



House of Commons

Business, Innovation and Skills  
Committee

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# **The Digital Economy**

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**Second Report of Session 2016–17**





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## Second Report of Session 2016–17

*Report, together with formal minutes  
relating to the report*

*Ordered by the House of Commons  
to be printed 12 July 2016*

## The Business, Innovation and Skills Committee

The Business, Innovation and Skills Committee is appointed by the House of Commons to examine the expenditure, administration, and policy of the Department for Business, Innovation and Skills.

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[Paul Blomfield MP](#) (*Labour, Sheffield Central*)

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### Powers

The Committee is one of the departmental select committees, the powers of which are set out in House of Commons Standing Orders, principally in SO No 152. These are available on the internet via [www.parliament.uk](http://www.parliament.uk).

### Publication

Committee reports are published on the Committee's website at [www.parliament.uk/bis](http://www.parliament.uk/bis) and in print by Order of the House.

Evidence relating to this report is published on the [inquiry publications page](#) of the Committee's website.

### Committee staff

The current staff of the Committee are Chris Shaw (Clerk), Martin Adams (Second Clerk), Josephine Willows (Senior Committee Specialist), Duma Langton (Committee Specialist), James McQuade (Senior Committee Assistant), Jonathan Olivier Wright, (Committee Assistant) and Gary Calder (Media Officer).

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## Summary

The digital economy in the United Kingdom is a success story: the British economy has the highest percentage of gross domestic product attributed to the digital economy of all European nations; UK digital industries grew two and a half times as fast as the economy as a whole between 2003 and 2013; and the United Kingdom has the highest percentage of individual internet usage of any G7 economy. We recognise and endorse the Government's support of the digital economy and we look forward to its Digital Strategy, even though this is now due to be published in the autumn of 2016, much later than expected.

Inevitably, there are difficulties measuring the digital economy because it is hard to define precisely: most businesses have some sort of digital presence, even if they do not trade or operate exclusively online. However, GDP figures do not take account of all the economic benefits of the digital economy, such as time saved, increased choice and lower cost of products. The Government should explore ways of collecting real-time data and of applying standard terminology and coding of activity, in order to measure accurately the digital contribution to levels of UK productivity, and to reflect this in policy making.

We recommend that the Government provides greater clarity on the regulation of the digital economy. The Department for Business, Innovation and Skills must be at the forefront of the regulation debate. It should explore new regulatory opportunities that exist within the digital framework and seek to ensure that appropriate regulations are in place to support and encourage innovative uses of technology, while protecting consumers and not disproportionately disadvantaging non-digital industries.

A more collaborative approach to regulation, involving users, should be explored by the Government. Digital platforms (the software or hardware of a site) could themselves become key players in the regulatory framework, required to ensure that users are complying with current regulations, and that workers using the platforms have reasonable employment conditions and are not vulnerable to exploitation.

The Government must outline what measures it is taking in the immediate future to support policies connected with the digital economy, in the light of the referendum on the UK's membership of the European Union, and must ensure that the country's digital economy remains successful and innovative.

# 1 Introduction

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1. Every day, people, businesses, organisations, communities and the Government use digital technology to make decisions, to make goods, and to deliver services more efficiently and more quickly. The digital economy refers to both the digital access of goods and services, and the use of digital technology to help businesses. Digital economy is a term that is often used to cover this activity, but is hard to define. The Organisation for Economic Co-operation and Development (OECD) defines the Information and communications technology (ICT) sector as “a combination of manufacturing and service industries that capture, transmit and display data and information electronically”.<sup>1</sup> But this form of classification excludes much of digital business.

2. Research by the National Institute for Economic and Social Research (NIESR) showed that the digital economy is larger than conventional estimates show, with almost 270,000 actively digital companies in the UK, or 14.4% of all companies as of August 2012, and 11% of all jobs. This compares with 167,000 companies—10% of all companies—when the Government’s conventional definitions, covered in Standard Industrial Classification (SIC) codes are used.<sup>2</sup>

3. Technology is going to revolutionise, or is already revolutionising, business, transforming virtually all aspects of the economy and society. Through the course of our inquiry, we have received evidence about various aspects of the digital economy, including: digital aspects of disruptive technology, an innovation that disrupts an existing market; the sharing economy, a model that relies on the sharing of goods, intellectual resources, labour, and property using a digital platform; and flourishing digital sectors, including Fintech (financial services whose business model relies on software and an algorithm-based approach to assessing risk) and the gaming industry.

