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Witnesses: Nick Boles MP and Mr Ed Vaizey MP

USE OF THE TRANSCRIPT

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Members present

Baroness Morgan of Huyton (Chairman)
 Lord Aberdare
 Lord Haskel
 Lord Holmes of Richmond
 Lord Janvrin
 Lord Kirkwood of Kirkhope
 Lord Lucas
 Lord Macdonald of Tradeston
 Baroness O’Cathain

Examination of Witnesses

Nick Boles MP, Minister of State for Skills and Equalities, Department for Business, Innovation & Skills and Department for Education, and **Mr Ed Vaizey MP**, Minister of State for Culture and the Digital Economy, Department for Business, Innovation & Skills and Department for Culture, Media & Sport

The Chairman: Thank you very much indeed for coming this morning. As you know, we are nearing the end of our inquiry. There is a bit of housekeeping first. You have a list of interests that have been declared by the Committee Members. They were declared orally at previous sessions and they can be found in the transcripts. This is a formal evidence-taking session of the Committee and a full note will be taken. It will be put on the public record in printed form and on the parliamentary website. You will be sent a copy of the transcript and you can revise any minor errors. This session is on the record. It is being webcast live and will be subsequently accessible via the parliamentary website. You are very welcome to submit written supplementary evidence; indeed we may at some point specifically ask for something if we want further evidence. We are all advised to speak up clearly. Actually I think the acoustics are not bad in here but it is sensible to try to do so.

Thank you very much indeed for coming. I think the best thing to do is if I start by asking you to introduce yourselves and your areas of ministerial responsibility and to make any opening remarks you wish to make. We have obviously had a written submission already.

Nick Boles MP: Thank you very much. Thanks for inviting me along. I am Nick Boles. I am the Minister for Skills and so that obviously encompasses digital skills, but I think it is important to point out that Ed Vaizey is the panjandrum of all things digital in the Government. So it is Ed who will lead on most of this but I am very happy to answer any specific questions you have about skills training, apprenticeships and the like.

Mr Ed Vaizey MP: My name is Ed Vaizey. I am the Minister of State for Culture and the Digital Economy and I am here very much to support Nick Boles in his role as Minister for Skills. I may not even be here; I may be a hologram. It is a bit like “The Two Ronnies”, “It is good night from me and it is good night from him”.

Q250 The Chairman: Thank you very much indeed. I will start with a general kick-off question. We have had a lot of evidence from a lot of people in recent weeks. We have

heard about a lot of initiatives, some very good initiatives that are happening all over the place. We have also heard a lot about the importance of creating frameworks and the right conditions for the digital economy to flourish. That is all fine and we have been happy to hear about that. The question we want to pose particularly to you today is—and we have heard that Mr Vaizey is the key figure—to what extent do you think you need one leading Minister to pull together the work across Government rather than it being split in various places? We have been particularly interested to hear how it is done in some other countries.

Mr Ed Vaizey MP: I think that potentially you do. I am happy to pitch for that job. I pitched for the job I currently have because I felt very strongly that there needed to be some more joining-up of digital policy. I wanted to get back to being a joint Minister with BIS, which I had been in 2010, and for reasons that were fairly public a lot of my BIS responsibilities moved to DCMS. I think that being a joint Minister is very important in general in government. I am sure you know, Lady Morgan, that one of the biggest difficulties Government has is departments that work in silos, and trying to get something done across two departments is often very difficult indeed. Being back in BIS makes a big difference. It makes a difference in a very prosaic fashion in the sense that you get to see a lot more submissions, submissions that might go to Nick or to Matt Hancock, the Business Minister, and so on. You just know much more about what is going on in another department that is critical to what we are trying to deliver for the digital agenda. That is point number one.

Point number two is that I do think we are getting better, not just by me being a joint Minister but also by the establishment of the Digital Taskforce, which is chaired by Francis Maude, with Jo Swinson from BIS as a vice-chairman alongside me. It is now bringing together three or four different elements of the digital agenda. Infrastructure is one of them, and I do not know how much this Committee will concentrate on that but we have already brought together more than a dozen different digital infrastructure projects in which the Government have an interest. That is not only delivering savings but making sure that we have a much bigger impact for the money we invest. It is bringing together skills—I think Nick is a member of the committee or turns up to the committee when it is relevant—and issues such as investment in digital technology and various other random issues, if I can put it that way, that are very central to the digital agenda: the Internet of Things, investment in 5G and so on. That is point number two, and that is supported by the Digital Economy Unit that sits across BIS and DCMS.

I think we have made a lot of progress, but in terms of the Whitehall chess pieces you can play, for me, a very entertaining parlour game as to what other issues might be brought to bear. For example, I regard data protection as a digital issue; IP is a digital issue. I worked closely with her predecessor but I work very closely with Baroness Neville-Rolfe on IP issues. Those are two key issues that should be seen as sitting within the digital policy framework.

The Chairman: If I can push you on that a little, you have just described a very pivotal role for yourself across BIS and DCMS and then you described Francis Maude's taskforce, and that is just two. Where would you say the absolute locus is at the moment for digital in government, or where should it be or how should it evolve?

Mr Ed Vaizey MP: Nick was right in describing me as the digital panjandrum. I think that it sits with me and that the thinking after the election—I am not talking about me personally—should be about that role and what it encompasses. Essentially, the bringing together of this position of BIS and DCMS has helped in the sense that it has formalised my role with things

such as Tech City, the Internet of Things, 5G, as I mentioned earlier, and cybersecurity. It has brought many more things that one would regard as digital at their core into my policy responsibilities, but I do think it is important to work with grown-ups. The extraordinary work that Francis Maude has done on the Government Digital Service and the role that the Cabinet Office can play in engaging with other Whitehall departments is very important. It is not perhaps as neat as you would like it to be but it is a lot neater than it was six months ago.

