessing a global market, but the problem is that, unless the businesses see the potential of technology and have the confidence and basic skills needed to exploit it, they do not do so. The UK is far from a global leader in that space, and we could be.

*Nick Williams:* We are not talking about super-advanced technology, in terms of the latest thing being launched and devised by the big tech firms; we are talking about basic things that small business can do—have a Facebook page, or a simple homepage website, or an email address where you can be contacted. The key point is that you may not be online but your customers are, and if you are not there, they will go somewhere else. Simply registering on Yell.com so that people can find you is an example. Have a social media presence; have a Twitter handle so you can communicate with your actual and potential customers. Lots of the things small businesses can do are readily available. You do not need a huge amount of investment up front. The research showed that connectivity and cost were not primary drivers of not being online; it was more a motivational and attitudinal driver.

**Q16 Stella Creasy:** I have a quick follow-up on all of this. All of you make a very powerful case about the importance of investing in digital skills. I would like your feedback on where the private sector comes in. In particular, I am thinking about schemes such as Barclays' digital eagles, which seem to answer some of the questions you are asking about basic skills. How can we see more of that happening? Nick, I appreciate they might be your competitors, but do you have some feedback about what would encourage companies to create schemes like that, which seem to me to do exactly what you are asking for by connecting the dots for people in those ways in a format they would get to?

*Margaret Sambell:* I think that is happening increasingly. The Tech Partnership, as I mentioned earlier, is a growing network of now 800 employers who are collaborating on digital skills. The reason they collaborate is to do the things that need to be done collectively and that no employer can do on their own.



**Q17 Stella Creasy:** I am sorry if I was not clear. I am looking at it from a consumer perspective, as opposed to an employee perspective. Obviously, what Barclays is offering is not for employees but for consumers of its services, and that seems quite an interesting angle.

*Margaret Sambell:* Yes. When employers collaborate like that they are doing so not for the good of their individual company, but because the nation needs it. For example, they do a lot of work in schools to help address some of the issues—to stop people coming out at 16 unable to use technology and uninterested in it. They do a lot of work to inspire young people to get involved in technology. I think one part of the answer is to go back further, in terms of age, and help young people.

**Q18 Stella Creasy:** Can I press you on that? Carol has gone, but for her granddad, who is 80 and is obviously not going back to school, there is a target for things like the digital eagles programme. As far as I can see, that is for commercial gain because it is a service that also connects people to their bank and makes some feel that their bank is being useful. How can we get more private sector companies and service providers to feel that they want to be useful to consumers of all ages in helping them learn to use these sorts of skills?

*Helen Milner:* You are going to hear from Steven Roberts from Barclays in the second witness panel. You are right that the private sector definitely has a role to play. I spend a lot of time talking to the private sector and asking, “How can you help us?”, because we need as much help as we can get. Through Tinder Foundation and the UK online centre network we reach 250,000 people a year. There is no private sector equivalent on that kind of scale because it is nationally devised and hyperlocally delivered. Having employees who are digital eagles, or digital champions—Nick said that Lloyds already has 11,000 of them—is about making sure those people are appropriately trained so they know what they are doing; that they are useful when they help people; and that they are part of a co-ordinated plan. I would look to Government to provide the leadership and convening for those private sector partners so that when they are switched on, inspired and want to help as part of the overall movement, what they do helps and works; and that we work with Barclays, Lloyds and many others in partnership with them to make sure that, if people need a bit more than a few hours, they can come to one of the UK online centres and spend several months developing the skills they need at the pace they need.

We should look at the things the private sector is good at, such as promotion. The BBC is also excellent at that, but if we have a real problem with motivation—if we still have a very big chunk of people who do not use the internet thinking that they cannot, or that it is not for them or that it is not interesting—we should ask the private sector what they could do and how they could talk to their customers about going into other parts where they could do the training and help with motivation and behaviour change.

**Q19 Matt Warman:** I think we have about 30 seconds before the Division bells ring. It should be naked self-interest that drives people to go online, and for all sorts of reasons it is not. You have talked about what private business can do. What is Government’s role in this, other than banging the drum? Where are the road blocks that Government should be helping with? No one wants to say anything.

**Helen Milner:** I am perfectly happy to say it. Leadership. Get a goal and decide what you want to do. Get everybody in a room. Hold people to account. Money. We spend loads of money—

**Chair:** We have to suspend the hearing for a vote. We will start again at 3 o'clock.

*Sitting suspended for Divisions in the House.*

*On resuming—*

Nicola Blackwood resumed the Chair.

**Chair:** We are now quorate again. Thank you very much for your patience while we voted, and for your understanding that, unfortunately, I am unable to split myself into two people—yet. One of the reasons I am on the Science and Technology Committee is the hope that we will discover ways to make sure that we can do more at the same time in this place, as we often need to. You are very kind and understanding, although I know that Graham will have chaired the Committee outstandingly. We will continue where we left off. I understand that Matt Warman was mid-question. Matt, would you like to carry on where you left off?

**Q20 Matt Warman:** The Government's role is money and leadership. I am quite keen to pin down what that looks like tangibly. It is cheap and easy to bang the drum. We have been at this for a very long time. Martha Lane Fox surprised herself, if you like, by not cracking the nut more rapidly. In your minds, is there anything that we have not done that Government could be doing?

**Margaret Sambell:** Greater cohesion and avoiding fragmentation would be extremely helpful. Things tend to get a bit fragmented with different initiatives. There should be a greater sense of cohesion and also greater collective employer leadership across industry. I do not mean just the tech industry, but people who are responsible for digital across all sectors. Working with employers on solutions to problems would be a very good way to talk about common issues, whether it is digital inclusion or, more broadly, digital skills issues. For Government to discuss these matters with employers, share the concerns and come up with joint solutions would be effective, because industry has a lot of capability to bring to the table when it is working together.

**Nick Williams:** I would add two things. First, you need to think about where UK citizens are who are not online and how you could access them. The majority of people who are not online you will touch in everyday life, whether it is through the NHS, social housing and so on. There is a real opportunity for broader local government to access those people face to face. We should also think about how receptive people are and—we discussed this earlier—who they want to learn from. Industry has a role, but people want to learn from people like them. Most people who are not online will have a friend or family member

who is, so how can you connect with and reach those people to get them to help the family and friends get online too? The second point would be to think about how you connect online industry to Government services. Are there certain industries and organisations that can help small and medium-sized businesses, the charity sector and consumers? You could be more focused on how you want to use the private sector to support the Government agenda.

**Q21 Matt Warman:** Is there much consensus on what the private sector wants when it says it wants a more digitally skilled workforce? You touched on this before to a degree. I completely appreciate that you want a coherent approach that has one consistent message, but is much work being done on the other side of that which says, “This is a definition of what we need”?

**Margaret Sambell:** A lot is being done through The Tech Partnership with research among employers across the nation. There is a surprising degree of common view of what the core issues are and what needs to be done about them.

**Nick Williams:** We touched upon this earlier. We need to differentiate and clarify. When we talk about digital literacy or digital skills, these are everyday skills that every citizen in the UK should have so that they have the ability to access digital services. In industry someone has to build those services and capabilities, in the same way as GDS and the Government have to build the online capabilities for consumers to consume. Those types of skills are another challenge for us. Go ON UK’s research indicates that we could see a jobs shortfall of well over 1 million in terms of having the right skills in the UK to develop digital services and products going forward for our consumers to consume. That is an additional challenge to the basic societal need to be able to use digital.