4. The United Kingdom is one of the leading digital nations in the world, and its economy has the highest percentage of GDP involved in the digital economy of all European nations.<sup>3</sup> UK digital industries grew two and a half times as fast as the whole economy between 2003 and 2013 and comprised 7.5%, or £113 billion of the UK’s gross value added (GVA) as of 2013.<sup>4</sup> The estimated turnover of digital tech industries in 2014 was £161 billion, and there are 1.56 million jobs in the digital tech economy, of which 41% are in traditionally non-digital industries. Furthermore, the average advertised salary in digital jobs is just under £50,000, 36% higher than the national average.<sup>5</sup>

5. In parallel, as of 2014, the United Kingdom had the highest percentage of individual usage of the internet of any G7 economy:

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1 The Office for National Statistics (ONS), [What defines the Digital Sector?](#), October 2015

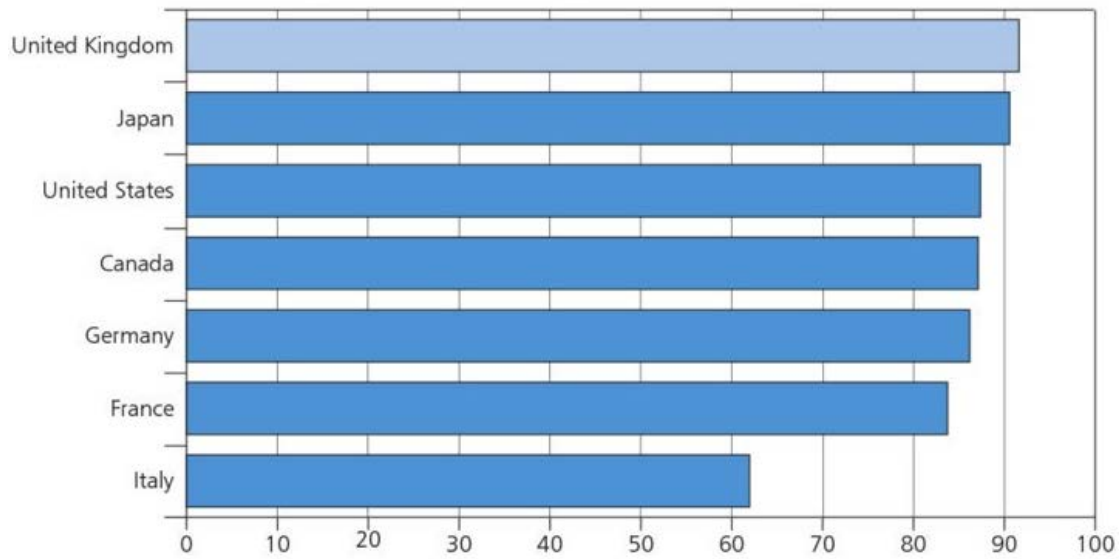
2 Jonathan Portes, “[The UK’s digital economy](#)”, September 2015

3 Q 344, [Herb Kim]

4 [Joint written evidence from BIS and CMS](#)

5 [techcityuk](#)



**G7 percentage of individuals using the internet across the G7**

Source: International telecommunication Union, Percentage of Individuals using the Internet, 2014.

6. The Department for Culture Media and Sports (DCMS) supports Tech City UK, set up in 2010, which helps to increase the growth of digital businesses across the United Kingdom, focussing on digital skills, capital investment, international development and leadership.<sup>6</sup> The DCMS also supports Tech North, which runs programmes for digital entrepreneurs and investment in the North of England<sup>7</sup>. The Department for Business Innovation and Skills sponsors Innovate UK, a non-departmental public body, which supports small high-growth potential businesses to grow domestically and internationally.<sup>8</sup>

7. The United Kingdom is successful in digital terms, not only in London, but in other parts of the country, including Bristol and Bath, Manchester, Reading, Leeds, Newcastle and Gateshead, and the Government supports digital start-ups through growth hubs (local public/private sector partnerships, led by the Local Enterprise Partnerships (LEPs)). At the last spending review, the Government also invested about £11 million in three technology clusters in Sheffield, Leeds and Manchester, and has previously encouraged tech clusters—a group of tech start-ups geographically close to one another—in Rotherham, Hull, Liverpool, Liverpool, Newcastle, Durham, and Sunderland.

8. Our inquiry into the digital economy covered many issues, including businesses wanting to embrace digital advances, digital businesses looking to expand, the rise of disruptive digital technologies, digital issues surrounding Intellectual Property, and digital skills. There is a digital element to most areas of BIS policy and, indeed, most aspects of the economy, and our inquiry has covered issues pertinent to past, present and planned future BIS Committee inquiries, including:

6 [techcityuk](#)

7 [technorthq](#)

8 [innovate-uk](#)

- our previous inquiry into Productivity (in relation to the need to measure aspects of the digital economy, to ensure accurate productivity statistics, and the need to increase productivity, by businesses embracing digital advances);
- our current inquiry into the Northern Powerhouse and the Midlands Engine (in relation to the work of Tech North, of LEPs, and of the devolved governments in developing digital technology);
- our Joint work with the Education Committee (on the need for businesses to employ a digitally-skilled workforce and to adapt to technology changes in software); and
- our future inquiry on the changing nature of employment (in relation to the increasing number of self-employed workers in disruptive technology, including the sharing economy, and the accompanying financial and economic implications of such an increase).

