



# Library Note

## Work of the Ad Hoc Committees in 2014–15: House of Lords Digital Skills Committee

On 12 June 2014, the House of Lords Digital Skills Committee was appointed with the remit of considering “information and communications technology, competitiveness and skills in the United Kingdom”. Following its inquiry, the Committee published a report, *Make or Break: The UK’s Digital Future*, on 17 February 2015.

Reviewing the evidence on the UK’s digital economy, the Committee concluded that there was a risk that the UK might be left behind in the global skills market if it did not provide the right conditions to enable digital businesses to flourish in the UK. It argued that the UK was at a “make or break” point in time, when it needed to ensure that it could continue to compete with other countries around the world. Key to this was the UK having the right skills and infrastructure to keep pace with the requirements of changing digital technology.

The Committee’s principal recommendation was that the Government should produce a new digital agenda. The Committee described the purpose of such an agenda as to enable the Government to better coordinate both its own initiatives and initiatives outside of government. The Committee recommended that there should be a cabinet minister with responsibility for implementing this agenda, located in the Cabinet Office, who would report annually to Parliament on progress made. The Committee also recommended that Parliament should establish the best means of maintaining oversight of the progress of the digital agenda.

The Committee’s report included its own illustrative digital agenda, submitted for the Government’s consideration. This included the following objectives:

- That people in the UK should be able to have access to digital technologies.
- That the population as a whole should have the appropriate levels of digital skills.
- That digital teaching in schools, universities and further education should meet the requirements of the modern industry.

The Government published its own Digital Strategy on 1 March 2017. This included a commitment to complete the roll-out of 4G mobile coverage and superfast broadband by 2020 and implement a Universal Service Obligation. The Government also said that it would ensure that adults in England who lacked digital skills would be able to access basic digital skills training for free.

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## 1. Background

On 12 June 2014, following the recommendation of the Liaison Committee, the House of Lords appointed a committee to “consider information and communications technology, competitiveness and skills in the United Kingdom”. The Digital Skills Committee would be chaired by Baroness Morgan of Huyton (Labour).<sup>1</sup>

The Committee took oral evidence from 59 witnesses during 20 evidence sessions, and received 111 pieces of written evidence. It also carried out visits to the following organisations: the Guardian Media Group and Google Campus in September 2014; the BBC Blue Room and BBC Research and Development in October 2014; the Hartree Centre, Warrington in October 2014; and Imperial College London in November 2014. The Committee’s final report, [Make or Break: The UK’s Digital Future](#), was published on 17 February 2015.<sup>2</sup>

This briefing provides information about the work of the Committee, its recommendations and the government response, and a summary of the debate held in the House of Lords on the report. It concludes with an update on developments which have occurred since the Committee reported, including the publication of the Government’s Digital Strategy in March 2017.

## 2. Committee Report

The Committee considered the pace of recent developments in digital technology and concluded that the current rate of change was having a transformative effect on the UK economy and on UK society as a whole. It noted:

The world is being transformed by a series of profound technological changes dominated by digital—a ‘second machine age’. This is already having a significant impact on the UK; over the next two decades some economists have estimated that 35 percent of current jobs in the UK could become automated. Digital technology is changing all our lives, work, society and politics. It brings with it huge opportunities for the UK, but also significant risks.<sup>3</sup>

In the light of these developments, the Committee considered a number of pre-conditions which it believed were essential to the UK’s long-term success. The core three were cyber security, hard infrastructure, and what the Committee referred to as soft infrastructure—the skills of the population to use digital technology.<sup>4</sup> The Committee concluded that there needed to be improvements to the UK’s hard infrastructure, such as in the delivery of superfast broadband.<sup>5</sup> In terms of soft infrastructure, the Committee concluded that the attainment of digital literacy across the whole of the population needed to be increased and that the skills of the UK workforce needed to match those of other countries.<sup>6</sup> It also concluded that the number of women in digital and science, technology, engineering and mathematics (STEM) jobs needed to be improved.<sup>7</sup>

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<sup>1</sup> [HL Hansard, 9 June 2014, col 129.](#)

<sup>2</sup> House of Lords Digital Skills Committee, [Make or Break: The UK’s Digital Future](#), 17 February 2015, HL Paper 111 of session 2014–15.

<sup>3</sup> *ibid*, p 1.

<sup>4</sup> *ibid*, p 23.

<sup>5</sup> *ibid*, pp 26–7.