**Helen Milner:** To go back to leadership and basic digital skills, I do not think the Government have ever articulated what they think the goal is. Is it that 95% of the entire population should have the five basic digital skills as devised through the Go ON UK framework, for example? Is it that it is 100% of people under the age of 65? There should be much more clarity about it being not just a good thing, but actually something that the Government significantly believe in. There is often a fear that setting targets means money has to follow, but we should be saying, “How do we, all together, achieve this? How do we set out a clear plan to achieve a goal?” At the moment, it feels to me that it is a “nice to have”; it is definitely on the list of things that are funded, but there is no real drive or pace about how many people we want to reach and how quickly we want to achieve it. Within a digital strategy, having a better skilled population who can take part in a 21st-century digital world is essential. The rest of the world is catching up. We had an advantage; we were the most digitally enabled population for a while, but now we are not. There are lots of people snapping at our heels. I would like clear articulation and then clear leadership across sectors and across Government Departments. I know I have said that before, but to have so many people devising policy and targeting people in the lower socioeconomic groups, with low educational attainment, and not embedding digital inclusion as part of that is just madness. At some point you will come back and put a sticking plaster on the fact you did not do it in the first place. You can deliver the policy more efficiently through digital by upskilling the citizens you are targeting with that policy. That is what I mean by leadership. It does not necessarily have to cost any more to co-ordinate it much more

efficiently, recognising that digital is not just something the digital economy team does. All civil servants should be doing it and thinking about how to upskill the citizens they are facing with those services.

**Q22 Chris Green:** SMEs and charities play a crucial role in our economy, and many have not taken up the opportunities that digital offers. Are there any short-term solutions we can provide to deal with this problem, especially to get small businesses and charities to become far more digitally engaged?

*Helen Milner:* It goes back to what Derek Thomas asked about earlier. It is local—enabling local organisations that may already be working with small businesses and charities, or who are already skilled in supporting and training local people. That would definitely work and you would get more small businesses and charities involved.

**Q23 Chris Green:** Would that be a Government project, because money comes into it? We have to provide funding to organisations locally to deliver it.

*Helen Milner:* It would need some money and co-ordination, but it does not have to be just Government; it could be cross-sector. Lloyds funded a pilot we did in the north-east. Google rolled out Google garages, where small businesses have been learning digital skills in libraries and other places. The private sector is interested in this as well, so it could be a co-ordinated programme.

**Q24 Chris Green:** Isn't one concern about this kind of solution that part of the divide is about people's attitudes and what they themselves want to do? Even if there is a grand Government scheme to deliver this for people, many people locally would not take it up, and after the project was finished many would not maintain websites, or pay for it the following year. There are all kinds of ways that it could very quickly fail. We often hear about the idea of lifelong digital learning. That is so much about people's personal attitudes and approach. If we deliver this kind of big scheme, we are not dealing with that fundamental characteristic.

*Margaret Sambell:* Once small companies and charities get online they get business that way, so it is a little different in some ways. If you have a website and are getting business that way, or you are using social media and attracting new customers, your motivation is to keep going. The hurdle is often lack of knowledge of what it can do for your business. If you can help people over that hurdle by giving them the capability and helping them put the basics in place for their business, because they are business people they see the revenue coming in.

**Q25 Chris Green:** That digital divide and understanding in the first place is the hurdle.

*Margaret Sambell:* That is the key in the case of digital. You can get people over that hurdle and then the business drives it.

**Q26 Chris Green:** There is a strong argument for building that understanding.

*Margaret Sambell:* Definitely.

**Q27 Chris Green:** Other things follow, but once the argument is made to convince people you then have to have the resources to deliver it.

*Margaret Sambell:* To show them how, yes.

**Q28 Chris Green:** On the hardware side of things, what can the Government do to increase the digital infrastructure that businesses and individuals need? Is there anything more that needs to be done, or are we reasonably well connected as it is?

*Helen Milner:* On connectivity—I am not sure whether that is your question—we have more people in well-connected parts of the country who do not use the internet than people who cannot access connectivity. We have a bigger basic digital skills problem than a Knotts Bottom poor connectivity problem. I mentioned earlier that some people who have developed some basic digital skills and need their own personal devices to practise and to use the internet cannot afford those devices. Affordability of the device itself, and of broadband, be it mobile or fixed line, is a real issue. In particular, because of the way broadband is sold, where you have to have a landline, the cost is at least £20 a month, and for people on low incomes that is not affordable. There is definitely an affordability issue. If you are looking for a technology solution, as tablets improve in quality and decrease in cost, the device issue may improve, but the cost of connectivity itself is still unaffordable for a lot of people.

*Margaret Sambell:* To refer to Nick's point about access to people and how that can be leveraged, including the point I made earlier about getting into schools and helping younger people understand the opportunity, putting younger people in contact with small businesses in their local communities, helping them do projects, helping companies to get online and understanding how to use social media for business can have mutual benefit. More initiatives like that, to bring younger people together with small businesses, or older people who need help, can be done through the mechanism of schools and projects.

**Q29 Chris Green:** You can make greater use of the community, and it is useful for children to go out and get involved.

*Margaret Sambell:* Indeed. There are many synergistic benefits.

*Nick Williams:* A great example is libraries. There is free online access in libraries, but how many people know about it? That is the question. How do you raise awareness? If you can drive understanding and address the attitudinal challenge, in terms of understanding the benefits you can gain, you create motivation. Then you have to remove the barriers to entry. How do I get online, and where do I go for support? To go back to my earlier point, the support that the Government provide is fragmented and disproportionately concentrated in certain areas of the UK. We need to make people aware of where to get support and make it readily available across the UK, not just within certain areas.

**Q30 Chris Green:** Is there a particular example where you can say to the Government, “This is a great scheme that we should roll out across the country”? Are there any particular examples you would like to highlight?

**Derek Thomas:** Are they commercially sensitive?

**Nick Williams:** We are due to launch a scheme in partnership in the next couple of weeks to support something I have just referred to. It not only gives people the ability to get online, but puts them in an environment in which they have access to skilled individuals who can help them. Getting online and having accessibility is one thing, but having someone there to help you understand what to do and how to do it is another. I come back to the fact that people want to learn from people like them. Therefore, they can create a personal affiliation, whether it is just because they are demographically very similar and have things in common, or because the things they have in common are relationships and family members. People do not look to Lloyds Banking Group to help them get digital skills. That is not our purpose in life as an organisation, but what we can do is help people understand the benefits of being online on a much broader basis. If they come to us we will help them, but people will turn to other parts of society and other organisations first as a way to understand what they can do.

**Helen Milner:** Chris, I was trying to be hesitant and humble, but we help 250,000 people through a network in which we already co-ordinate 5,000 hyperlocals. Those are all the public libraries and community organisations on the ground training people to use the internet and be part of the digital society. There are far more than that in our communities who we could support, train and bring into that wider network. I believe the person infrastructure is there, and the technology infrastructure is there. The question is how we co-ordinate that and make sure they are paid for their hard work, as well as supporting volunteers to be part of that movement. There is definitely an infrastructure that we could do more with for individuals and small businesses.

**Q31 Chair:** Helen Milner, I was struck by a comment you made. You said that there are more people who are not digitally literate in areas that are most connected than in areas that are not. I am trying to understand why that might be, because it is counter-intuitive, isn't it? You mentioned affordability. Nick Williams touched on some issues to do with a postcode lottery of training, skills opportunities and things like that. What do you think is behind that? What is the cause of people not seeing the benefits of digital skills? If it is not availability of digital, what is it? What is the hit list of things that we need to tackle in our digital skills strategy recommendations?