9. During our inquiry, we heard from: small businesses; organisations involved in digital skills; representatives of disruptive technologies—including Hassle, Uber, Airbnb, and three authors of reports focussing on the sharing economy; publishing and newspaper representatives, and an ad blocker organisation; copyright and Intellectual Property representatives, including the Parliamentary Under-Secretary of State and Minister for Intellectual Property, in BIS; financial representatives, including a big-data company, focusing on the financial services industry, a tech company providing small business loans online to SMEs, and an online marketplace that helps small businesses get connected to the finance they need; digital organisations in the regions; the gaming industry; and the retail industry, represented by the British Retail Consortium and Amazon.

10. We held seven oral evidence sessions, and made two visits: to Innovation Birmingham Campus and the Google Garage at the Library of Birmingham; and to Campus London. We would like to thank everyone involved in organising and participating in the visits, which gave us an invaluable insight into current digital initiatives, and to all those who submitted evidence to us.

## 2 Measuring the digital economy

11. The digital economy is not a conventionally marketed economic activity, and GDP figures do not take account of economic benefits of the digital economy, such as time saved, increased choice, and lower cost of products. The Standard Industrial Classification (SIC) Codes also omit companies in business and domestic software, architectural activities, engineering, and engineering-related scientific and technical consulting.<sup>9</sup> The Office for National Statistics said that “development and innovations in the digital arena mean more and more businesses are finding ways to become digital, and this in turn makes measuring the digital economy problematic”.<sup>10</sup> Diane Coyle, Professor of Economics, Manchester University and fellow of the Office for National Statistics, told us that if the sharing economy cannot be measured, that has implications for other areas connected with the digital economic activity, such as regulation, taxation, and work benefits. She told us that “we really need to understand what people are doing so that we can help them do it more and grow this sector of the economy more”.<sup>11</sup>

12. The gaming industry is a sector within the digital economy not properly represented in official data. Jo Twist, CEO of Ukie (UK Interactive Entertainment), told us that the gaming industry “created no jobs and no economic value”, according to official statistics.<sup>12</sup> Yet the gaming industry is the sixth largest consumer market in the world and globally estimated to be worth over £80 billion by next year.<sup>13</sup> According to Jo Twist, as soon as the gaming industry has its own Standard Industrial Classification (SIC) codes that represents the gaming industry as a digital business, “we can shout loud and proud about that message”.<sup>14</sup>

**13. *Good policy making, tax policy and the allocation of resources require high-quality data. This does not exist at present in the digital economy, and policy making cannot therefore be reliably expected to support as much as possible the digital economy, one of the UK’s key drivers of improved productivity. The Government’s Digital Strategy should be informed by, and policy measures should be driven by, reliable data. We recognise the difficulty of measuring the digital economy, but the Government should look to the work of the Office of National Statistics, and explore ways of collecting real-time data in the digital economy, and ensure that established Standard Industrial Classification (SIC) codes are agreed and used, in different parts of the digital economy.***

9 Jonathan Portes, *The UK’s digital economy*, September 2015

10 ONS, *What defines the Digital Sector?* October 2015.

11 Q 377

12 Q 413. The document Jo Twist was referring to was commissioned by Creative Scotland, and entitled “Economic Contribution Study: an approach to the economic assessment of the arts and creative industries in Scotland”, published in June 2012. It quoted official statistics from 2010, and stated “due to rounding of the gross value added (GVA) results, Computer Games is recorded as zero [...] but the sector does not record GVA of less than £10 million”.

13 Q 405. Chris van der Kuyl told us that the gaming industry was not the sixth largest consumer market in the world, but the third: “If one looks at the top ten console games in the world, we are not sixth; we are third, I think, if you look at actual sales”.

14 Q 413

### 3 The Government's digital strategy

14. On 29 December 2015, the Minister of State for Culture and the Digital Economy, Ed Vaizey MP, announced a consultation on the Government's Digital Strategy. The announcement stated that, in early 2016, the Government would be publishing its Digital Strategy, which would be an overview of the Government's digital objectives for the next five years: "Working with colleagues across government it will set the agenda for the rest of the Parliament on digital, so that the UK continues to lead the way". The consultation had no terms of reference, simply the following request, "so challenge us—push us to do more. Let's show the rest of the world how it's done", with the deadline of 19 January 2016. However, the Minister told us in March 2016 that the strategy would not be published until after June 2016, following the European Union referendum.