<sup>6</sup> *ibid*, p 29.

<sup>7</sup> *ibid*, p 36.

In terms of cyber security, the Committee concluded that there needed to be an increase in awareness of the cyber risk, in particular amongst small and medium sized enterprises, and that there needed to be more people in the UK trained in cyber security.<sup>8</sup>

### Key Recommendations

The Committee argued that the Government should take a more proactive leadership role to enable the UK to keep pace with the speed of technological change, both in terms of the UK's workforce and infrastructure.<sup>9</sup> The Committee described how the Government might achieve this:

The Government should act as the 'conductor of the orchestra' and play an enabling role, focused on business and education. Although the Government is tackling many issues through a range of initiatives, their efforts would be more effective if they were better coordinated. The Government needs to take responsibility for leading the UK through the seismic changes brought about by changing technologies.<sup>10</sup>

The Committee produced five recommendations. The principal one of these was that the Government should produce a digital agenda.<sup>11</sup> The Committee described the purpose of such an agenda as being to enable the Government to better coordinate both its own initiatives and initiatives outside of government by providing "leadership from the centre".<sup>12</sup> The purpose of this leadership would be to enable the UK to keep pace with other leading digital economies around the world.

Three of the remaining recommendations related to the implementation and scrutiny of the Government's digital agenda. The Committee stated:

- That there should be a cabinet minister, located in the Cabinet Office, given responsibility for implementing the Government's digital agenda.
- That this Minister should report annually to Parliament on the progress of its implementation.
- That, as the Digital Skills Committee had finished its inquiry and was to disband, the House of Lords Liaison Committee should consider how best to ensure Parliament would be able to continue to provide oversight of the Government's digital agenda.<sup>13</sup>

The Committee included its own illustrative digital agenda, which provided a number of objectives that it proposed the Government might wish to consider. The fifth recommendation of the Committee was that, following the 2015 general election, the incoming Government should comment on this illustrative agenda.

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<sup>8</sup> House of Lords Digital Skills Committee, [Make or Break: The UK's Digital Future](#), 17 February 2015, HL Paper 111 of session 2014–15, p 39.

<sup>9</sup> *ibid*, p 8.

<sup>10</sup> *Ibid*, p 13.

<sup>11</sup> *ibid*.

<sup>12</sup> *ibid*.

<sup>13</sup> *ibid*, p 14

## 2.1 Illustrative Digital Agenda

### Access to Digital Technologies

The Committee argued that the Government should ensure that the population as a whole have unimpeded access to digital technology.<sup>14</sup> This would include facilitating universal internet access. It would also entail removing so-called ‘not-spots’ in urban areas, where businesses were unable to connect to fixed and mobile broadband.<sup>15</sup>

### Skill Levels

The Committee recommended that the population as a whole should have the appropriate skill levels they needed to use digital technologies.<sup>16</sup> This would be achieved in part through the Government, industry and the individual taking responsibility to create what the Committee described as a “culture of learning for life”, enabling the UK’s digital expertise to keep pace with the rate of technological change.<sup>17</sup>

The Committee argued that skill levels could also be improved through meeting the following objectives:

- That the Government retain the target, set in the Coalition Government’s 2014 Digital Inclusion Strategy, for everyone to be “digitally capable” by 2020. Digitally capable was defined in the strategy as the ability to use computers and the internet.<sup>18</sup> It also included having access to the internet and, where required, having access to assistive technology.<sup>19</sup>
- That the Government seek to significantly increase the number of girls studying science, technology, engineering and mathematics (STEM) subjects in further and higher education, including those in vocational education.
- That the Government seek to ensure that 10 percent of the workforce have high-level digital skills by 2020, so that the UK has sufficient digital specialists.
- That the Government facilitate a greater role for industry in the development of skills.<sup>20</sup>

### Risk Management and Cyber Security

The Committee argued that there should be greater awareness of the risks regarding cyber security, and that individuals and businesses should know how to protect themselves online.<sup>21</sup> It recommended that cyber security be placed higher on the public agenda and that cyber security

<sup>14</sup> House of Lords Digital Skills Committee, [Make or Break: The UK’s Digital Future](#), 17 February 2015, HL Paper 111 of session 2014–15, p 14.

<sup>15</sup> *ibid*, p 26.

<sup>16</sup> *ibid*, p 14.

<sup>17</sup> *ibid*.