**Helen Milner:** There is a high correlation with people of low educational attainment, low skills and low income who have either never used the internet or do not have the basic digital skills they need. Typically, they live in high-density, low-income, urban areas where there is good broadband. That is why that statistic is relevant. Stereotypically, you will have poor northern cities with good broadband but a lot of people on low incomes who have poor or no basic digital skills. Two thirds of internet users in the lowest socioeconomic groups, D and E, use fewer than seven websites ever, so even when they are online they are not grazing in the way people with higher levels of digital skills and confidence do.

We have two challenges. One is about creating the right kind of cross-sector movement of relevance, and the Government need a bold statement of ambition to get people behind that. That is everybody from the volunteers on the ground all the way up to big business. Then they have to make sure that people who have a little digital skill and may be relatively happy with the five websites they are using are enabled to see how their lives would be improved if they broadened the remit of what they do on the internet. You need people to get online in the first place and understand the internet, but you also need them to develop that broadening.

**Q32 Chair:** You have taken me neatly to my last question before we move on to the second panel. You are quite clear that the Government's digital strategy needs to articulate the goal more clearly. You mentioned a few issues about having more leadership and more efficient cross-departmental working. If you were to articulate the goals you would like to see in that digital strategy—how many people it should reach and how quickly—what would be your dream list of requests?

**Helen Milner:** On the goal, I would say 98% of the population with basic digital skills by 2020. Norway is already there, so it does not feel terribly ambitious. Obviously, 100% is scary. We absolutely need a cross-sector council or taskforce, led and convened by Government, for action on motivation—behaviour change, not just marketing slogans. On basic digital skills, I would look at employers of low-skilled people to see if there is an incentive for them, because that is where the 4.5 million employed people will be. The Government should convene the broadband providers in particular to look at whether there is anything to be done to lower the cost for people who really cannot afford it so that, once they develop the skills, they can go on to practise them and use the internet. It is all very well people within the UK online centre network supporting people to get those skills, but if they then cannot afford the broadband and the kit, they will not be fully functioning members of our digital society.

**Q33 Chair:** Margaret Sambell, do you have a list?

**Margaret Sambell:** The digital strategy should obviously include a focus on digital inclusion, but it should also be much more far reaching in terms of the digital skills needs of the nation; for example, ensuring that digital is included in any Government-funded training programme, and doing something much more radical in schools to inspire the next generation, whether they be the new business leaders, charity leaders, those starting up their own companies or just those working in a digitally enabled workforce. That would include a particular focus on gender, because that is a significant issue in terms of the digital skills of the nation.

**Q34 Chair:** Nick Williams, are there any specific things that you feel are missing from the strategy and policies?

**Nick Williams:** I would call out just one thing. The digital strategy needs to be embedded in existing overall Government strategy. What we do not need is a competing, conflicting digital strategy that consumes resources and does not deliver the existing objectives of the Government. I would encourage us to think about how our digital strategy can underpin

and deliver today's existing objectives, and even accelerate some of them. I would use it as an enabler for the Government to deliver their existing plan rather than creating something in isolation that will be prioritised against other objectives at the same time.

**Chair:** That is very helpful. I thank all of you for coming in and being patient with us while we voted. You have been an outstanding panel and have kicked off this very important inquiry in great style. There may be a few questions we want to follow up, so I hope you will write back to us and educate us. We will let you know when we are nearing completion of the inquiry and publishing it.

### Examination of Witnesses

Witnesses: **Steven Roberts**, Strategic Transformation Director, Barclays plc, **Dr Ellen Helsper**, Director of Graduate Studies, Media and Communications Department, London School of Economics and Political Science, and **Charlotte Holloway**, Head of Policy and Associate Director, techUK, gave evidence.

**Q35 Chair:** Welcome to today's evidence session. As you heard from the previous panel of witnesses, we are delving into what I think is becoming the nationally important issue of the country's digital skills. There are some quite stark figures about where the UK is at the moment with digital inclusion and digital readiness, given where digital skills are going to be in terms of our future economic prospects. As a follow-on from the previous panel's answers on the Government's upcoming digital strategy, where do you think the focus should be? We heard some comments from the previous panellists, which you may or may not have heard. They felt that the Government need to articulate more specific goals, putting out very clear messages about how many people they want to be digitally literate and by what time, and they want to see more cross-departmental efficient working.

We had some very specific requests from our previous panellists: the Tinder Foundation wants to see 98% of the population digitally literate by 2020; The Tech Partnership wants to see digital included in any Government training programme; and Lloyds wants to ensure that digital strategy is embedded in existing Government priorities as an enabler, rather than prioritised against other existing Government commitments. Charlotte Holloway, maybe you would start with your key priorities for the digital strategy.

**Charlotte Holloway:** Thanks very much to the Committee for inviting techUK here today. We represent about 900 companies of all shapes and sizes from across the tech sector, from rapidly growing UK-based SMEs across the regions to large multinationals. We are really thinking about how to make the UK the best possible place in the world to do tech, but also to adopt and draw on the benefits of digital.

When we think about the digital strategy—we are currently putting together our thoughts—we need to think big and bold. We also need to think about how digital will be a fundamental enabler and a solution to all the big challenges facing the Government. If we look at some of the issues around increasing productivity—quite a buzzword at the moment—the UK has a serious challenge in that regard. We know that adoption of ICT



and tech can drive productivity, particularly for small and medium-sized firms. The OECD says that 5% to 10% gains are quite easily achievable.

If we look at reducing the deficit and public debt, we have the smart delivery of digitally enabled public services, with citizens having a seamless experience in how they interact with the state. There are things like the notify scheme, recently announced by the Cabinet Office, indicating different types of alerting systems enabled through digital—one idea could save up to £600 million—and making sure that all are safe, secure and included in the digital revolution and the future direction of the economy. All of those are big things that a digital strategy should be thinking about, along with where the new jobs are going to come from and what the future economy looks like. These are big issues that a digital strategy needs to look at.

What do we want to see? There is a lot in that. I could talk at length about what the tech community we represent wants to see. Be big, be bold and do not be afraid to tackle how this works across different Departments, as the previous panellists said. We have to think about the economy and inclusion points and what the nature of Government services looks like. Be bold and stitch together those different points. There are very specific points, which I think we will come on to, about the computing curriculum and how apprenticeships can be leveraged. We can talk about lots of these things, but be big, be bold and be prepared to tackle the big issues that the Government face over the next five years and beyond.

**Q36 Chair:** Thank you. Steven Roberts.

**Steven Roberts:** I am Steven Roberts from Barclays. I am a scientist by background—I have a PhD in geophysics and am a visiting professor at Huddersfield—but my day job is head of innovation and engagement for colleagues and customers in Barclays. What that means in real life is that I am responsible for things such as the Barclays digital eagles, putting free wi-fi in branches and cheque imaging.

Thank you very much for giving us the chance to come and tell you about our experience in digital. The first thing is about setting the agenda and the objectives we want for digital, and a lot of it follows what Charlotte has just said and what Helen said at the beginning. The objective should be something bold, such as the UK being the most digitally savvy country in the world. I am not giving specific numbers, but we should definitely be aiming for that. That has to be for the whole population, not just the really tech-savvy people or those who are digitally included. Our experience is that there is a huge forgotten middle. We have seen that from what happened in trying to engage our colleagues and going out to the customer base. I agree completely with Helen that there is a huge role around convening and co-ordinating. There is a lot of activity out there and it could be better co-ordinated, and not just between large corporates like ourselves, Government institutions and NGOs, but between all of those. We have some nice examples of how we shared some of what we are doing with the Department for Work and Pensions and what it is now picking up.