Nick Boles MP: Can I add something? As a reflection, not really anything to do with my job but just as an observer from the outside before 2010 and from the inside of Government, one can overestimate the value of having a Cabinet Minister who has supposedly lead responsibility for an issue unless that is the only issue that he or she is going to have responsibility for. It is not credible in a Cabinet of the size that we customarily have that one is going to have a Cabinet Minister just for things digital. There will always be a Cabinet Minister who has a range of responsibilities, and you often find that while there is a nominal, “Okay, they are at the Cabinet table”, let us be honest, how many decisions are made at Cabinet? Not that many. You will find that you have someone who has a huge range of responsibilities.

The reality of Government is that while institutional architecture and formal positions clearly are important, ultimately it is a human endeavour. Everybody in this Government knows that digital is Ed and Ed is digital. It is just the reality. It has been important that there has been some greater formalisation of that with Ed now having a perch in BIS as well, but ultimately the reality is that that is what everybody knows and so if any of us has an issue we know who to call. I think that that is what matters really. Of course I would love to see Ed in the Cabinet but I do not think that it being a Cabinet position would change things.

The Chairman: Would you say that DWP know it is Ed, in terms of workforce planning and the future?

Nick Boles MP: I do. Certainly any Minister would. It may be a reasonable question as to whether an official beavering away on a particular issue does, but I think any Minister will know.

Q251 Lord Janvrin: Could I move from the national to the regional and local and ask you what the national Government’s role is in trying to promote some of these activities at the regional and local level? We have heard about clusters, tech cities, and so on and that a lot of these things are going to happen at a very local level, and just to ensure that you can both answer the question, both in skills initiatives at the local and regional level as well as general policy. The link between what is going on in Whitehall and the regions seems to me to be crucial in this area.

Mr Ed Vaizey MP: Yes, I agree with you, Lord Janvrin. I think it is very important indeed. Again, without wishing to disconcert the Chairman too much, there is another link in terms of my role across BIS and DCMS with Greg Clark, the Minister for Cities. As a result of taking on the BIS responsibilities, I now co-chair with him the Smart Cities Forum, which brings together stakeholders interested in the use of technology to create smart cities. I tend to talk about talking lamp-posts but I was admonished. It is actually intelligent lamp-posts that can monitor air quality, dim or light up depending on who is walking past, monitor noise levels if there is anything disconcerting happening, all this kind of thing. There is obviously

much more to it than that, such as traffic monitoring and so on. That is a good link where we are working with the Future Cities Catapult that sits within BIS to work together to support cities in this very important issue.

Greg is the lead Minister on the Growth Deal, so he works with cities and regions in putting together growth deals. That is an issue where to a certain extent it depends partly on my advocacy to work with cities to encourage them or support them, where they see the opportunity, to promote the creative industries and digital industries as part of their growth. There are several cities that make a big deal of that; Birmingham springs to mind.

The third element to this is my responsibility with Tech City. Tech City, particularly since Joanna Shields took over the chairmanship, has very consciously emphasised its work in clusters. It has 13 clusters that work with Tech City where they share experience, and again I want to stress that is not a London-centric dynamic where London is explaining to 12 other clusters just how it is done. It is a meeting of equals where people are exchanging views. I was very pleased when the Deputy Prime Minister announced the creation of Tech City North. In a sense that is partly a point of emphasis to emphasise that there is more to Tech City than just the London cluster. It means money, because there is a small amount of money to support networks developing in the north. That is a third element where we have a clear regional strategy. I would sum it up as the smart cities working with the LEPs and the Tech City clusters.

Lord Janvrin: Can I come back before Mr Boles comes in? Do you see this as a top-down process or are you able to see a cluster emerging as sometimes they do without it necessarily being fed from the centre? Have you done a lot of research on why clusters form and what you need to get a cluster off the ground? That is something that other witnesses have talked about.

Mr Ed Vaizey MP: I think it is much more of a bottom-up exercise. Tech City was not imposed on east London. It emerged as a way of saying here was a cluster and asking what Government could do to work with that cluster, almost as an R&D centre. Out of Tech City have come things like the entrepreneur visa, for example: people being able to have a direct relationship with Government and explain some of the hurdles they face. I do not think we were picking clusters as part of that cluster alliance; they picked themselves. The same was true with the City Deals. If Greg Clark was here he would tell you that the City Deal is on the table from central government but what you get out of the City Deal comes from those who come to the table to ask for funding or support in certain areas.

There has been cluster research. I am afraid I do not have details in front of me. NESTA, for example, has done a very good piece of work, I think 18 months or two years ago, on what fosters clusters. Clearly it is critical mass but it can be things like rents, the skills-based universities, further education and existing companies with strong research arms, Cambridge being the most obvious and high profile example of a science-led cluster.

Nick Boles MP: In the skills area you have—to use that ghastly phrase—a matrix where one axis is industries and another axis is localities. A key part of our reform, which I think is working and is welcomed, is about putting employers in charge of developing the standards, whether it is developing standards for apprenticeships or developing other training programmes. That is what the Digital Partnership is about and all the Trailblazers. We then have six standards that have been approved. Of course, those standards will be offered

anywhere in the country where a college or a training provider working with an employer wants to create and offer an apprenticeship.

But there is a local axis, and perhaps the best example of it is the recent deal, announced by the Chancellor, with Greater Manchester, where you saw that they had a very strong desire to have a more active role, as Boris does, in working out what they need locally, where they should be putting their money and which institution should be focusing on which specialisms. I think that is right and proper. The City Deals were one part of that process. If there is a more embedded, long-term way in which we can put local areas with proper electoral accountability in charge of the skills provision in their areas, that is very welcome too, but it should not cut across the idea of putting employers in charge of the standards. It is for them to work out what investments to make locally to unlock those industries.

Q252 Lord Lucas: There is a very large number of active and intelligent participants all round the country in this sort of area. I would suggest that what they need from Government is to know what organisation they should be committing their relationships to and that that organisation will last over time and be well looked after and well funded so that they can invest their efforts in building that relationship and know that it will return something. Who do you see as those government actors? Is it local enterprise partnerships or the National Careers Service? Particularly if it is local enterprise partnerships, what do you do if one of them is not performing well locally? How do you bring it up to scratch?

Nick Boles MP: Do you mean specifically in relation to skills or more broadly?