<sup>18</sup> *ibid*.

<sup>19</sup> Cabinet Office and Government Digital Service, ‘[Government Digital Inclusion Strategy](#)’, December 2014.

<sup>20</sup> House of Lords Digital Skills Committee, [Make or Break: The UK’s Digital Future](#), 17 February 2015, HL Paper 111 of session 2014–15, p 14.

<sup>21</sup> *ibid*, p 15.

education start at school level. The Committee added that there should also be a sufficient talent pool of people in the UK with specialist knowledge in cyber protection.

### **Schools and Teachers**

The Committee recommended that digital literacy should be taught as a core subject in schools, and it should be the objective of the schools system that no child leave education without basic numeracy, literacy and digital literacy.<sup>22</sup> It also recommended that more focus should be placed on schools building links with employers, including through the inclusion of representatives from industry on school governing boards.

A new computing curriculum was introduced in September 2014 which required that all children be taught how to code.<sup>23</sup> The new curriculum was welcomed by the Committee, however it argued that many teachers were not confident enough or adequately equipped to deliver it. The Committee argued that the Government should also prioritise the proper implementation of its new computing curriculum. To enable the curriculum to be implemented, the Committee recommended more investment be made to train new computing teachers and that there should be more urgency in training existing teachers.<sup>24</sup>

### **Further Education and Apprenticeships**

The Committee recommended that there should be a comprehensive review of existing further education in digital skills. The objective of this review would be to establish how further education could best meet the needs of industry.<sup>25</sup> The Committee said that this six-month review could commence at the start of the 2015–20 parliament and would be conducted by the network of employers, Tech Partnership. The review would consider issues including: how to facilitate partnerships between further education and industry; how to increase the number of digital apprenticeships; and how to ensure that the accreditation and qualification systems met the needs of industry.

### **Higher Education and Research and Development**

The Committee recommended that the Government seek to create a more responsive higher education system, with courses more aligned to the requirements of employers.<sup>26</sup> The Committee also recommended that the Government conduct a review of UK research and development to ensure that it was comparable with other leading economies.

### **Employment Guidance**

The Committee described ways in which careers guidance was provided as being outdated, arguing that it required a radical rethink.<sup>27</sup> This would include renaming careers guidance as employment guidance. The Committee argued that, as part of this rethink, employers should have greater involvement in the guidance provided. It also argued that parents and teachers should have a greater awareness of what the future employment options were for young

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<sup>22</sup> House of Lords Digital Skills Committee, [Make or Break: The UK's Digital Future](#), 17 February 2015, HL Paper 111 of session 2014–15, p 15.

<sup>23</sup> *ibid*, p 46.

<sup>24</sup> *ibid*, p 48.

<sup>25</sup> *ibid*, p 96.

<sup>26</sup> *ibid*, p 16.

<sup>27</sup> *ibid*, pp 62–3.

people.<sup>28</sup> It recommended that there be a wholesale review of employment guidance and how it is provided.<sup>29</sup> It also recommended that a central, online employment resource should be created and that this resource should be accessible through social media and other channels.

### **Business Involvement and Support**

The Committee recommended that the Government should cooperate with industry in the development and implementation of its digital agenda.<sup>30</sup> As part of this, the Government needed to conduct an awareness campaign on the need to improve digital skills among small and medium-sized enterprises.<sup>31</sup> The Committee also recommended that information, advice and guidance be provided through local networks such as chambers of commerce, UK online centres and local enterprise partnerships.

### **Regional Ecosystems and Clusters**

The Committee identified a number of so-called regional or sub-regional clusters in which similar businesses, grouped around a particular industry, had developed in a particular area.<sup>32</sup> These included MediaCityUK in Salford and Tech City in East London.<sup>33</sup> The Committee also identified the different areas of the country that had fallen behind in terms of digital literacy and skills. The Committee recommended that, as a means of encouraging local economic growth, both national and local government, as well as industry, should help identify potential new clusters and provide appropriate support. The Committee also recommended that the higher education system could play a role in developing these new clusters.

## **3. Government Response**

### **Digital Agenda**

The Government's response to the Digital Skills Committee's report was published on 21 July 2015.<sup>34</sup> It stated that the Government was committed to ensuring that the UK remained a leading digital economy. The Government agreed with the Committee that, to achieve a "truly digital economy", it needed to work in partnership with industry to ensure that individuals and businesses were able to benefit from digital technologies.