The last thing is to keep coming back to digital skills and looking at them. This is not a one-off exercise. The digital revolution that is happening means that there is not one skill set; it will keep changing. Those are the three areas.

**Q37 Chair:** Thank you. Dr Helsper.

*Dr Helsper:* Thank you for giving me the opportunity to talk alongside this wonderful panel. Overall targets are fantastic and are definitely needed, but the risk with them is that we do not really know how to get there, so any digital strategy focused on digital skills needs to be more specific about what skills, for whom and with what tangible outcomes. What are we really trying to achieve? That cannot be a one-size-fits-all approach. Obviously, that complicates things, but that goes back to the discussion with the previous panel. Digital is now part of everything we do. Part of a press release said that about 90% of jobs will require digital skills, while 100% of lives will in some way be digitally influenced.

At the moment what is not clear in the debate, and what we have not really talked about, is what we mean by digital skills, so not just general, basic skills. What skills do you need for what kinds of jobs and sectors and access to what services? That needs to be more specific. In a digital strategy that can be a push; it can set the terms on how to think about this in an organisation. What is it that you are trying to achieve, not digitally? What are you trying to achieve in providing services and products and engaging with your customers, but also with your employees and employers, because this goes across? Unless we are clear about the tangible outcomes we are trying to achieve in general, it will be hard to think about the digital skills people need to survive, because those skills might be different depending on different sectors.

When we look at what has been written about the digital strategy and digital skills, we see that the tech industry has been strong. It has seen a big gap in very specific technical skills to do the advanced-level stuff. We are much less clear about what everyday skills are needed to do your shopping, get a driver's licence and function in any organisation at any level. That is something a digital strategy can push organisations to think about.

In the previous panel there was discussion about what the role of Government might be. Government is one of the biggest employers in this country. It also has one of the biggest client bases in the country; Government services reach everybody. Besides providing a framework of reference, setting the terms and being more specific about what we are trying to achieve, leading by example should also be a fundamental part of the digital strategy; the Government are going to say, "This is what we want to do in health, education and industry, and this is how we are going to achieve it by looking at what kind of targeted needs and outcomes-based intervention programmes we can do to get our employees involved, as well as the customer and client base—the citizens we are working with who are trying to lead better lives." That is what it is about.

**Q38 Chair:** Dr Helsper and Steven Roberts, both of you touched on what the end result of the digital strategy is, which is trying to prepare our labour force and people for the future. What do you think needs to be done to prepare the labour market for what is going to be an increasingly automated environment? What would we need to put into a digital strategy in order to do that?

*Dr Helsper:* This comes back to my point that we need to be clear about what skills we need. At the moment one of the problems we have is that skills are often defined around



the use of very specific platforms or apps. We are trying to get people online by giving them training in how to use online banking, or in the use of specific social media—“let’s get people online to use them.” The risk of that is that in a few years’ time there will be different apps and platforms, so to prepare citizens and individuals living in this country and the world for that future, where they should be able to confront whatever is coming and whatever change there is, we need to think about transferable skills, just as we have done in education. We do not assume that somebody has learned how to read a certain type of text and, when an individual writes a different book, he will say, “Oh, I only learned to read that kind of text.” That is not literacy. What we are looking at are transferable skills that allow people to be flexible and adapt to changing environments. Lifelong learning was mentioned by the previous panel.

In a fully automated society—although we can question whether that is really the future, because we are still going to be humans living in that society—we need to figure out what those transferable skills are. That might need a bit of a rethink in terms of applications or specific platforms. Now it is mobile, but we do not know what the future might bring. Preparing the workforce is about giving them the skills and literacy to be able to learn and adapt in an environment that will be very rapidly changing and that we do not know about. Probably we cannot speculate about what it might mean. The need to think about transferable skills that are applicable in different environments is key for that automated society.

**Q39 Chair:** Is that your view, Mr Roberts?

**Steven Roberts:** I agree with a lot of what you have said. I was just reflecting on the experience we went through in Barclays with the digital eagles. Maybe it is helpful to share that. Just over three years ago we made the largest purchase in the world of tablets—iPads as they were. We wanted to make a statement about becoming a more digitally savvy organisation. One of the surprising things that happened as a consequence of that purchase was that we did not see take-up and usage of those iPads in anything like the way we expected. About 15% of colleagues really loved them and thought they were fantastic, probably 15% did not want to have anything to do with them, and the vast number in the middle were completely bewildered and confused. The thing they said most was that they were embarrassed to put up their hands to say, “What the heck is this all about?” We realised that we had a serious problem. If colleagues were not comfortable with the technology, how the heck would customers be comfortable with it?

That was the beginning of the digital eagles. The idea was that you took the 15% of people and they sat with colleagues. You did not tell them they had to learn how to do IT, but you sat with them, much as Helen described. I think we have ended up with the same conclusion. They showed colleagues how to be comfortable with IT, even the 15% who did not want anything to do with it. We now have 16,000 of those digital eagles in the UK and another 12,000 in Africa. That was the beginning of our enlightenment as to what digital skills are about. It is all about giving people confidence. That is the absolute foundation stone. Once people have that, you can start building particular groups of skills on top of it. That has been our story. Out of the digital eagles, we did code playground sessions in branches where we teach children code. For older customers we have tea and teach sessions. I think we have run over 5,000 of them now, not just in branches but in

community centres. As people become more confident, you can feel tangibly how they want to learn more skills. It has been an interesting journey for us, and it is one that we have ended up sharing with other organisations, such as the Department for Work and Pensions.

**Charlotte Holloway:** To come back to the point you made on automation, we can see the changing nature of the workforce. It is not just automation with robots doing jobs, which gets widely reported in the press; smaller tasks are made easier or frictionless, and it changes how employees at an individual level can get on with their jobs and play a wider role in different sorts of organisations. We have to acknowledge that the structure of the workforce will be changing as a result. We need to look seriously at those changes over the longer term. Society and Government have to shape what technology means for the way people live their lives, for their work and so on. Things like the computing curriculum and what is happening in schools to make sure the UK is at the forefront and is a net beneficiary of the new jobs and the changing jobs created as a result are really important. There are a number of studies that look at it in more granular detail, but there are tangible things that will make a difference to how the UK domestic workforce reaps the benefits of this. It is things like the computing curriculum and making sure apprenticeships have digital built in from the off. Those measures will mean that millions of people are equipped for the next wave of change that will happen in the next five to 10 years.

**Dr Helsper:** I want to follow up the point on the importance of the social or community aspect. We have been talking a lot about training individuals in skills, but from what my fellow panellists have said, one of the important things we know is that the social environment—this can be an organisational culture, a community centre, a sports club or something like that—is often what drives people to get engaged. If automation is embedded, so not something that is put upon the community, but something that becomes part of it in such a way that people do not feel pressurised—it is not foreign or intrusive, because they see others around them using it—then they can have open and free discussions in a safe place. That transition into quite a different type of working environment would help to focus not just on the individual and their skills, but on that kind of social environment.