Lord Lucas: Skills particularly, yes, but—

Nick Boles MP: First, there is the careers advice and guidance. I know it is an area that interests you greatly and it is an area in which there is a lot of digital activity and digital initiatives. It is the National Careers Service that leads in this, but we, as the Government, have recognised that while there is a plethora of different organisations, social enterprises and private organisations out there offering services, many of them online but some of them also offline, there is very little light-touch co-ordination and very little sense that there is one place to go where you can find out exactly who is best at doing the thing that you want in the area you are in. That is something that schools need because they have a lot else on their plates and they are not necessarily expert in this area. While I do not want to jump any guns, something that we are quite focused on is how you fill that gap. Without creating bureaucracies or anything like that, how do you nevertheless fill that gap?

At the moment the National Careers Service is the prime locus, but I think it may be that over time there will be somebody else who takes on that task.

Lord Lucas: Locally is it LEPs that—

Nick Boles MP: Locally, that is a very good question. It is true in all of life, is it not, that you have this permanent tension that if you have local responsibility some people are good at it and some people are rubbish at it, and if you have central responsibility they are very far away and they are probably pretty mediocre, neither good nor rubbish. It is difficult. Where we have perhaps struck the right balance is that we are giving responsibility to localities that show and evidence a willingness and an understanding of what they need to do to raise their game and take the responsibilities. I think that City Deals and this much more fundamental deal with Manchester will show the way.

If you are in an area where the local enterprise partnership is focused on other stuff—and that is not totally unreasonable; their prime needs may be transport infrastructure or whatever it is—it is probably right that you are not pointed to go to the local enterprise partnership because they are not currently engaged in sponsoring digital activity. The broadband initiative, as you know, has not relied on local enterprise partnerships. That is something with contracts that have been let through local authorities in every area because you need to have a certain level of consistency about the programme that perhaps local enterprise partnerships at the moment would not provide.

The Chairman: Just going back to the LEPs for the minute, we have had pretty clear evidence that some local hubs and local LEPs are working brilliantly and doing what you would hope they would do and that others frankly are not. There seems to us to be something of a gap where Tech City or whoever goes in and identifies that there is really good potential here for X industry to move to a more digital stage of development—it could be a great opportunity for this region or sub-region—and the LEP is not going to seize it or put the right partners round the table. They do not have great higher education links. What is the role for Government to make that happen, or are you saying that there is no role and that it can happen only if there is the right energy there for it to move forward?

Nick Boles MP: I think that probably has a whole lot of relevance to other areas that Ed can talk about. Just on skills, ultimately if an LEP is able and willing to take a responsibility, that is brilliant, but I do not want a hopeless or perhaps otherwise focused LEP to be a barrier to this happening. Ultimately if there are employers who are willing to invest and there are colleges and other training providers who want to offer apprenticeships, that can just happen. If the further education college, the private sector provider or the social enterprise provider has a direct relationship with a skills-funding agency that sits with us, they can get the funding for those apprenticeships. The apprenticeships are done according to the Trailblazer standards that we know the industry values, and if they value them they are going to value them in Lincoln and Bristol just as much as they do in London and Manchester.

I think there is quite a lot that will happen through leadership of institutions of training and of skills provision without government direction, but obviously if there is a local government or a local enterprise partnership that is willing to take on a bigger role, we are very willing to work with it.

The Chairman: On the wider point?

Mr Ed Vaizey MP: I am rather enjoying Nick's reflections on life and how one leads it, so I will try to echo that. There are good people and there are not such good people. How does one deal with that? To a certain extent there is no rulebook. You have to deal with it as you find things. On your specific question of, say, Tech City identifying a cluster focused on a particular technology and thinking the LEP is not up to it, I do think that Lady Shields very much has a seat at the table as the Prime Minister's lead adviser on technology. She works very closely with me and we work very closely with Greg Clark. To take a hypothetical situation—it has not happened yet—where we say that a particular cluster really needs a boost because we have this critical mass of companies and the LEP is just not engaging, you would probably see us as a ministerial team, if I can put it that way, looking at ways in which we could get the LEP to recruit more skilled people to help us, because we would need the LEP's help.

What I am saying is that there is no prescriptive solution. It might involve working with the council or direct negotiations with the LEP. I think that would be how you would address an issue like that, but it is quite a tight group; all of us are effectively focused, with BIS and No. 10, on supporting those clusters.

The Chairman: It was her chief executive who left us feeling that there was something of a gap in the process. He did not say that but we were left after the evidence thinking, "Where is the follow-through in this situation?"

Q253 Baroness O'Cathain: This Committee was set up to ensure that we got up to speed on digital skills and were aware that the digital economy was here, particularly in terms of our industrial competence and competitiveness with countries that are much more advanced in digital skills and digital knowledge. What I am hearing from you is that if the LEPs want to take it up, that is fine. The reality is that it is so important for the future of everybody in this country, particularly those who are excluded at the moment and the young ones who are coming through who get to the age of 14 and then fall off a cliff. There is no continuity. I just wish that you would come and say, "Digital is probably the most important thing facing us. If you ask us what the most important things are to deal with in this economy to ensure our competitiveness, jobs and growth, it is digital skills".

Nick Boles MP: I fear, Baroness O'Cathain, that there has been a misunderstanding, which I am very glad you have raised because I need to clear it up. We are not saying that if an LEP is not going to take the lead we are not going to do anything. We are saying, "This is going to happen anyway. If you, an LEP, want to have a role in taking a lead, great. Come forward with a proposal and we will entertain it, but it is happening whether you like it or not. The curriculum from primary school has been changed universally, for every single school, whether you like it or not. The offer of apprenticeships and Trailblazer standards is happening throughout the industry, whether you like it or not".

We probably should not be too Eeyore-ish about our standing in this. The embrace of the British people, British businesses and British non-businesses of digital everything far outstrips almost all our natural competitors. This has not happened as a result of government direction. It has happened because everybody out there is grabbing this. That is why we are investing a lot in broadband so that everybody has access to broadband, and why we are changing the curriculum in the way that we have done and changing the approach to skills.

I think the specific question was about where local government or authority leadership is going to come from, and I am saying that if it is there, great, but if it is not there we will just get on and do it anyway.