In response to the Committee's recommendation that it develop a new digital agenda, the Government did not commit to publishing such an agenda. However, the Government stated that it would seek to achieve its digital objectives through the Autumn Spending Review and the development of new departmental plans.

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<sup>28</sup> House of Lords Digital Skills Committee, [Make or Break: The UK's Digital Future](#), 17 February 2015, HL Paper 111 of session 2014–15, p 64.

<sup>29</sup> *ibid.*, p 16.

<sup>30</sup> *ibid.*

<sup>31</sup> *ibid.*, p 77.

<sup>32</sup> *ibid.*

<sup>33</sup> *ibid.*, p 82.

<sup>34</sup> HM Government, [The Government's Response to the House of Lords Select Committee Report on Digital Skills](#), July 2015, Cm 9099.

## Ministerial Responsibility

Although it did not commit to the publication of a digital agenda as envisaged by the Committee, the Government did respond to the Committee's recommendation that there should be a cabinet minister with responsibility for this area of policy. The Government stated that Ed Vaizey, the then Minister for Culture and the Digital Economy, was responsible for the Government's digital objectives, and that he reported to the Secretary of State for Business, Innovation and Skills and the Secretary of State for Culture, Media and Sport.<sup>35</sup>

The Government said that it recognised the need for a cross-departmental approach. It stated that Mr Vaizey was the chair of the Prime Minister's Digital Infrastructure and Inclusion Implementation Taskforce. This taskforce included a number of cabinet ministers including Matt Hancock, the then Minister responsible for the Digital Transformation of Government.

The Government also said that, since May 2015, Mr Vaizey had responsibility for the Government's Digital Economy Unit, whose role was to form the UK's digital skills and infrastructure policy. The Government's Digital Economy Unit had previously been a joint unit of the Department for Business, Innovation and Skills and the Department for Culture, Media and Sport. Since May 2015, it was based at the Department for Culture, Media and Sport.

## Illustrative Digital Agenda

The Government said that it agreed with many of the aims set out in the Committee's illustrative digital agenda, stating there were notable "synergies" in the Government's and the Committee's thinking.<sup>36</sup> For example, the Government stated that it agreed with the need to support the development of local digital technology clusters. It also said that the Digital Infrastructure and Inclusion Implementation Taskforce's key objective was to improve the UK's digital infrastructure and digital skills.<sup>37</sup>

In an appendix to its response, the Government listed the commitments in the Conservative Party's 2015 manifesto intended to improve the UK's digital economy.<sup>38</sup> These included:

- The rollout of universal broadband and improvement of mobile phone connections.
- Making ultrafast broadband available to nearly all UK premises.
- Investing in infrastructure to improve superfast broadband coverage.

## Commitment on Future Updates

Although the Government did not agree to the publication of a digital agenda, it stated that it would issue an update on the Government's digital objectives.<sup>39</sup> On 29 December 2015, the Department for Culture, Media and Sport committed to the publication of a new Digital Strategy.<sup>40</sup> This, the Department stated, would be published in in early 2016. The Digital

<sup>35</sup> At the time of writing, the current Minister of State for Digital and Culture is Matt Hancock.

<sup>36</sup> HM Government, [The Government's Response to the House of Lords Select Committee Report on Digital Skills](#), July 2015, Cm 9099, p 3.

<sup>37</sup> *ibid.*

<sup>38</sup> *ibid.*, pp 6–7.

<sup>39</sup> *ibid.*, p 6.

<sup>40</sup> Department for Culture, Media and Sport, [UK Digital Strategy: The Next Frontier in our Digital Revolution](#), 29 December 2015.

Strategy would set out the Government's objectives for the next five years, including how it would seek to "unlock digital growth", improve digital infrastructure and digital skills.

#### 4. House of Lords Debate

The debate in the House of Lords on the report took place on 13 June 2016.<sup>41</sup> The Committee's chair, Baroness Morgan of Huyton (Labour), said that it had been the Committee's aim not to produce a long string of recommendations, but rather to focus on the role that it believed Government could play in helping the UK to unlock the potential of changing digital technology.<sup>42</sup> Baroness Morgan argued that, by pursuing a coordinated digital agenda, with the responsibility for it laying in the hands of a cabinet minister, the Government would be able to "pull together work across Whitehall and beyond".<sup>43</sup> She described the approach of the Coalition Government and previous governments as having:

[...] done much that could be applauded, but it was rather piecemeal, often short-term, tending to initiative-itis and not comprehensive.<sup>44</sup>

In regards to the Government's response to the Committee's report, Baroness Morgan welcomed the transfer of the Digital Economy Unit to the sole ownership of the Department for Culture, Media and Sport, although she argued that it was "open to question" whether this placed digital skills and infrastructure policy close enough to the centre of government.<sup>45</sup> She also noted that there had been a number of announcements from the Government relating to improving infrastructure and digital access, which she said would need scrutiny in Parliament in due course.