**Q40 Matt Warman:** My question is directed mainly to Dr Helsper, but it is probably relevant to all of you. Could you talk a little about some of the research you have done that shows a correlation between engagement in society and socioeconomic conditions? Which comes first? Do you become disengaged from society now because you do not have the necessary digital skills, or is it the other way round?

**Dr Helsper:** That is a really difficult question. Since we do not have a lot of panel data on that, I had better not draw a firm conclusion. What we do know is that in this sense skills are an intermediary, so they help to avoid the broadening of gaps. Skills in this case, however you define them, are fundamental in translating use into tangible benefits. What those needs are and what people use the technology for is often determined by their socioeconomic situation. We also need to be a little careful in thinking that, say, we are going to give people with low levels of education a technology where the content to learn is there and then everything will be okay and they will educate themselves. There is a very strong correlation between the resources we have online and how we use technologies

once we get access to them and have the skills to use them. People tend to use the technologies for things they already feel comfortable with and for which they already have the resources. When people who do not have any friends—let’s call them social resources—get digital skills and technology, they are less likely to use that technology to meet people or establish social networks, because to establish social networks you need that basis. The same goes for people who have had bad experiences with education, or who have lower levels of education. When they go online, they often use it for all those other things and not necessarily for education.

Coming back to the discussion we had earlier, that is why it is important to define needs and think about the tangible outcomes people would need to improve their wellbeing and everyday life, maybe education in this case. Then, while trying to figure out how you can improve education, you embed digital within that, not making digital the focus. If you make digital the focus, they will probably use it for things they are comfortable with and already have. We see that for all kinds of things: belonging, social stuff, economic resources, even things like mental health and wellbeing. People who are vulnerable psychologically are a lot more likely to be vulnerable online. We have done work with children and parents, where one of the confusing but explainable findings is that when children with emotional problems get very engaged with technologies they increase their literacy or the skills we are talking about, but they are much more likely to run the risk of being bullied or groomed online than children who do not have emotional problems, so there is a strong interaction that we cannot forget.

**Q41 Matt Warman:** Am I right in thinking that the way we mitigate a lot of that is in the ways you talked about before? In some ways it is about making sure you get the right level of attentive teaching, if you want to call it that, rather than just giving people a tablet and saying, “You’ll like this.”

*Dr Helsper:* Exactly. We talk a lot about personalised services. Depending on your needs, what is the outcome? One of the things that often goes wrong in the transition from providing services offline to online in many sectors—for example, better service provision—is that we forget that one of the best technologies we have for providing personalised services is a human being. A human being will sit down and ask, “What is it that you need? Where do you come from?” They know how to get the information from the individual to figure out what they need. That often gets lost when we start providing services online.

**Q42 Matt Warman:** Mr Roberts, do you have anything to add from a digital eagles perspective? Does that chime with you?

*Steven Roberts:* It does chime with me, exactly. One of the things we found is that technology is nothing without people. You have to have that human touch to convey it. There will be particular parts of society that will just pick it up without that, but we are about making sure nobody is left behind, and humans are essential in that.



**Q43 Graham Stringer:** Both the previous panel and you, Mr Roberts, mentioned digital eagles. Can you tell us precisely what a digital eagle is? I gathered from the context what one was, but perhaps you would expand.

**Jim Dowd:** And do they get paid?

**Graham Stringer:** We will come to that.

**Steven Roberts:** When we were trying to figure out this problem, we thought that we would ask for some volunteers to start off to see what would happen. We asked for volunteers and chose 20 people originally out of 300 volunteers. Between May and December 2013 we figured out that we could have one of those 20 visit every single one of our branches. The idea was that they would go into the branch, sit down with everybody there and ask them, “Have you got any problems, first, with any of the Barclays technology—the mobile banking, Pingit or whatever—and do you have any other technology issues?” By the end of December they had visited all of our branches. The other thing we told them was, “While you are visiting the branch you will probably find somebody in your likeness.” We selected those 20 people on the basis of their behaviours, not whether they had a specific qualification in digital skills. Were they able to be a sensitive and engaging person when they sat next to, say, a much older colleague, often a more senior one, and explained the basics of how their mobile phone or iPad worked, for example?

We have never paid the digital eagles any more than an ordinary member of staff; whether they want to be a digital eagle is completely voluntary. We realised quite quickly that we needed to give them some sort of qualification, for their own sense of, “I’ve got something.” We looked around for a qualification, but there was nothing out there. There were lots of qualifications around specific IT packages, whether PowerPoint or whatever, but nothing in terms of digital savviness. That really reflects the nature of digital; it is changing so quickly.

We worked with City & Guilds and as many different organisations as we could find and created what we call the Barclays digital driving licence. Originally, it was just for colleagues. It is a gamified learning experience; it sits on your phone or iPad and you get points. When you have 6,000 points you get City & Guilds certification. We found it worked well for colleagues, especially males between 40 and 55. They tended to be the people who thought they knew everything but didn’t and they didn’t want to put their hand up. They did all of the learning themselves. It was so successful that we put it on to App Store and Google Play for free. It now has 34 modules from IBM, Cisco, Good, BT, Accenture, the BBC, Google, ourselves and all sorts of aspects of digital. About 80,000 people are now registered, of whom about 50,000 are Barclays employees. I think it is also on App Store in South Africa, India and UAE as well.

**Q44 Graham Stringer:** I am getting a better understanding now. These digital eagles were going round to your branches and effectively putting machines in to replace tellers. Is that what happened?

**Steven Roberts:** No, not at all.



**Q45 Graham Stringer:** They were not a threat to the jobs of the people they were advising.

*Steven Roberts:* No. Staff within the branches volunteered themselves to become digital eagles, so they were not people who were imposed. We were helping colleagues to gain confidence so that they could help customers with digital.

**Q46 Graham Stringer:** There are just as many tellers after as there were before.

*Steven Roberts:* The digital eagles had no impact on the number of tellers.

**Q47 Graham Stringer:** They did not help to introduce machines in place of tellers.

*Steven Roberts:* No.

**Q48 Graham Stringer:** But they did introduce more online services.

*Steven Roberts:* They helped customers to understand online services better and feel more comfortable and confident about them.

**Q49 Graham Stringer:** Was there much customer resistance?

*Steven Roberts:* The response from customers has been very positive. If somebody does not want to be engaged with digital they do not have to be. We do not impose a digital eagle on them at all. In fact, demand went the other way; customers asked to have additional digital skills explained to them, which are the tea and teach events we run.

**Q50 Graham Stringer:** They help individual customers and members of staff. Do they also go out into communities and help them?

*Steven Roberts:* Yes. I should have explained what the tea and teach events are. One or two digital eagles will go out to a community centre and help people in the community—not just Barclays customers, but anybody in the community—on digital skills, in a very similar way to Helen's organisation. Those will not be about Barclays products and services; it will be online shopping or how to Skype relatives.

**Q51 Graham Stringer:** How do you measure the success of the digital eagles?

*Steven Roberts:* In a number of ways. One is the overall customer and non-customer appreciation of Barclays as a whole; others are in terms of the confidence customers have in taking up our digital products and services. We have a mobile banking service, which we did not have three years ago, and we now have 5 million active users of it. I think the digital eagles contributed to that. Those are very satisfied users. There are the responses we get from organisations and communities where we help people. We also run digital eagles code playground sessions, where we run coding for children in branches for free, and take-up of those has been excellent. As we offer more digital support services, the



feedback is very good. They are free and are open not just to Barclays' customers but also to non-customers.