15. In oral evidence, the Minister indicated what might be included in the digital strategy: it will have sections linking the digital economy to different policy areas including health, transport, and energy.<sup>15</sup> It will also cover the infrastructure, the tech economy, digital skills, and the digital government, and "will give a good overview of what the Government are doing in terms of digital".<sup>16</sup> While the Government is supporting the digital economy, including supporting the work of Innovate UK, Tech City, Tech North and the digital hubs across the country, the Digital Strategy needs to unify and build on this work.

16. *We look forward to the publication of the Government's Digital Strategy, in the summer of 2016 (six months later than expected), which should explain how the Government will build on its success. We regret this delay, and call on the Government to explain the reasons for it, and why they initiated a three-week consultation over the Christmas break on what the Government should include in the strategy.*

17. *While the Government is supporting the digital economy, including support of Innovate UK, Tech City and Tech North, there is no overall strategy for this support. We hope that the digital strategy will provide an overview of present and future Government policy on the digital economy, which will be published as soon as possible, and in its reply the Government must provide us with an update of any changes made to the strategy since it was originally written.*

18. *The Government must also explain how the Digital Strategy will be affected by the referendum result. It should also set out in its reply and in the Digital Strategy a list of specific, current EU negotiations relating to the digital economy.*

19. *At the forefront of the issues explained, the Digital Strategy must address head on the status of digitally-skilled workers from the European Union who currently work in the UK. The digital sector relies on skilled workforce from the European Union, and those individuals' rights to remain in the country must be addressed, and at the earliest opportunity.*

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<sup>15</sup> Q 511

<sup>16</sup> Q 511 and Q 486

## 4 Business take-up of technology and digital skills

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### Businesses and the digital economy

20. Although the UK is leading the world in e-commerce, with the online retail market accounting for 8.3% of GDP in 2010, there is a digital “skills gap”: up to 12.6 million of the adult UK population do not have basic digital skills, with an estimated 5.8 million people never having used the internet. This gap in digital skills is costing the UK economy an estimated £63 billion a year in lost additional GDP,<sup>17</sup> and 93% of companies say that it is already affecting operations and recruitment.<sup>18</sup> If the entire UK population were trained in basic digital skills at a cost of £1.31 billion, over a 10-year period, the new value would be £14.3 billion, a better than 1:10 benefit ratio.<sup>19</sup>

21. We do not want to repeat the detailed analysis of digital skills made by other Committees, including the Science and Technology Committee<sup>20</sup> and the House of Lords Digital Skills Committee<sup>21</sup>. They have reported that the UK faces a digital skills crisis, from schools to the workplace.<sup>22</sup> We agree with them and call upon the Government to recognise the urgency and act accordingly. We want to emphasise the adverse effect that a workforce not skilled in digital technology has on businesses. There is, according to a Government-commissioned study by Ecorys UK, a direct correlation between market competitiveness and the uptake and use of digital technology in the workplace.<sup>23</sup>

22. It is widely accepted that businesses, both non-digital and digital, can make better use of digital technology to improve their performance. Baroness Neville-Rolfe, Minister for Intellectual Property, highlighted the great opportunity of the internet to provide “new sources of customers, new locations where you can sell and new opportunities to do things in the digital world”.<sup>24</sup> However, the CBI Report, “Embracing Digital in Every Sector” highlighted the disparity between the availability of technology and the adoption of technology by businesses, with UK ranking 5th out of 140 on the availability of technology, but only 14th out of 140 for the adoption of technology at company level.<sup>25</sup> The Minister for the Digital Economy acknowledged the fact that there are still too many small businesses that are not online or that are not taking full advantage of the benefits of trading online.<sup>26</sup>

23. One requirement for businesses in the digital economy is access to a skilled workforce that can embrace digital advances, which bring “a new and reliable way to connect with customers, suppliers and employees”, according to Mike Cherry, the then Policy Director

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17 Science and Technology Committee, [Digital skills crisis](#), June 2016, summary.

18 Q 151, quoting written evidence from techUK, Science and Technology Select Committee’s inquiry into the Digital Skills Gap, 8 March 2016.

19 Q 140, Rachel Neaman, CE of Go ON UK, Science and Technology Committee’s inquiry into the Digital Skills Gap, 8 March 2016.

20 Science and Technology Committee, [Digital skills crisis](#), June 2016.

21 [House of Lords Select Committee on Digital Skills](#), February 2015; Science and Technology Committee inquiry on [Digital Skills](#).

22 Science and Technology Committee, [Digital skills crisis](#), June 2016, summary.

23 [Digital skills for the UK economy](#), Ecorys UK, January 2016 (for BIS and CMS).