However, Baroness Morgan described the Government's overall response to the Committee's report as "somewhat patchy".<sup>46</sup> For example, she said that she was concerned as to whether enough attention was being paid by the Government to the issues of cyber security and digital safety. She also noted that the Government had not yet published a full digital strategy. She quoted comments made by the then Minister for Culture and the Digital Economy, Ed Vaizey, in March 2016, indicating he did not know when the strategy was to be published.

Baroness Neville-Rolfe, the then Parliamentary Under Secretary of State at the Department for Business, Innovation and Skills and Department for Culture, Media and Sport, responded on behalf of the Government to the debate.<sup>47</sup> She agreed with the Committee about the importance of digital skills in the UK, stating that digital skills underpinned the UK's productivity and increasingly underpinned social life. She stated that the digital sector accounted for more than 8 percent of exports and for 1.4 million jobs.<sup>48</sup>

Baroness Neville-Rolfe also stated that the Government had taken action to address key recommendations in the report. In terms of the Government's policy coordination, she described the move of the Digital Economy Unit to Department for Culture, Media and Sport

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<sup>41</sup> [HL Hansard, 13 June 2016, cols 1005–49.](#)

<sup>42</sup> [ibid, col 1008.](#)

<sup>43</sup> [ibid.](#)

<sup>44</sup> [ibid.](#)

<sup>45</sup> [ibid, col 1009.](#)

<sup>46</sup> [ibid.](#)

<sup>47</sup> [ibid, cols 1044–9.](#)

<sup>48</sup> [ibid, col 1045.](#)

as creating a “digital skills epicentre”.<sup>49</sup> She also noted that the expanded remit of the Minister for Culture and the Digital Economy now included responsibility for digital inclusion. She also cited the work of the cross-governmental Digital Infrastructure and Inclusion Implementation Taskforce, which was responsible for the delivery of the Government’s digital policy commitments.

In regard to the Government’s forthcoming Digital Strategy, Baroness Neville-Rolfe said that it would set out the Government’s plans for improving digital skills and education. The Government would also set out how it intended to report in the future on its progress in implementing this strategy.<sup>50</sup>

A number of the issues included in the Committee’s report were raised by members of the Committee during the debate. For example, Lord Holmes of Richmond (Conservative) asked the Government how it intended to increase broadband coverage and what measures for improving internet infrastructure were to be included in the Digital Economy Bill.<sup>51</sup> Baroness Neville-Rolfe said that the Digital Economy Bill would introduce measures to implement a broadband universal service obligation by 2020, requiring providers to supply households and businesses with a minimum speed broadband connection.<sup>52</sup>

Members also raised the way in which digital skills were taught in schools. For example, Lord Knight of Weymouth (Labour), argued that schools were currently too focused on the ability of students to “regurgitate and memorise content”, which did not provide them with the tools to re-skill later in life and meet the needs of a changing economy.<sup>53</sup> Lord Janvrin (Crossbench) argued that, because of the speed of changes to the job market as a result of changing digital technology, formal education would probably only prepare people for their first job.<sup>54</sup> He argued that there should therefore be a cultural shift in education to better enable students to learn new skills for themselves. Baroness Neville-Rolfe stated that the Government’s computing curriculum now provided young people with the computational thinking skills needed by employers, and told the House that there had been a rise in the number of pupils taking computer science GCSE.<sup>55</sup>

Members including Lord Aberdare (Crossbench) and Lord Clement-Jones (Liberal Democrat) raised the issue of post-16 skills training and the role of digital apprenticeships. Lord Aberdare called for the creation of more digital apprenticeships, citing evidence to the Committee from techUK, an organisation representing the tech industry in the UK, which stated that there was a shortage of new apprenticeships standards in areas such as cyber security, big data analytics and programming.<sup>56</sup> Lord Lucas (Conservative) argued that more should be done to involve industry in the further education courses.<sup>57</sup> Baroness Neville-Rolfe stated that reforms to technical education would be outlined in the Government’s *Post-16 Skills Plan*, to be published later in 2016.<sup>58</sup> This would include proposals for the reform of apprenticeships, the Minister said, including greater involvement by employers in creating apprenticeships standards.