**Q52 Carol Monaghan:** There is a famous quote—maybe not that famous, since I have just tried and failed to find it online—about preparing young people for jobs that we do not even know exist yet. You probably know it better. I am a teacher by profession. One of the things we always tried to do in the classroom in every subject was introduce technology. Technology can mean an awful lot of different things. Charlotte Holloway, what is techUK doing at the moment to nurture digital talent?

**Charlotte Holloway:** That is a big question. Whether it is the new jobs that are being created or the changing nature of existing jobs, there are lots of different parts to that, including basic digital skills, the Go ON UK definition and what Helen talked about. Jobs across the wider economy increasingly need digital skills of a more sophisticated nature, and then there are high-end very digital-intensive roles: coding, big data, cyber-security and software development. Those are the roles. They are at the technical end, which is probably where techUK's membership is most concerned and focused; 93% of our members have said those types of roles are an issue for them, and they expect the shortages in those roles to grow more and more.

What is the tech industry doing? It is doing quite a lot. There is a lot of interest in the computing curriculum, and not only the fact that it has gone into schools, but work with continuing professional development to help teachers get the skills they need to teach what is a new curriculum. As we mention in our submission, there are some quite high statistics showing that teachers are concerned that they are not well equipped to deliver on that curriculum. We think that curriculum will help to deliver the jobs for the future. It was a welcome move by the 2010 Government.

Industry is playing a role in helping to provide online resources teachers can go to; a number of our members do that. Those are very specific things. Our members support code clubs. We now have thousands of those across the country, not just in cities but increasingly in rural areas. They are not just in London and the south-east but right across the country. Not only are they financially supporting those initiatives; they are sending industry professionals in after school to help younger kids aged eight to 10 find out what happens with coding and computing and making it fun and accessible. Individuals from industry go in and help.

The Tech Partnership is a fantastic industry-Government skills delivery mechanism. Margaret can speak to that. A lot of our members are hugely supportive of the work of The Tech Partnership. They go in and work on apprenticeships and delivery programmes. There is a good deal going on, but there are a lot of different things and that is where Government have a role. Industry will be working on different initiatives in different areas. How do we know what the sum of those parts looks like? That is where there is a role for Government in understanding that and seeing where the gaps are. It is something we called for in our submission in a paper we launched last year.





**Q53 Carol Monaghan:** A range of different things is taking place, but are young people choosing to study tech-based subjects at universities? Is there an increase? Are courses already available that talented youngsters can participate in?

*Charlotte Holloway:* The UK is in a good place, but it could do more. We hear a lot from companies in the discussion about transferable skills. It is not just about hard tech and whether you know the really technical stuff and the more advanced element of CSS, Java coding or whatever; it is about what it looks like right across the business. If you are in this function, do you understand what different parts of the company do? For industry across the board, not just the tech industry, transferable skills are an important element.

Are younger people coming through? We are seeing increased take-up of computing A-level and GCSE; we see increased take-up by women. It is still not enough, but the number is moving broadly in the right direction. With regard to degrees and the university system, we find that the most successful outcomes for employment and graduates' trajectories, where they do tech-intensive roles, are those where universities are better engaged with industry and have good partnerships and placements, and are thinking about that from the off. We see that in the correlation with what a graduate's track record looks like for their industry involvement and engagement in the course of their time at university, which is really important. This is from primary level right through to graduate level and beyond, making sure that people, not just young people but older people, are brought on to that journey as part of their learning and in their businesses.

**Q54 Carol Monaghan:** Can I ask again about the school situation and support specifically in deprived areas and rural areas? Obviously, these are two areas that pose a greater challenge whenever we are trying to deliver tech-type training with specialists going in—rural areas in particular, but there are issues with deprived areas as well.

*Charlotte Holloway:* I cannot speak extensively to the rural aspects. With the roll-out of superfast broadband across the UK we know that people will have access to new types of online courses and learning that may require a higher bandwidth that they could not access previously. That is really good news. We know that code clubs and other initiatives are increasingly going outside cities to smaller towns and areas, but with the potential for online learning do you need a physical base? Not all the time. It is about having a national framework that makes it as straightforward and frictionless as possible for an industry that wants to engage in a certain programme at a certain level and in a certain area.

I talk to SMEs up and down the country. Larger companies are getting increasingly on board with this. SMEs are up for the challenge as well. Growing tech companies know where they will get their talent from in the future and they have a stake in that. I was speaking to someone in an SME in the west midlands yesterday who said, "I want to get some 16 to 18-year-olds in my company; I want to help them and get them in early and make them learn how our business works and how to navigate from this over here to this over there." It is quite confusing for an SME to know where to get help to develop its local talent. That is where local enterprise partnerships have a role to play, and some local clusters are growing as well.



**Q55 Carol Monaghan:** That would include deprived areas. We heard earlier that those children will not necessarily have access to broadband when they go home, so are we still managing to capture the talent in these children?

**Steven Roberts:** We have a couple of insights. One is the life skills programme for kids. It is not specifically around digital but it includes digital. It is about how they are better equipped to get a job when they leave school. About 1.8 million children have been through life skills in one way, so there is some insight from that. The other insight is that we are one of the lead partners for the BBC micro:bit project. In February—fingers crossed—the micro:bit should start the roll-out to every 11-year-old in the country, all 800,000 of them, free. It is emulating what the BBC did in the 1980s when Britain was at the forefront of personal computing in the whole world, when the BBC micro went out to all schools. This is an opportunity to give every child, regardless of their background, a personal computer, which is what this little thing is. If you have seen it, it looks a bit like a Raspberry Pi—if you have heard about that. It is a huge opportunity and one we want to embrace, which is why we are involved in it by helping with the code playgrounds.

The challenge with both of the things we have seen is whether the teachers are in a similar position to our colleagues—that technology has raced on so much that there will be groups of teachers saying, “Wow! This is bewildering, and I’m embarrassed to put my hand up to say that maybe the children know more about this stuff than me.” That is some of the feedback we have in our involvement in both of those initiatives on the technology side. I do not know whether that is helpful.

**Dr Helsper:** One of the most shocking findings for us in the research projects we have done over the last few years, when we started to make a distinction between different types of skills and the use of those skills in digital environments, was that one of the areas in which the inequalities are strongly increasing and stark is in skills related to content creation. That can go from a very basic level—whether you know how to upload a document and post something on a website—to the more high-tech skills.

This is one of the areas where we still see gender differences, and where the effect of the education and employment of the family—young people as well as adults—is strongest. People who have multiple levels of disadvantage are less likely to have all types of skills, but where it is particularly pronounced, and where we see an increase in the gap, is in the creation of content. That is a bit of a risk with the more general programmes, because the people who tend to go to code clubs and things like that tend to come from those groups.

An important point to make is that, while we are thinking a lot about consumption and use of content and the navigation of information, where we can see solutions for developing programmes, the inequalities are in the creation and shaping of the digital space we are living in right now. That is problematic when we think that the people who will be using those services and moving in that world will be very different from the people who are shaping and creating the content and services.

**Q56 Chris Green:** Many businesses will say that their employees are their best asset, and companies should be training their people and making sure they are digitally aware and have the right training to use resources as appropriate. How aware are you of businesses, rather

than training their own people, just recruiting new staff with appropriate digital skills, or perhaps recruiting younger staff they expect to be more digitally aware?