24 Q 227

25 CBI, [Embracing digital in every sector](#), April 2016.

26 Q 483

of the Federation of Small Businesses.<sup>27</sup> However, there is a shortfall of digitally-skilled workers, including animators in visual effects and 2D/3D computer animation for the film, television and video games sector, and physical scientists working in radiology, for example work on magnetic resonance imaging.<sup>28</sup>

24. We did hear from witnesses outside London who have taken a different approach to the digital skills deficit. John Connolly, MD of the Centre for Digital Innovation, Humber LEP, told us of the collaborative work occurring in Humberside, and the opening of an innovation centre two and half years ago, which has grown to about 200 members.<sup>29</sup> The innovation centre helps start-up digital businesses to grow, and connects technical experts with creators of digital disruptor businesses, thereby closing the digital skills gap.<sup>30</sup> Also, Gareth Mann, CEO of Digital Contact—a data company focusing on the financial services industry—told us that there would always be a digital skills shortage where there was constant evolution and innovation. He explained that his solution to attract the brightest and best was to move the business outside London, to give a better work-life balance to staff.<sup>31</sup>

25. There is an urgent need for clarity about the issue of skills, post referendum. Many firms are currently putting recruitment on hold until there is more certainty in the country, and the Government needs to provide clarity in this vital area, otherwise skills and talent will be lost elsewhere, such as to Berlin or Frankfurt.

**26. *While we recognise that the provision of digital skills may never keep pace with the speed of innovation, there must be a bedrock of core skills that people need to acquire, so that they can build on, extend and then adapt to meet the needs of changing technology. We have not replicated the work of other Committees on the dearth of digitally-skilled workers, such as the Science and Technology Select Committee and the House of Lords Select Committee on Digital Skills, both of whom highlighted the shortage of workers with IT skills. However, both Reports were published before the result of the referendum, and the Government needs to state in its reply how tech firms that employ EU nationals will be affected in the short, medium and long term. The Government needs to provide clarity surrounding skills, post referendum, otherwise skills and talent will be lost to other countries.***

## Showcasing the success of digital businesses

27. The United Kingdom is successful in tech start-up businesses. There is much for the UK to be proud of in the prevalence of tech start-ups. The Minister told us that the UK is one of the prime destinations, if not the prime destination in Europe, to set up a tech business.<sup>32</sup> We heard from specific sectors, including the financial, retail and gaming industry, about digital innovations. For example, Chris Taylor, from Shropshire Council, told us about digital advances in the farming industry, using automated milking parlours, and manufacturing sectors across Telford, making use of the internet of things and machine-to-machine operations, and companies developing 3D technology across

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27 Q 3

28 [Tier 2 Shortage Occupation List](#) - Government approved version - valid from 6 April 2013.

29 Q 10

30 Q 10

31 Q 329

32 Q 480

Shropshire.<sup>33</sup> There are also a high number of unicorns based in the UK. GP Bullhound research for London Technology Week reported that 17 of the 40 European tech companies classified as unicorns—tech companies valued at \$1 billion or more—started in the UK<sup>34</sup>. In other words, 43% of all European Unicorns were based in the UK.

28. The strength of the financial services industry in the UK is in part due to the role of digital Fintech. We heard from Russell Gould, COO of ezbob Ltd, that his financial business can provide business loans within 15 minutes, “the evolution of technology that has allowed us to harness those bits of technology together to create the ability to make such rapid decisions, saving small businesses days and hours in valuable time”.<sup>35</sup>

29. The United Kingdom is a world leader in Fintech, with the sector estimated to be worth £20 billion in annual revenues. According to TechCity UK’s “Tech Nation 2016” paper, published in February 2016, over half of European Fintech unicorns are UK based, including TransferWise, Funding Circle and GoCardless.<sup>36</sup> This position is now at risk as firms will want to be part of the single market of financial regulation. The Government needs to set out with urgency how it will address this, and avoid our strengths in fintech being eroded.

30. We also heard from Chris van der Kuyl, Chairman of 4J Studios, about the gaming industry, and the fact that Grand Theft Auto, “now effectively bigger than all the retail sales in the music industry put together. Grand Theft Auto—created and still to this day developed in the United Kingdom—is possibly one of the biggest franchises. Our own company, 4J, is fortunate enough to work with Microsoft and a Swedish company called Mojang on Minecraft for all games consoles. Genuinely some of the biggest entertainment products in the world are created in this industry”.<sup>37</sup> There is therefore much to be proud of in relation to digital sectors in the United Kingdom, and the Government is supporting such sectors well, but its success is not being recognised due to the faulty ways of measuring the gaming industry, as mentioned in Chapter 2.