Baroness O'Cathain: You did mention en passant about us being leaders. Do you have any information that shows that we are leaders internationally? We are finding those statistics rather difficult to come by. I am asking you now, and if you could send them to us we would be grateful.

Nick Boles MP: I was more talking about the use of digital in shopping and everything else rather than specifically skills, but I will look and see if we have anything.

Q254 Lord Kirkwood of Kirkhope: I was very disappointed that Nick Boles was trying to discourage us from playing the parlour game of who goes into the Cabinet and who does

not. I thought he was selling his colleague short by not promoting the interests of Mr Vaizey. The evidence that we have heard suggests that the skill challenge does require direct Cabinet interest. We have heard evidence, and the potential impact on employability levels over the next five years surprised me, and continues to surprise me. We have heard that as many as 30% to 35% of existing current jobs may be at risk because of the threat from artificial intelligence and its impact.

I know a little about this because as a constituency Member I represented a seat that manufactured cashmere knitwear at high volumes. They were completely wiped out over a 10-year period by Chinese competition. Everybody saw it coming, no plans were made, and we ended up with an emergency. I think Gus in the Scottish Office helped us with some Scottish Enterprise job relocation schemes. My point is that it devastates communities, and if some of the evidence that we have heard is true, what happened in towns like Hawick in the Scottish Borders will happen across the country.

It is reassuring and I am sure it is important work. I absolutely agree about dealing with the siloed nature of some of these problems, because joint working across departments will help you to do that, and you are working very hard on some of these second-order issues, but are the Government up to the scale of the challenge? I think you will be interested when you see the written evidence that we have received. Is the current response at a strategic level at central government up to dealing with what could happen to employability?

In parenthesis—an important point made by the Chair—the Department for Work and Pensions is responsible for work and that is in another silo perhaps. Convince me. I know you are all working hard and I am convinced about that, but I am talking about the strategic challenge over the next five years at a central government level. Are we doing enough?

Mr Ed Vaizey MP: Yes, I think we are, and I obviously would not give you a different answer, given that we are from the Government and we are here to help.

The Chairman: Tell us what the Government could be doing more of.

Mr Ed Vaizey MP: Adopting the philosophical and reflective tone that is coming from your two Ministers on what you do about new technology changing the job market, to a certain extent there will be changes in the job market and people will be doing different skills. You mentioned Scotland. I was up in Liverpool yesterday and containerisation fundamentally changed Liverpool's economy. Government has to be alive to these changes, but we also know that the Scottish economy lost one sector of jobs but also gained in terms of silicon chip manufacturing for a period of time, so jobs will change. I was at a technology conference recently where Mike Lynch, formerly of Autonomy, was talking, and he said that when computers came in people said that they would take the place of the accounts department, but of course what they did not say was that you are then going to be recruiting lots of people to run the computers.

The fundamental point is that we have to prepare for a shift in jobs and a lot of them will be knowledge-based and IT-based, so what do we do about skilling up people in this country for those jobs? There are three or four things I would say in response to that. First of all, going back to my earlier answers about clusters, I think that the Government focusing on clusters is a very good thing, because you work with your partners locally to put some energy behind skills training and recruitment in those areas. For example, the Digital Catapult that we have

just launched has also launched with three regional centres. One of them is in Bradford, because it has a cluster of health technology companies. Brighton is another good example. That is one thing you can do.

The second thing is this point about putting computer coding into the curriculum. It was a hard-fought battle within Whitehall to get that change and I was delighted that it happened, because in opposition I had been told time and again by people recruiting in this area that too many of our kids are learning how to use computers but not how to write the programs that sit behind them. That is an important change. It will need investment. There is some investment going into training teachers and that change will take time to come through, although one should not underestimate the ability of our children, as I am sure you are aware, to teach themselves how to do a lot of this stuff.

The third thing is that technology will change how we do further education and higher education. We have a massive emphasis on apprenticeships, and I think those two changes come together by saying that in this world of digital technology, where things change so quickly, you can no longer have an education where you simply sit in a classroom and learn from a teacher. You have to engage with the world of work, not to earn some money while you are a student, not to get it on your CV, but actually as part of the way you learn the skills you are going to need in the workforce. We are looking at innovative ways of reshaping further education and university courses to very much include that. A lot of that will also include the opportunity to learn online as well, because we have to be conscious of people already in the workforce who need to gain the kind of skills to take their businesses forward.

It is a massive challenge, I agree with you, but we are very focused on it. I would say—and I hope this does not come out wrongly because I do not want it to sound like complacency—I think that every developed economy is facing these challenges. I do not think we can pretend that the grass is greener on the other side, that some other country has somehow unlocked this and realised what to do. In fact, the perennial thing we always get is, “Look at Korea”. I was pleased to learn the other day that the South Koreans are looking to us and saying, “It is very smart of the British to have put computer coding into their national curriculum. We should be thinking about doing the same in Korea”.

Q255 Lord Kirkwood of Kirkhope: As a result of this inquiry and the experience I have had, I would be looking for more urgency for the next five years. What do I know? I am a social security specialist. I think the answer is fine as far as it goes, but we could be facing a transformational change in employability in this country and I am nervous that we do not have a grasp of just how different this will be.

Mr Ed Vaizey MP: Nick is going in in a moment, I can tell, and having both of us outside the Committee trying desperately to get the other one to answer the questions, we are now so fired up by the discussion that we both want to dominate.

I would meet you halfway, Lord Kirkwood, in the sense that one of the pieces of work that the Digital Taskforce is looking at is literally a map—perhaps a very analogue approach—of where courses sit and which courses are successful in getting people into the kind of jobs they need. What we want to do is grip this, and it goes back to another theme that is dominating this discussion, which is the role between central government and local government. From the centre, we do want to grip this sense of urgency to make sure that these courses are up to scratch. The other thing I want to do, which Baroness O’Cathain and

others might be interested in, is grip with employers. There are so many initiatives coming from employers and there needs to be an element of coherence as well—lots in skills, lots in further education—and fundamentally to bring these two together, the quality of courses in further education and higher education, plus the really now important role that employers have to play in skills. What I am taking from your questioning is not just urgency in pushing our reforms even further and faster but also perhaps a shouting from the rooftops about why this is important, and I do not think we should underestimate that. When we talk about things like 5G and the Internet of Things, I do not only say that Government is investing but that Government is talking about them, and just talking about them helps people to focus and push forward.