<sup>49</sup> [HL Hansard, 13 June 2016, col 1045.](#)

<sup>50</sup> [ibid, col 1046.](#)

<sup>51</sup> [ibid, col 1011.](#)

<sup>52</sup> [ibid, col 1046.](#)

<sup>53</sup> [ibid, col 1014.](#)

<sup>54</sup> [ibid, col 1018.](#)

<sup>55</sup> [ibid, col 1047.](#)

<sup>56</sup> [ibid, col 1026.](#)

<sup>57</sup> [ibid, col 1031.](#)

<sup>58</sup> [ibid, col 1047](#); and Department for Business, Innovation and Skills and the Department for Education, [Post-16 Skills Plan](#), July 2016, Cm 9280.

A number of members of the Committee raised the issue of diversity in students studying STEM subjects. For example, Lord Kirkwood of Kirkhope (Liberal Democrat) described the lack of women studying STEM subjects at further and higher education levels as being “scandalous”.<sup>59</sup> Baroness Neville-Rolfe stated that the Government was seeking with industry to better to understand the issues that might be limiting the number of women in digital roles. She also said that it was the Government’s ambition to increase the number of girls’ A-level entries in maths, science and computer science by 20 percent by 2020.<sup>60</sup>

## 5. Further Developments

### House of Commons Science and Technology Committee Report

On 13 June 2016, the House of Commons Science and Technology Committee published a report on digital skills, entitled [Digital Skills Crisis](#).<sup>61</sup> In the report, the Committee argued that the UK faced a digital skills crisis which risked damaging the UK’s productivity and economic competitiveness.<sup>62</sup> The Committee recommended that urgent action was required from industry, schools and universities and from the Government. In terms of Government action, the Committee argued that this would need to include publication of its Digital Strategy “without further delay”.<sup>63</sup>

### Cyber Security Strategy

In November 2016, the Government published its [National Cyber Security Strategy](#).<sup>64</sup> This included a number of objectives which had been recommended by the Digital Skills Committee, including that there should be greater awareness amongst businesses, the public sector and the public about how to defend themselves against cyber threats.<sup>65</sup> The Strategy also stated that it was important that the UK’s cyber security industry be able to access a workforce with the right cyber security skills.<sup>66</sup> On 14 February 2017, the Chancellor of the Exchequer, Philip Hammond, launched the UK’s National Cyber Security Centre, the remit of which included providing cyber security advice to UK organisations, businesses and individuals.<sup>67</sup>

### Industrial Strategy

In January 2017, the Government published a draft industrial strategy which included objectives relating to the UK’s digital infrastructure and the digital skills of the UK workforce.<sup>68</sup> The Government’s green paper, [Building our Industrial Strategy](#), set out the economic factors that it believed would drive the UK’s future economic growth. These addressed some of the issues raised by the Digital Skills Committee, specifically: investment in science and technology; the

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<sup>59</sup> [HL Hansard, 13 June 2016, col 1015](#).

<sup>60</sup> [ibid, col 1048](#).

<sup>61</sup> House of Commons Science and Technology Committee, [Digital Skills Crisis](#), 13 June 2016, HC 270 of session 2016–17.

<sup>62</sup> [ibid](#), p 3.

<sup>63</sup> [ibid](#), p 5.

<sup>64</sup> HM Government, [National Cyber Security Strategy 2016–21](#), 1 November 2016.

<sup>65</sup> [ibid](#), p 9.

<sup>66</sup> [ibid](#).

<sup>67</sup> HM Treasury, ‘[Chancellor’s Speech at the National Cyber Security Centre Opening](#)’, 14 February 2017; and National Cyber Security Centre, ‘[About Us](#)’, accessed 15 February 2017.