**31. The UK is one of the prime destinations in Europe to set up a tech business. The gaming industry does not have the recognition it deserves as an innovator and, in some cases, a world leader. It is making a larger contribution to the economy that is not picked up because of the way in which the gaming industry is measured.**

***32. The United Kingdom is a world leader in fintech, with the sector estimated to be worth £20 billion in annual revenues. This position could now be at risk as firms will want to be part of the single market of financial regulation. The Government needs to set out with urgency how it will address this, to avoid our strengths in fintech being eroded.***

## Apprenticeships

33. Our joint work with the Education Committee currently includes an inquiry into apprenticeships, which our digital economy inquiry has complemented. We heard examples of how the digital sector uses apprenticeships. For example, the Tech Partnership is a network of employers (including large and small tech businesses, and IT professionals)

33 Q 343

34 Written evidence, [Innovate UK](#), TDE 14

35 Q 321

36 [Tech Nation 2016: transforming UK industries](#), Tech City UK, February 2016

37 Q 406

that work in collaboration with other stakeholders to address skills issues, such as skills shortages existing in the digital economy.<sup>38</sup> We learnt of Tech Partnership’s work in creating a degree apprenticeship, which has been designed by employers, working with higher education, and with the financial backing of the Government. A cohort of 300 apprentices will start the degree apprenticeship in September.<sup>39</sup> Dean Cassar, Director of Operations at Tech Partnership, told us of the flexibility of apprenticeships, providing digital skills that are relevant at different stages of people’s careers.<sup>40</sup>

### **Apprenticeship levy**

34. There are concerns in the digital sector about the use of apprenticeships in certain digital businesses, and the implication of the new levy for those businesses. The levy will be payable on annual pay bills of more than £3million, at a rate of 0.5% of an employer’s pay bill.<sup>41</sup> The Government will give each business an allowance of £15,000, and each will have a Digital Apprenticeship Service account, which will fund the costs of apprentices’ training, assessment and certification. The training must meet an approved standard or framework and the individual must meet the apprentice eligibility framework.

35. Some digital businesses need a small group of highly-skilled people from the start, and we were told that they would be hindered financially by the apprenticeship levy. Jo Twist told the Committee that the creative industry, including the gaming industry, need “people who can hit the ground running”.<sup>42</sup> While being supportive of the Skills Investment Fund,<sup>43</sup> and the ability to bring new entrants into the industry, Jo Twist told us that her industry does not yet have the capacity or the funding to develop apprenticeships within the industry, but “as an industry, we have estimated we are going to be paying £2 million into that levy pot”.<sup>44</sup>

36. The apprenticeship levy requires all employers operating in the UK, with a pay bill over £3 million a year, to make an investment in apprenticeships. While we appreciate the fact that many digital businesses are composed of a few highly-skilled people, we urge those small digital businesses to study the guidance on how the apprenticeship levy will work, and find ways of accessing money paid under the apprenticeship levy to support the furthering of digital skills for apprentices.

**37. We are currently running a joint inquiry on apprenticeships with the Education Committee, and therefore will not comment on substantive aspects of the apprenticeship levy in this Report. However, small businesses (including digital businesses) employing highly-skilled workers may not have the capacity to employ apprentices, and therefore the current apprenticeship levy requirements could hinder those businesses financially. The Government needs to address how differing business workforce models, such as tech firms, with a small number of highly-skilled workers, are not compromised through the operation of the apprenticeship levy.**

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38 Q 44 [Dean Cassar]

39 Q 62 [Dean Cassar]

40 Q 62

41 [Apprenticeship levy: how it will work](#), Department for Business Innovation and Skills, April 2016

42 Q 419

43 Working in partnership with industry and informed by research, Creative Skillset directs collective investment through the Skills Investment Fund to create new and innovative training in skills to ensure growth in the UK’s Creative Industries.

44 Q 419



## 5 Regulation and compliance

38. Successful innovation can lead to the introduction of new technology which can disrupt traditional ways of doing business. This, in turn, can give innovators a competitive edge, creating wealth and employment, and will also help the Government to achieve its productivity targets. As with the invention of the steam engine and the development of the internet, innovation has happened through history, disrupting business and society in its wake. Disruption can require a review of regulation and compliance. This can include a debate over different types of regulation: whether there should be top-down regulation, centralised regulation, self-regulation, or indeed any regulation at all.

39. In this chapter, we explore the way in which digital advances have pushed at the limits of current regulations, and the ways in which regulation can be used as an enabler, allowing businesses to grow and increase productivity. How the Government tackles regulation and compliance is important because of the increasing number of disruptive businesses appearing, and the likely future impact of technological change, which will inevitably test regulatory frameworks further.