Nick Boles MP: You may well be right, and in a sense you are right. If you have not heard it, we are somehow not communicating it. But I think there has been a dramatic shift in the last four years, and this is not really a political point; it is more about time passing. Four and a half years ago digital was an industry. It is not an industry; it is the way life, all of life, is going to be. Whether you are a farmer, a factory worker, a teacher, a care worker, a mum, a pensioner or anybody, digital is how life is going to be. That is why I think it is important that it is not just a BIS thing where BIS thinks about the digital industry when it then thinks about the automotive industry. It is not like that.

The one new element that I would focus on is that where I feel the greatest sense of urgency is in English and maths, particularly the maths end of English and maths. I am about to go to the Association of Colleges conference, and they are quite grumpy with us because we have made it very clear that if you leave school without a C in GCSE English and maths we expect you to go on studying for GCSE English and maths throughout the time that you are at FE college until you get it, unless you are in such a position that you cannot do GCSE, in which case you need to do something else. You need to do another high-quality but perhaps more practical English and maths qualification. It is the idea that you are literally handicapped, it is like cutting off a leg, if you leave school or full-time education without being numerate. Once upon a time you could work in a warehouse, you could stock shelves, and it did not really matter if you did not have great English and maths. Now you will have a handheld computer and you will be completely stuffed if you do not have some basic facility. I think you are right; it is absolutely urgent, but I generally believe that we are seized of that, even if perhaps we have not managed to communicate it to you.

Q256 Lord Aberdare: I love the idea of launching a catapult. I am trying to get my mind round that.

Can I ask you about some of the risks involved in the new digital economy and what you see as Government's role in managing those? We have heard a lot about the challenges of cybersecurity, cybercrime, personal risk such as online bullying and identity theft. Two messages have been coming across very strongly. One is that these need to be absolutely central to the educational and skills-building process, that people need to understand how to use digital safely and with security. The second is that there is a really strong opportunity here as well, which the UK could perhaps build on because we have some real strengths. The question in that context is what Government can and should do to foster those two things.

Mr Ed Vaizey MP: I would echo what Nick said earlier: that it is not a partisan point but that over the last four years we have seen these issues come to the fore and be absolutely

central to what Government does in policy. If you talked about cybersecurity five or six years ago it might have been a kind of noises-off issue. Now it is absolutely front and centre, because so many of us, whether as a business or an individual, need to be secure online. I think we did something very good in the early part of this Government in 2011. At a time when we were looking at having to make savings, a really significant sum of money, £860 million, was put behind the national cybersecurity strategy that we launched. A lot of that is for national security, for very obvious reasons, but a lot of that money also goes to support businesses and individuals.

We work with SMEs, mainly online, to give them checklists about the kind of things they need to keep themselves secure, whether it is a complicated password or antivirus software. We work with business and internet service providers, with consumers and parents in particular about staying safe online, and with schools. We work with professional agencies, lawyers and accountants, because we see them as a gateway. One accountancy firm will be advising potentially hundreds of small firms, so we work with them to say, “As part of your professional advice to your clients, you should be talking to them about cybersecurity”. We are working, as you may have seen reported in the press recently, on an identification scheme for government services called the Identity Assurance scheme, which is work in progress. The Department for Education takes issues such as cyberbullying very seriously, as does the Director of Public Prosecutions. So there is a whole range of activity.

On your point about this being an opportunity for the UK, absolutely it is, and at the end of this month I will be going to a cybersecurity trade fair in Qatar. I co-chair, with Gavin Patterson from BT, a cybersecurity export committee. We work with businesses in the UK that have expertise in this area. A lot of these businesses work with Government and with businesses in the UK. We have a great deal of expertise that is an opportunity as an export market for the UK as well.

Q257 Lord Holmes of Richmond: I would like to look at the level of ambition. We have touched on this a little. There is evidence to suggest that the UK is falling behind other economies. What can the Government do with the digital strategy and any other means to ensure that the UK is positioned as a global leader?

Mr Ed Vaizey MP: I hesitate to take on Lord Holmes, but I would question whether there is evidence that we are falling behind. Nick already mentioned that the UK consumer drives a lot of innovation in this country. We are ahead of the game in our adoption of e-commerce and new technology. Funnily enough, a lot of that comes from the bottom up. I would say that the UK is probably the technology capital of Europe. It is where a lot of companies come to scale up and grow. While I think we are among the leaders—and certainly I feel that about our dealings with, for example, the European Union where people look to the UK for leadership on a lot of digital policy areas—where I would absolutely agree with Lord Holmes is that there is no room for complacency.

To answer your question, what are we doing, first of all, to echo what I said earlier, is talking about it, which again sounds prosaic but is really important. We talk about how the UK wants technology investment, how we want to support technology companies not just starting up but scaling up. We invest in the future, so we work with universities and other countries to invest in research in things like the Internet of Things and 5G, smart cities and so on. We create a business-friendly climate in terms of straightforward corporation tax reduction and things like the Enterprise Investment Scheme. We work with employers on

skills, for example in the Tech Partnership, and in building digital infrastructure, which we have talked about in passing, the rural broadband programme and the like. I think that we are among the leaders in the world, but we are not complacent and we continue to push forward on many fronts.

Lord Holmes of Richmond: I agree with all that you have set out. That is all good stuff, but we heard earlier about the obvious importance of literacy and numeracy, and we would all agree with that. Do you think that within government there is the same level of urgency and understanding about digital to make it literacy, numeracy and digital? Much of what will be literacy and numeracy, the way people will adopt and gain those skills, will come through digital. It is almost literacy, numeracy and digital, with digital underpinning literacy and numeracy as well. Do you honestly feel that in government you can see digital absolutely alongside that level of importance with literacy and numeracy?