**Steven Roberts:** There is a whole spectrum. The digitally savvy companies that techUK would have more contact with have to go out and be very active in recruiting people with very specific digital skills. The risky end we see is the vast majority of companies—the forgotten middle—that look just like the personal customers. They will be SMEs run by people, perhaps my age, who might not even realise that there is an imperative to do something and to recruit those people. The biggest challenge lies in helping those companies understand that digital imperative.

**Q57 Chris Green:** The previous panel highlighted the fact that people had a fear of technology and an expectation that certain types of people can access technology and other types can't. If that perception is there in businesses, their recruitment policy—it may not be overt—will have a certain bias towards expectations. I think you highlighted the expectation between men and women as to digital skills.

**Dr Helsper:** This is important. We come back to the discussion we had earlier as to what the job is about. Is the job about using technologies? A lot of the work I do is with parents. They say, “Oh, but my child is online so I can't be a parent any more because I'm not comfortable online.” What is parenting about? It is about making sure your child is able to take up all the opportunities, participate in society and avoid risks and harm. In an organisation we are trying to achieve a lot of different outcomes. For most organisations and businesses, use of technology is not the outcome.

There are definitely situations in which you need a very tech-savvy person and you would do a new hire, but I would conclude from our research that focusing on the knowledge and expertise existing employees already have in doing the specific types of jobs necessary to keep the organisation running, and seeing what types of digital skills and resources they might need to be able to do that better and training them in that, is more useful, because then you give them a compliment and a sense of appreciation. They are there because they have certain skills and resources; they have certain knowledge that somebody who comes in with purely technical knowledge—a younger person, for example—will not have. Both encouragement and the respect for knowledge that is already there, seeing how digital can help to increase that and make it part of the new more digital organisation, is important, as well as figuring out that for some roles where you need specific technical knowledge maybe you do new hires.

**Charlotte Holloway:** Steven put it quite well. I do not think the thrust of the question applies so much to techUK's members. We spoke to our members about this inquiry. When they think about the digital skills gap, they are thinking about developers, cybersecurity specialists and the highly skilled roles that require this stuff. There is a reason why the average salary in the tech sector is double the average in the UK; these are real shortage jobs. When you talk to tech companies about the gap, you hear that it is about those higher roles. If you have a good developer who understands your business, you hold on to them like gold dust. You need to be thinking about the pipeline and making sure that, if you cannot get the talent domestically, those companies are able to get talent in internationally, so that while the talent is coming through, via the computing curriculum or

whatever it may be, those jobs are still here in the UK. That is what the companies I talk to think about when they consider the digital skills gap.

**Q58 Chris Green:** Often, with digital skills some people are just more inclined; they are really interested and fascinated. If you get someone who is really fascinated, that is the person you need. You cannot just train someone up to take on those roles; you have to get particular characteristics.

**Steven Roberts:** It is important to recognise that digital skills are on a whole spectrum, from somebody who is a specialist coder to someone at the softer end who just has a general openness and awareness of the potential of digital, which might be in hardware. It might be 3D printing; it might be nothing to do with coding, but it is still a digital skill and a businessman can appreciate and understand the potential of what digital offers. It is not just about expert coders; the potential for increasing the digital capability of the whole population is profound.

**Charlotte Holloway:** I would completely echo that. In our submission, and also in The Tech Partnership's submission, we say that getting that delineation and those definitions of the different parts of digital skills is absolutely key to cracking it.

**Q59 Chris Green:** There are a number of different initiatives to support people in digital skills. Are they effective? Do they work? We were talking about code clubs earlier. Are they as good as they ought to be? You mentioned that many teachers in schools are not comfortable with these digitally and they need more help and support. Are these initiatives working as well as they ought?

**Steven Roberts:** You have to be holistic. It is not just about giving children or elderly people digital skills; it is the whole population that you have to move forward. In any revolution there is an awful lot of activity that can appear unco-ordinated. One of the potential things the Government can help with is bringing together some of the activities that are all very good on their own but can be co-ordinated better.

**Dr Helsper:** I have been involved in the work that Go ON UK and the digital inclusion unit have been doing in developing a framework for the evaluation of impact and the effectiveness of different interventions. That is really important. The title of the toolkit that is out there for ordinary citizens to see whether what they are doing is effective is "From volume to value". One of the problems is that we often measure in volume. How many people have participated in the coding workshop? How many teachers use the internet or a particular technology in their teaching? That does not tell us much about the effectiveness or success of those types of intervention. What we want to know is that they get a better job. Are they able to get better healthcare? There is still work to be done when we talk about evaluation to see what works for whom under which circumstances. That toolkit was developed with GDS at the time—it has now moved to DCMS—and Go ON UK. The multi-stakeholder collaboration to develop a toolkit to design and evaluate programmes that are effective, depending on the outcomes you are trying to reach, is really important work that is going on right now. In a year's time we will be able to say a lot more about how effective different types of intervention are in getting different types of people engaged with technology in a way that is beneficial.

**Q60 Chris Green:** If you were telling individuals or businesses what the financial benefits are, are there any particular areas you would highlight?

*Charlotte Holloway:* Of investing in digital skills?

**Chris Green:** Yes.

*Charlotte Holloway:* It sounds a bit trite, but what is the cost of not doing it? The companies we represent at techUK know very well that the talent pipeline and having people to fill the roles is fundamental to their future. There is the apprenticeship levy and making sure that we shape delivery and implementation so it really works for future jobs in innovative companies operating in the 21st century. That is really important, as is making sure, as Margaret said in the previous panel, that it is reflective of what industry needs and that jobs will ultimately happen after those apprenticeships. We see increasing amounts of involvement in things like code club, Apps for Good and other areas, and in making sure we invest in people in organisations. Women are a great example. A lot of people leave the workforce after having children, or for a career break or whatever it may be. Increasingly, particularly tech companies in the FTSE are looking at how to retain that talent and keep it in the organisation, not only because there is a shortage but because they need those people for the company going forward.

*Dr Helsper:* Was it a question about the digital skills element or digital in general? It is an important separation.

**Q61 Chris Green:** It is about digital skills for an individual business; making sure people have those skills must make a difference for the company financially.

*Dr Helsper:* For a lot of people it is clear what the benefit is, or that the need is to go digital. As was mentioned in the previous panel, if you are not digital, sadly it is likely that you will not be noticed or exist, or you will not have the right kind of connections. That argument for many companies and organisations is relatively clear. You have to. The economic benefit of digital skills is that it makes no sense to design those services if people then cannot use them properly to get what they want from your organisation. If that experience is extremely frustrating, you will turn customers or clients away, because they will be getting lower quality services. For NGOs, it might mean an increase in the disadvantage or inequality that we talked about earlier. The economic argument is there. If you develop those services you will see efficiency and take-up only if you are also involved in making sure that people have the skills to use them and that you design technologies tailored to the skills of the people who are your customer base.

**Q62 Chris Green:** I suppose there is a clear indication with the digital eagles that Barclays as a whole sees the benefits and increasingly works with customers to ensure they understand the digital side and can engage better as well.

*Steven Roberts:* On the personal side, Age UK have produced some figures about older people and how much financial benefit they get from being online. I think it equates to several hundred pounds a year in terms of utilities and things like that. We have been

running some pilots with a special group of digital eagles we call business digital eagles. We trained them with extra skills to support the SME sector. We have been running business digital clubs where we have been helping specific companies with their digital marketing plans and how to engage by buying digital advertising and marketing themselves digitally. The impact of that engagement and help on the company's turnover is quite dramatic and noticeable, in a positive rather than a negative sense. The other area where we have been doing work is helping customers understand the risks around cyber-security, which we see as a big challenge moving forward. We expect to see both of those areas expand on the basis of the trials we have been running.