<sup>68</sup> Department for Business, Energy and Industrial Strategy, ‘[Open Consultation: Building our Industrial Strategy](#)’, 23 January 2017.

development of the digital skills of the UK workforce; and the improvement of the UK's digital infrastructure.<sup>69</sup>

The chair of the House of Commons Science and Technology Committee, Stephen Metcalfe, responded to the publication of the green paper by welcoming the inclusion of digital skills and investment in science in the strategy.<sup>70</sup> However, he repeated his call on the Government to publish its digital strategy, arguing that Ministers needed to “get their digital act together”.<sup>71</sup>

## Digital Economy Bill

In the 2016–17 session, the Government introduced a number of bills including provisions which address some of the issues raised by the House of Lords Digital Skills Committee.

Part I of the [Digital Economy Bill](#) includes provisions to create a broadband universal service obligation, the intention of which is to entitle consumers to minimum speed broadband from their provider. The Bill also provides for free training for adults in basic digital skills. Clause 87 of the Bill would create a statutory duty on the Secretary of State for Education for basic digital skills to be publicly funded, and offered to adults over 19 in England free of charge.<sup>72</sup> At second reading of the Bill in the House of Lords, the Government stated that this “reflects the Government’s belief that digital skills are now as important as numeracy and literacy”.<sup>73</sup>

## Technical and Further Education

The [Technical and Further Education Bill](#) implements the recommendations of the Government’s [Post-16 Skills Plan](#), to reform further education and apprenticeships in England. The Bill includes provisions to expand the remit of the apprenticeships regulator, the Institute for Apprenticeships, to include further education standards. The Institute for Apprenticeships would also be renamed the Institute for Apprenticeships and Technical Education.

Further to the Digital Skills Committee’s recommendation that further education in digital skills be more closely aligned with the needs of employers, the Institute for Apprenticeships and Technical Education would be required to establish representative boards from industry, as well as further education students and apprentices, to help form new standards.<sup>74</sup>

The Government has not undertaken a review of digital skills in further education and apprenticeships in the form recommended by the Digital Skills Committee.<sup>75</sup> However, subsequent to the publication of the Committee’s report, the Government commissioned two reviews of the way in which digital skills are taught in the UK: the Skills Funding Agency review of publicly funded digital skills qualifications; and the independent review of computer sciences

<sup>69</sup> Department for Business, Energy and Industrial Strategy, [Building our Industrial Strategy: Green Paper](#), 23 January 2017, p 11.

<sup>70</sup> House of Commons Science and Technology Committee, [‘Chair Responds to Industrial Strategy Proposals’](#), 23 January 2017.

<sup>71</sup> *ibid.*

<sup>72</sup> [Explanatory Notes](#), p 47. Further Information on the Digital Economy Bill is provided in the House of Lords Library briefing [Digital Economy Bill \(HL Bill 80 of 2016–17\)](#) (8 December 2016).

<sup>73</sup> [HL Hansard](#), 13 December 2016, col 1227.

<sup>74</sup> Further Information on the Technical and Further Education Bill is provided in the House of Lords Library briefing [Technical and Further Education Bill \(HL Bill 88 of 2016–17\)](#) (19 January 2017).

<sup>75</sup> House of Lords Digital Skills Committee, [Make or Break: The UK’s Digital Future](#), 17 February 2015, HL Paper 111 of session 2014–15, p 96.

degree accreditation and graduate employability, led by the University of Southampton's Professor of Artificial Intelligence, Sir Nigel Shadbolt.<sup>76</sup>

## Higher Education and Research

The Digital Skills Committee recommended in its report that there should be a review of UK research and development.<sup>77</sup> In December 2014, the Government commissioned an independent review of UK research councils.<sup>78</sup> The review, conducted by Sir Paul Nurse, concluded that existing research councils should become part of a single organisation, with a single accounting officer responsible for delivering a cross-council research and development strategy.<sup>79</sup> The Government's [Higher Education and Research Bill](#) includes provisions to establish a new single research and innovation authority for the UK, to be called UK Research and Innovation.<sup>80</sup>

The Higher Education and Research Bill also addresses a second issue which had been raised by the Digital Skills Committee: the involvement of the employers in the way in which higher education is provided.<sup>81</sup> The Bill would establish a new regulator for higher education for England, the Office for Students.<sup>82</sup> The Office for Students would be required in the Bill to consult with employers, and other stakeholders, regarding what information is collected and published on higher education provision in England.<sup>83</sup> The Office for Students would also be required to take account of the views of employers, as well as higher education providers, graduates and students, when providing oversight of the quality assessment process for English higher education.<sup>84</sup>