Mr Ed Vaizey MP: Yes, I do. Again, to a certain extent one might stretch the definition of digital here. Sometimes Education Ministers get themselves into trouble, and I straddle what I do not necessarily regard as a divide of the cultural world, the arts world and the digital world. Sometimes when Ministers are straining themselves to emphasise the importance of science, technology, mathematics and engineering they can be criticised by my colleagues in the arts world of somehow saying that the arts are less important. I do not think by any stretch of the imagination that it is an either/or; nor do I think my colleagues are saying that. I think they are trying to make up a gap in how perhaps some of the science and technology subjects are seen.

One of the unique characteristics of the UK, which again puts us in the lead in digital, is this blending of the arts and technology. It is why a lot of companies want to come here to invest: because of the creativity. Whenever I go to a school to talk to them about the importance of the arts and digital, I have to get out my iPhone and explain that it is a hot seller not just because of the technology it contains but because of the beauty of its British design. We do strain every sinew to try to get the message across that digital is now absolutely part of the core skillset, and in fact Nick said that very forcefully in one of his earlier answers. It is part of the skillset that you really should be leaving school numerate as well as literate and digitally savvy.

Q258 Baroness O'Cathain: There are few resources to invest in digital skills, with more cuts pledged after the next general election. In this context, how do the Government plan to meet the immediate needs of the tech sector to realise the ambitions of the industrial strategy?

Nick Boles MP: First, it is important to say that in general more cuts are going to be needed, whoever is in government after the next election. There are no specific plans for cuts to further education and skills budgets, but it is reasonable to say that they have been a target for some cuts in the past and they are unlikely to escape entirely unscathed. Having said that, within the skills budget there is quite a lot of scope for movement between different areas. The biggest emphasis that we have had so far, and which we will continue, is on shifting funding away from qualifications that bluntly did not really give anybody a skill that was going to be of any use in a job towards qualifications and programmes that are going to add value to people and make them more employable. It is very likely that we will see a continuing shift in resources into apprenticeships and traineeships, more employer-based learning and fewer full-time courses at colleges.

Also on apprenticeships and traineeships, I would be delighted to see digital apprenticeships that critically—relating to the previous point—do not just prepare you for work in the digital industry but prepare you for work in the banking industry, in retail or whatever it is, and those will take an increasing share of apprenticeships funding. That ultimately is going to be demand-based. The more employers who want to offer apprenticeships that accord to some of these new digital standards, the more we will be able to fund those rather than slightly less high-value apprenticeships of the traditional kind.

The Chairman: Do you not need to get your foot on the pedal a bit more on all this? We have had a lot of evidence about FE skills, and the tiny number going into digital apprenticeships at the moment, and the clunkiness of the system as it stands, and that there are good changes happening but still an awful lot of people going through courses and coming out not really prepared for things. It is not nimble enough and it is not fast enough. Is there not a case for a much bigger shove to shake this whole thing up?

Nick Boles MP: I hope it is not entirely cheeky, Baroness Morgan, to point out that you started a revolution in schools, and that it took several terms of a Labour Government and this term of a coalition Government and it is still not complete. We have only just over 50% of secondary schools that are now enjoying those academy freedoms. Big changes to a complex and mature country do take time. We are replacing apprenticeship standards with Trailblazer standards that have been formed by employers. All apprenticeship standards are due to be replaced by these new standards by 2018, but not the idea that one can literally just sort of switch completely from one system to another system overnight.

Our biggest challenge, particularly on apprenticeships, is persuading employers to do them. We have only roughly 10% or maybe 13% of employers offering apprenticeships. We need it to be 20%, 30%, 40%, 50%, but that is a matter of persuading them that it delivers for them, that it is relevant to them. What is interesting is that you never find somebody offering apprenticeships and then pulling out, but it is getting them over the line. We are all possible speed, but equally we need to get it right and we need to be realistic about how quickly you can transform a system. We have had 2 million apprentices in this Parliament. That is quite a lot of people to move from one system to another.

Q259 Lord Macdonald of Tradeston: Looking forward to the next Parliament, 2015-20, we have heard that they need to try to prioritise this and have more urgency attached to it. You described the co-ordination in Whitehall, which made a bit of sense and I can understand completely why Mr Vaizey, who is an excellent communicator, has this role. But looking forward, we are finding that there is a lot foreboding around. It is very bewildering and people do not know which initiative they should be pursuing or cannot find one that suits them at all. It needs probably in the next Parliament more central direction and reassurance. With all due respect to DCMS, that is not where the Minister should be put in the next Parliament. That Minister should be in the middle of the Cabinet Office, leading perhaps the Digital Taskforce with a much stronger platform and a much louder voice.

Do you not have to turn up the volume here, partly to persuade colleagues but also to persuade the general public, who I think are directionless and rather fearful at the moment, just to say, “We will try to protect you, to advise you, to make sure the budgets are protected that will help you through this critical stage of our national journey.”?

Nick Boles MP: It is for the Prime Minister to decide. I am going to save Ed's blushes by saying that I would not be more delighted than to see Ed Vaizey as the Secretary of State for the Digital Economy and the Creative Industries after the next election, but ultimately the Prime Minister will decide.

Mr Ed Vaizey MP: I know that if we do win the election, Nick will be the Skills Minister. We need him to do the job for five years to ensure that we have continuity in this role.

What I would say, Lord Macdonald, is that the enjoyable thing about appearing in front of a Lords Select Committee is that it is not an inquisition, it is more of a dialogue. I think you make a very important point about reassurance. Nick and I can tell you about all our initiatives, and I do think we are making real progress, but the challenge put forward from this Committee is a narrative and the challenge is this reassurance point. We are going through a period of deep transition. From where I am sitting it looks like a land of great opportunity for the UK. From where other people are sitting it looks like change and uncertainty. So we need to bridge that gap and I think the point is well made.

Q260 Lord Haskell: Can we move on to the question of HE and FE colleges? What is your view about ensuring that education colleges deliver the skills that are needed in industry?