### The challenge from ‘disruptive’ technologies

40. Disruptive technologies ‘disrupt’ the accepted means of delivering a service, which in turn bring tension between disruptors and those businesses being disrupted. We heard from businesses that could be described as disruptors, such as Hassle, Uber, Airbnb and Amazon. Uber, described as “a software company, a smartphone app, and licensed as a private hire operator”,<sup>45</sup> disrupts the London Hackney carriage model and the existing private hire operators. Hassle, an on-demand cleaning platform, is a technology-disrupting third-party agency, using technology to link cleaners directly with customers.<sup>46</sup> Airbnb is a global online travel marketplace, but its representative, Patrick Robinson, denied it was a disruptor, as it was not disrupting existing models, but instead creating competition and a new kind of experience for the tourist; the ability to stay in someone’s home is not the same as staying in a hotel.<sup>47</sup>

41. The tension between so-called disruptors and disrruptees is keenly felt when it comes to regulation. Often digital disruptor businesses do not have to follow the same regulation and compliance as incumbent businesses that are being disrupted, which can be seen as giving the new disruptor an unfair competitive advantage. For example, Airbnb providers are not bound by health and safety regulations of hotels. Ubi Ibrahim, CE of the British Hospitality Association, spoke of platforms’ ability to “facilitate those who are operating as pseudo-hotels, for example, in all but name to effectively go about being able to provide services without complying with law and safety for consumers”.<sup>48</sup>

42. However, given the accelerating pace of technological change, current disruptive technologies can themselves be disrupted. For example, platforms such as Uber or Airbnb require intermediaries, who charge (often high) processing fees, but blockchain-based technology platforms link the provider and consumer direct with each other, thereby making the intermediary redundant. For example, we heard from Brhmie Balarim that

45 Q 69 [Andrew Byrne]

46 Q 99 [Alex Depledge]

47 Q 247 and Q 248

48 Q 250

La’Zooz is being seen as a competitor to Uber, and Loconomics is emerging as a competitor to TaskRabbit.<sup>49</sup> **The fact that disruptive technologies are inevitably evolving, and the pace of change is accelerating, means that it is crucial that public policy is ‘future-proofed’ as far as possible, to ensure that the need for constant regulatory reform is minimised.**

## Regulation

43. Regulation should be based on agreed principles, and also flexible enough to adjust to disruption. It should, in our view, put the interests—in terms of quality, choice, cost and safety—of the consumer first, although not at the expense of employment rights. It should encourage innovation, new and existing players, choice and competition, in different sectors of the economy, regardless of the means of delivery or the infrastructure.

44. There is a risk that regulation always lags behind technology and is seen as being in “catch-up” mode. It should not seek to inhibit innovation or to protect business models that might be challenged by disruptive technologies or by digital business models. Indeed, it would be ludicrous to try to hold back the tide of technology. Not only is this impossible, it runs the risk of undermining this country’s future competitiveness and wealth-creation capacity. Similarly, it must ensure that the legal avoidance of regulation is not the sole or primary source of competitive advantage; regulation must ensure fairness, to ensure that new disruptive businesses are not unfairly or unreasonably excluded from certain safeguards such as health and safety regulations.

45. The Government has, in general, taken a hands-off approach to regulation, wanting to stimulate growth of the digital economy. For example, the Government’s efforts to stimulate and support innovation—announced in March 2016—include Innovate UK offering businesses £30,000 each to develop digital solutions that will help people share assets, resources, time and skills.<sup>50</sup> The Minister told us that the imposition of analogue regulations on a digital disruptor should not be done, if it is only to protect an existing industry: “The mindset of the Government should be, ‘How do we help this business to thrive and grow to the benefit of the consumer?’ rather than, ‘How do we stop this business because it is disrupting established industries?’”<sup>51</sup> We think that this approach is the right one.

46. The House of Lords Select Committee on the European Union published “Online platforms and the digital single market” in April 2016, advised against the creation of a platform-specific regulatory regime, arguing instead that “to protect consumers and to ensure that market power is not abused, we recommend that existing regulators should be vigilant in these markets”.<sup>52</sup> We agree that regulation should ensure that reasonable protection is either given *or offered* to individuals working in or using business models

49 Q 383, Brhmi Balarim. La’Zooz is a blockchain-managed ridesharing app, where the currency, La’Zooz, is generated through ‘proof of movement’ (from Douglas Rushkoff, “Throwing rocks at the google bus”, p222), and Loconomics takes no commission from their revenue, but providers of services pay a monthly fee that give them access to the platform and funds its marketing and operations. Any profits are reinvested into the company or shared with the providers, based on the hours they have booked through the platform (from ‘Locavesting’, December 2015).