An aspect we are increasingly interested in and want to support businesses with is where we believe the next phase of the digital revolution is going, which is around the physical form. It is beyond software and coding; it is around advanced manufacturing, like 3D printing, laser cutting and new platforms such as the Raspberry Pi Zero. The opportunities for how quickly a company can prototype things through using those techniques change completely. Manufacturing will have fundamental and profound changes that we want to be at the forefront of supporting. I do not want the Committee to think that digital is just about coding aspects; not as far as we are concerned anyway.

**Q63 Victoria Borwick:** Much of this has been covered, so I will keep it short in view of the time. We talked previously about SMEs, but what do you think about larger companies investing proportionally in their own digital champions at senior management level? Do you think that is being taken seriously enough? You have obviously taken the lead at Barclays, but do you have any view about other larger businesses?

**Steven Roberts:** What has been interesting for us over the last 12 months is the number of large companies and organisations that have come to us to ask about what we have done. In the last 12 months we have been working with the Department for Work and Pensions. They came to us and said, "We've seen what you've done with the digital eagles. We need to make our colleagues more tech-savvy. Can you help us?" They are rolling out their equivalent to the digital eagles programme. They recruited 20 digital eagles to start, which we buddied with 20 inside. They have started running tea and teach programmes in jobcentres. They are not alone; other corporates have said, "Can we talk to you about what has happened?" People are realising that you have to bring your people along with you; it is not enough just to chuck them new computers and tablets.

**Q64 Victoria Borwick:** What about apprenticeships? What role can they play in the transition to a digitally skilled workforce?

**Steven Roberts:** We have an apprenticeship programme in the bank that, across the group as a whole, has taken on 2,000 new apprentices, but we have a very specific segment within that for IT. Since 2010, I think we have taken on about 400-plus apprentices, and every single one of them has ended up moving into full-time employment, so we see it as a really important area.

**Q65 Victoria Borwick:** Does anybody else have a view on apprenticeships?

**Charlotte Holloway:** For the apprenticeship levy, our members who fall in scope are those with a payroll of over £3 million. In the tech sector, with its quite high average salaries, that is about 70 employees. They are looking closely at what implementation of the levy means in practice. How will it affect how they recruit talent in the future? The nature of tech work is such that, although there are apprenticeship schemes, I guess they may work slightly differently from the way they do in other sectors. Companies such as Accenture, Samsung and others are investing in the apprenticeship model that they have in their companies. For a lot of companies what the levy means for them in practice will be new; it will mean a slightly different way of operating an HR department, and that will take some transition.

It is important that the new Institute for Apprenticeships thinks about what it means for sectors that have recruited through other routes. If you have a cyber-security shortage, how you get an apprentice to tackle that issue is quite a big challenge. More broadly, the institute needs to look at how digital is embedded in roles right across different sectors of the digital economy. Our members are looking at level 4, the higher apprenticeships, and maybe we need to be thinking about levels 1 to 3 in other parts of the economy as well.

**Dr Helsper:** I would like to combine the two points you made. Both point to something that is really important, which is creating a culture within any organisation where digital is not something foreign, strange and alien that we should be afraid of, but part of the whole organisation, from the digital champions up to senior level. It is important that it is not just the tech part of the company that is trying to promote tech. It is the same with apprenticeships. The risk of creating tech-specific apprenticeships is that it becomes something that “those people” do, instead of saying, “We have an apprenticeship scheme, and as part of all these different types of apprenticeship there is a digital element that can be promoted by your organisation.” There might be incentives to include digital in those different aspects, because creating a cultural and social environment in which digital is part of what we do, and we look forward to growing with it as a company, is really important. From the digital champions and senior level to the new people coming in, giving the message that digital is part of what we do is really important.

**Q66 Victoria Borwick:** What recommendations do you think we should be putting forward to the Government to consider? What final words of wisdom would you like to give us?

**Dr Helsper:** I am not going to give targets. People in the previous session have already done that. The most important thing in a Government digital strategy is making clear that it is something that concerns everybody, and that whatever an organisation does as part of a business plan or strategy it should be thinking about what digital can do for which part of its organisation and with whom, and what it is trying to achieve from that. Setting a framework where digital is embedded in achieving any kind of outcome in what an organisation or company is doing is a key role. As I said before, lead by example: start with different Government Departments doing that and specifying what it is in all the things they do that they are trying to achieve with digital, and what specific skills and resources are needed to achieve that.

**Steven Roberts:** I have a few things. The first is that we have a huge opportunity at the moment to make us the most digitally savvy country in the world. We should grab that and not lose it. I would set the target of being the most digitally savvy country in the world,



and we should get on and do that. Exactly as you said, it is for everyone; it is not just about the cool guys, it is about the whole population. That is how we achieve it.

The other thing is please can the Government help to convene and co-ordinate all the digital activity that is going on? A way to help do that is to highlight some of the best practices. There is some lovely stuff. I would say that the digital eagles is lovely stuff, but there is a lot of other stuff, for example what Helen and both my colleagues on the panel are doing. The last thing is that this is not a one-off exercise. Keep coming back, because this is a revolution. All sorts of things are happening out there.

**Q67 Victoria Borwick:** It is not one battle; it is a war.

**Charlotte Holloway:** Steven has made the points about ambition and continual iteration really well. In our submission, we drew upon a publication that techUK launched last year on behalf of the tech industry. It has an 11-point plan—11 recommendations that we think need to happen. I will not go through all of them, but one worth bearing in mind is that there are a lot of initiatives—code clubs and new national colleges—but I am not sure that we yet understand how that is going collectively to move the dial by 2020. One thing we called upon in our paper last year was for the Digital Economy Unit, together with the Department for Education and other Departments, to think about what these initiatives look like in aggregate. Where are we going to be by 2020? If we think 1 million new jobs will be created, what does the supply and demand match look like?

**Q68 Victoria Borwick:** That is the point made earlier about effect and value.

**Charlotte Holloway:** Absolutely. We think there is a concrete piece of work and analysis to be done there.

Secondly, the computer curriculum is a massive opportunity. An entire generation of children from key stages 1 to 4 will be having new types of learning. I completely agree that it is not just about coding, but it helps to introduce new sorts of learning and problem solving into schools in a way that has not happened before. That is a positive move, but if we do not get the delivery right, and the implementation and evaluation of that delivery, we could have a big missed opportunity. Let's capitalise on that positive policy move by the Government by making sure delivery on the ground happens. We were told pre-spending review that there would be £3.5 million to assist in getting teachers up to speed with that. We are still to hear where that funding will be, but it is a concrete thing that will make a tangible difference by 2020 and beyond.

**Chair:** We are expecting a vote any moment. However, I would like to thank you for what has been a very expert session. *[Interruption.]* It is as though I have some kind of anticipatory power—I see it on the monitor.

Thank you all for what has been really interesting and inspiring evidence. The very clear message we have received today is that the digital skills gap is an urgent area of policy, but also a very exciting one that offers huge opportunities to the UK, not just in economic but also social terms. I liked the phrase we heard from Dr Helsper that it is 70% of your job perhaps, but 100% of your life. We should think about that as we move forward. Another





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message is that there are a lot of initiatives out there, but perhaps they are not as co-ordinated as they should be, and we will be considering that as we go forward. I now end this session with thanks to all of you. We may come back to you with a few questions. In the meantime, that ends our first session.