Nick Boles MP: I should point out that my specific responsibility is further education, not higher education. I think there is a difference between universities and colleges, because universities have traditionally been less tightly regulated by Government. Ultimately, with the way the university system is now set up, with tuition fees and loans reflecting the true cost of an education, or at least much more closely than before, there is much greater ability and likelihood that universities will be forced to respond to the consumers. I do not know if you have noticed this, but I have noticed in every conversation I have with somebody between the ages of 16 and 22 that they are much fussier customers than certainly we ever were about what they are actually getting from their universities. If their universities are putting them on programmes that do not lead to jobs, the faster that we can publish the destination data—some key measures are going through in the small business Bill at the moment—the more likely it is that the market will work and that students will drive out courses that do not prepare them for a life of fulfilling employment and back those that do.

In FE colleges, the way we are riding that is we will do that too. We will also have destination data about the different courses, but the key driver is apprenticeships. I am sorry to bang on about it, but that is the most important thing. Ultimately, if you have apprenticeships, they are jobs, not training programmes. They are offered by employers and if those employers have both designed the standard—or at least their colleagues in the industry have designed the standard—and are offering the jobs, I think we can be reasonably confident that the training that will be provided as part of those jobs will be relevant to an actual piece of work rather than just theoretical. I think that is the way to do it: to drive up the share of apprenticeships in the total further education pot—and that is what we are trying to do.

Lord Haskell: I am old enough to have been to a technical college before they became universities and that is precisely what they did. You worked at a company and you were taught at the college. Would you not think that if you want to get more firms to do more apprentices, the way to do it is to get FE colleges to help them along the way by sharing the load?

Nick Boles MP: Obviously FE colleges are critically involved in providing the formal training for apprenticeships, but I agree with you. Yesterday, for entirely personal reasons, I was at Birkbeck College for a graduation ceremony that my partner was going through. Birkbeck College is one of the most extraordinary institutions of learning in this country. How does it do it? It does it by offering part-time courses to people who are holding down jobs, who are often a bit older when they are doing it and may take a little longer to do it. It gets consistently rated as one of the best universities in the country by its students and it is producing value. To some extent, I am surprised by how slowly the university sector has changed. I would have expected, and do expect in the next 10 years, a much more rapid embrace of sandwich courses, shorter courses, longer courses, more part-time courses, so that people can be learning alongside working rather than just having this stage at the beginning of your life that you leave behind and never returning to a textbook or a lecture.

Lord Janvrin: Can I follow up, Nick, on something you said earlier about the length of time it takes to embed real change in apprenticeships, for example? I think that is what you were referring to. It is a philosophical point, but the fact is that we do not know what the jobs that you are now preparing for are going to be—the old argument—because things are changing that quickly. How are we addressing that fundamental problem? It takes time to change, yet the world outside, the world of work, is probably changing faster.

Nick Boles MP: It is always a fascinating tension, is it not, because on the one hand there is the idea that employers will have the best idea of what skills are relevant, but if those employers themselves change and disappear or are merged, if the jobs are completely redefined, how relevant is it? The answer is that there is much more common at the heart of work than perhaps we think. Of course you need specific skills and you are going to have to update those consistently, and just doing an apprenticeship at the age of 19 or 20 is not going to mean that you will have all the skills that you will need at the age of 40 or 60 to hold down the job you have then. But if you have acquired those skills in employment, your chances of being able to make yourself consistently relevant, to understand what is happening around you, to go and fill in the gaps where you need it, are much higher than if you had done it in an entirely separate institution that is an institution of learning where, for the best will in the world, most of the teachers have been working in the institution of learning and have not been working in the world of work. I think there will need to be constant updating, but the apprenticeship is more likely to offer you skills of immediate and lasting value than a theoretical course.

Q261 Lord Lucas: I would be interested to know, as an aside, whether Mr Vaizey has been pleased with the response of universities to the Next Gen report that put a fair old bomb under them when it came to games courses.

Mostly I wanted to ask Nick, several things you have said echo what witnesses have said to us—notably Karen Price of e-skills—about the need for up-to-date, industry-standard, short, funded courses, so that people who want to change career or return to work can prove to themselves and an employer that they are up to whatever new job they are looking at. Is there any hope of getting such a thing?

The Chairman: That is really what I was talking when I talked about the clunkiness of the system at the moment. It was not really about apprenticeships; it is about the rest. It is the

courses that they are all slogging their way through where industry are saying, “We really think you could do this in four months and it would be very useful”.

Nick Boles MP: I accept that. The key word you used from the point of view of a Government in our circumstances is “funded” and funded by whom. I think we have to be very clear that if you have already received a qualification of some kind and you are therefore trying to update, renew and refresh your skills, we want to make it as easy as possible for you to take out a loan to fund your further learning. We are not going to be in a position where taxpayers are funding people to go on taking short courses throughout their working lives. It is simply not the reality, but I think expanding the availability of the loan system to help people do that so that they can call it off on roughly similar terms to the student loans is the way we are moving, and we will need to move further.

Lord Macdonald of Tradeston: But the piloting of that has been pretty unsuccessful. Do you have any theories as to why it has not been more successful?

Nick Boles MP: What was unsuccessful was the switching of apprenticeships for people of that age group on to loans. Bluntly, we decided that was a mistake and we have gone back to the previous system. I do not think it is clear what other courses might come later. If you are somebody who is doing an apprenticeship and therefore doing a qualification at that level for the first time in your life, given your other circumstances it may be rather hard. The whole point of an apprenticeship is a job, and the idea of having to take out a loan to get the training for a job where you are being paid less than you would otherwise be if you were fully trained was perhaps a bridge too far. I think the idea of a 35 year-old who already has a set of qualifications taking out a loan to do a one-month course or a three-month night course or whatever it is to give them a particular set of relevant qualifications is something that we should explore, and I suspect that will be more successful and will take better.

Q262 Lord Macdonald of Tradeston: We have heard the evidence that SMEs are vitally important to the future of the UK’s digital economy but are facing numerous challenges. How can the Government better support SMEs?