## 6. Digital Strategy

The Government published its [Digital Strategy](#) on 1 March 2017.<sup>85</sup> In her foreword, the Secretary of State for Culture Media and Sport, Karen Bradley, described its objectives as follows:

[The Digital Strategy] will boost our world-leading digital sectors and overcome barriers to growth and innovation, creating more of the high-skilled, high-paid jobs of the future. It will deliver the first-class digital infrastructure and advanced skills base that businesses across the country need to be able to take advantage of digital tools. And it will close the digital divide—to ensure that everyone is able to access and use the digital services

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<sup>76</sup> Skills Funding Agency, [Review of Publicly Funded Digital Skills Qualifications](#), 9 February 2016; and Department for Business, Innovation and Skills and Higher Education Funding Council for England, [Shadbolt Review of Computer Sciences Degree Accreditation and Graduate Employability](#), 16 May 2016.

<sup>77</sup> House of Lords Digital Skills Committee, [Make or Break: The UK's Digital Future](#), 17 February 2015, HL Paper 111 of session 2014–15, p 16.

<sup>78</sup> Department for Business, Innovation and Skills, '[Nurse Review of Research Councils](#)', 19 November 2015.

<sup>79</sup> Sir Paul Nurse, [Ensuring a Successful UK Research Endeavour: A Review of the UK Research Councils](#), November 2015, p 26.

<sup>80</sup> [Explanatory Notes](#), p 39.

<sup>81</sup> House of Lords Digital Skills Committee, [Make or Break: The UK's Digital Future](#), 17 February 2015, HL Paper 111 of session 2014–15.

<sup>82</sup> [Explanatory Notes](#), p 6.

<sup>83</sup> *ibid*, p 29.

<sup>84</sup> *ibid*, p 51.

<sup>85</sup> Department for Culture, Media and Sport, '[UK Digital Strategy: Ministerial Foreword](#)', 1 March 2017.

that could help them manage their lives, progress at work, improve their health and wellbeing, and connect to friends and family.<sup>86</sup>

The Digital Strategy included the following strands:

- **Digital Infrastructure:** The Government stated that it would complete the roll-out of 4G mobile coverage and superfast broadband by 2020 and implement the Universal Service Obligation. It would also invest over £1 billion to help develop and implement future advances in digital infrastructure.
- **Digital Skills:** The Government said that it would ensure that adults in England who lacked digital skills would be able to access basic digital skills training for free. It would also support young people to develop specialist digital skills through the national curriculum and the National Citizen Service.

The Government would also establish a new Digital Skills Partnership to support people trying to access digitally-focused jobs. This Partnership would bring together technology companies, local businesses, local government, charities and other organisations.

- **Supporting New Digital Businesses:** The Government said that it would support new digital businesses by making changes to existing regulations with the intention of helping to support innovation. It would also increase investment in research and development by £4.7 billion by 2020/21, as previously announced in the 2016 Autumn Statement.
- **Supporting Businesses Outside of the Digital Sector:** The Government stated that it would support existing businesses to improve productivity by adopting new digital technologies. This would be done in part through the creation of the Productivity Council, previously announced in the 2016 Autumn Statement. The role of the Productivity Council would be to support existing initiatives intended to improve productivity, including those involving the use of digital technology.
- **Cyber Safety and Security:** The Government stated that it would support the National Cyber Security Centre in providing expertise to companies on improving cyber security. It would also provide expertise from GCHQ to improve the security of the internet service providers and support the training of new cyber security professionals through adult reskilling, apprenticeships and a new national after-school programme. In terms of online safety, the Government would support companies providing family-friendly filters for broadband customers and require age verification controls for access to online pornographic material.
- **Digital Technology and Public Services:** The Government stated that it would continue to use digital technology to improve public services. For example, it would continue to use the GOV.UK website as a platform for the provision of government services and information. It would also support new initiatives such as the trial of digital signalling technology on the rail network and

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<sup>86</sup> Department for Culture, Media and Sport, '[UK Digital Strategy: Ministerial Foreword](#)', 1 March 2017.

the use of biometric applications by the police to match figure print and DNA data.

- **Data and the UK Economy:** The Government said that it would seek to ensure public confidence in the security of their data and enable businesses to use data effectively. To this end, the Government committed to the implementation of a General Data Protection Regulation by May 2018.<sup>87</sup>

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<sup>87</sup> Department for Culture, Media and Sport, '[UK Digital Strategy: Executive Summary](#)', 1 March 2017.

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