Mr Ed Vaizey MP: I gather that in 2012 website sales amounted to £164 billion, so SMEs are doing very well. We have something called the small business capability programme, an elegantly phrased programme, where we are working with industry to reach more than 1.5 million businesses, and that is taking place over the next five years. Echoing some of the earlier answers, we work with LEPs and with Go ON, which as you know is the charity that promotes digital inclusion, and we are about to launch a nationwide campaign to maintain our momentum. That is what we are doing.

The Chairman: We have heard that there is some great stuff but that in other places SMEs do not have a clue about digital really. It is a bit back to the point of what works and what does not. Where there is a strong chamber of commerce, they are doing some quite interesting stuff, and where there is not they are a bit in a hole. It is really back to our earlier point, is it not?

Lord Aberdare: It also applies to apprenticeships, of course. Everybody is trying very hard to get the SMEs involved, both in the skills and in the apprenticeships, and it is proving very difficult. I do not know what the answer is.

Nick Boles MP: The key thing we want to come up with and we are making pretty good progress on, although we have perhaps gone down a couple of blind allies, is the funding

reforms for apprenticeships. We need to basically get the money to employers as simply as possible, consistent with basic checks that they are not spending it all on trips to Rio. The challenge I set officials is that I just want to write a cheque and send it to the company to provide an apprenticeship. Then I want a proper assessment at the end to make sure that the apprenticeship they delivered was the proper one and was according to the standard, and if they monkey about they do not get any money next year for apprenticeships, rather than creating some incredibly elaborate system. You are not going to get small companies to do it if it is complicated, but equally we do need to have them in the driving seat. It is no good just carrying on spitting money at providers, because then the employers are not really involved in the process. That is the tension.

Lord Aberdare: I think that mechanism also needs to take account of the way SMEs work in this area. You need to look specifically at ATAs and GTAs and how they can be part of this.

Nick Boles MP: Absolutely. It is particularly important for small companies; that is exactly right. We want to encourage intermediary bodies that in effect will employ the apprentices and then place them with perhaps more than one employer, if that is the way it should work, in order to complete the apprenticeship. The key element is that they have to be separate from training providers. They cannot be the marketing front end of a training provider, because if that happens you get locked into a particular training provider and we do need there to be a competitive market in the providing of the training that is attached to the apprenticeship.

The Chairman: I am going to make this the last question, because I am conscious of the time, which means that we will not come to careers as such but I think we touched on it earlier on. If you wanted to send us anything extra around careers, that would be very helpful.

Q263 Lord Lucas: How do we get teachers up to speed so that they can support the learning revolution, and how do we make sure that all kids have access to the internet at home?

Mr Ed Vaizey MP: Lord Lucas, I agree with you that that is the big challenge. It is one thing to say that we are going to put computing into the national curriculum, it is quite another thing to deliver it. I am pleased that the Department for Education—I will speak on behalf of the Education Minister sitting next to me—has put in more than £3.6 million to help existing teachers to get ready for the new curriculum. This includes £2.1 million for computing at school, to expand the network of teaching excellence in computer science and to create 400 master teachers, and a further £1.1 million to develop the Barefoot programme, which gives primary teachers the opportunity to develop their subject knowledge through 800 workshops across the country. We are also working with Microsoft, Google and the Raspberry Pi, which goes back to my point about getting clear coherence about which companies are working. We are also working with Code Club, which as you know has volunteer expert trainers and they are training 3,000 primary schoolteachers. We are also providing bursaries for teachers who want to teach computer science.

As to how can every child get the internet, that is down to me full square, and the biggest part of my job is the rolling out of rural broadband so that people have access to broadband. I think that it is a good thing in this country that broadband is relatively cheap. We have a competitive marketplace that means that it is cheaper, but I recognise that there will be households for whom either broadband is not seen by the head of the household as

something to have or it may be too expensive and we need to look at that in terms of digital inclusion. We also need to promote organisations like libraries, where there is a huge opportunity to go and use your library to access the internet. I was in Liverpool yesterday talking to people who had been to Birmingham the day before. They are two new central libraries around with students using the internet, and I think libraries are a very important part of that.

Q264 The Chairman: Can I push you a little on two things? I thought we would get those stats, because we have had them before. I do not know whether you know how many schools there are. Do you know how many schools there are?

Mr Ed Vaizey MP: Off the top of my head, around 18,000, slightly more.

The Chairman: About 25,000.

Mr Ed Vaizey MP: About 25,000? Eighteen thousand primary.

The Chairman: We have had Code Club and we have had all the people you would expect in front of us, who are doing great stuff, but again the question is how we kick the system to get there faster, because on this one we cannot wait. We have had some great teachers, but they are honest enough to say that not many of them are able to do this at the moment. The strong view of the Committee has been that there is some great stuff, but how are you going to give this a much greater emphasis than you are at the moment and make it happen faster?

Mr Ed Vaizey MP: Is that a rhetorical question or—

The Chairman: You can give me a little answer.

Mr Ed Vaizey MP: As I say, it is the great challenge. We are at the early stages; it has just come on to the curriculum. My colleagues at the Department for Education have put money behind training teachers, but I agree with you that with 25,000 schools there is a big ask. It is not as if this is landing from out of space. There will be teachers teaching IT already, so there is already a core group. This is to give teachers who do not have those skills the opportunity, particularly in primary schools. But again it is part of the beauty of the computer science environment that there are a lot of people like Code Club who can come in and help. So there are lot of big society type initiatives that are already well under way in engaging pupils with computer science.

Nick Boles MP: Ultimately, we operate a decentralised but inspected system. It is part of the curriculum. They will be assessed by Ofsted on the quality of their teaching and the delivery of the curriculum, and they are used to that. The curriculum has changed over time and they have been asked to do different things. They have to gear up and working with all these different programmes is a way of doing it. Also it is about getting the teacher training programmes, Teach First and all the others to take this seriously so that everybody they send into the system has these skills. Not every teacher needs to be able to teach coding. You need to have some in each school, and with the number of new teachers coming into the system there is a good chance of making sure that those are coming through.

But it is an absolutely urgent priority, just like equipping further education teachers to be able to carry on teaching English and maths GCSE. That is a huge challenge too, but once it is part of the expectation they do need to be able to get organised.

The Chairman: Thank you very much indeed. That was a very constructive conversation.