50 [Innovate UK](#)

51 Q 490, the Minister of State for Culture and the Digital Economy, Ed Vaizey MP.

52 The House of Lord’s Select Committee on the European Union, [“Online platforms and the digital single market”](#) April 2016.

based on digital or disruptive technologies. It is right, for example, that customers have clear evidence and reassurance that Uber drivers and their cars have been checked fully, and that accommodation booked through Airbnb has adequate insurance.<sup>53</sup>

## Compliance

47. A major characteristic of the digital economy's model is the reliance on customer feedback. Debbie Wosskow, founding Chair of Sharing Economy UK, spoke of eBay as "the granddaddy of the sharing economy", which has relied on strangers giving a rating in a review, which is "as good as an inspector".<sup>54</sup> Bad customer feedback means that bad businesses are cut out of the market, and good businesses are good at compliance, when it comes to issues such as safety and security.<sup>55</sup>

48. One issue that the Government should explore is compliance responsibilities for platforms themselves. For example, Ubi Ibrahim from the British Hospitality Association, told us that some hosts on Airbnb's platform are flouting the planning rules in London that restrict the renting of homes for more than 90 days a year, and that "40% of the listings on Airbnb at the moment are what we would term professional landlords operating multiple properties, rather than, as dictated by the short letting regulations, homeowners, for example, providing a room or an entire property just for a few weeks of the year".<sup>56</sup>

49. Brhmie Balaram, senior researcher at the RSA and author of "Fair Share: Reclaiming power in the sharing economy" reiterated this point, stating that platform providers should be encouraged to take a greater role in meeting necessary standards, to alleviate the risks posed to the public and to allow innovation uninhibited.<sup>57</sup> We believe that platforms should have greater responsibility in ensuring that regulatory requirements are adhered to. Given that they have the technology at their disposal, this should not be an onerous responsibility.

**50. We recommend that the Government sets out clearly its key objectives for the regulation of disruptive change. Our view is that they should promote productivity, innovation, and customer choice and protection. The Department for Business, Innovation and Skills must be at the forefront of the regulation debate, with BIS Ministers initiating cross-Whitehall co-ordination with colleagues from relevant Departments to explore the regulatory opportunities that exist within the digital framework, and to ensure that regulations are in place to take account of new technology.**

**51. A major characteristic of the digital economy's model is the reliance on customer feedback. We recommend that the Government explore ways in which compliance solutions can be developed, to ensure a more collaborative approach to regulation that involves users and providers.**

**52. We recommend that the Government should study ways in which platforms providers could themselves become key players in the regulatory framework, ensuring that users are complying with current regulations, in order to reduce the risks posed to the public. This issue should be addressed specifically in the Digital Strategy.**

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53 Q 73 [Andrew Byrne]; Q 25 [Patrick Robinson].

54 Q 388.

55 Q 139 [Alex Depledge]; Q 385 [Brhmie Balaram].

56 Q 249

57 Brhmie Balaram, *Fair Share: reclaiming power in the sharing economy*, RSA, January 2016.

**53. Workers using the platforms should be entitled to reasonable employment conditions, and should not be vulnerable to exploitation, and we will be returning to this topic in greater detail when we carry out our inquiry into the future world of work in the autumn of 2016.**

## 6 Intellectual property, and the Digital Single Market

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### Intellectual property

54. In 2011, the Government initiated a review under Professor John Hargreaves to study copyright, and other parts of Intellectual Property. As with regulation and compliance covered in the previous Chapter, intellectual property and copyright laws need to be flexible and robust to adapt to whatever technology comes along.<sup>58</sup> Richard Mollett, from the Alliance for Intellectual Property, told us that there is enough flexibility within copyright law to say “it almost is technology neutral”.<sup>59</sup>

55. One of the innovative measures that the Government has taken is supporting the establishment of the Copyright Hub. The Copyright Hub was set up in 2013, as a not-for-profit, industry-lead organisation, to implement the recommendation of the Hargreaves Review, that the UK should establish a Digital Copyright Exchange to facilitate licensing. It was set up with the help of the Digital Catapult, which was itself set up in 2013 by Innovate UK, to drive future economic growth in the digital economy. The aim of the Copyright Hub is to make it easy and free for any piece of content to have a globally unique and resolvable identifier, which Copyright Hub’s written evidence describes as “a serial number, if you like, which can be ‘resolved’, a bit like a domain name, to a server which has information about the identifier and the content it relates to”.<sup>60</sup> The Copyright Hub connects the content to its owners, allowing machines to talk to each other about permission, rather than people; “the same thing the internet does”.<sup>61</sup>

56. The Copyright Hub is unique,<sup>62</sup> ensuring that the ability to ask for permission is done in a way “that is as simple, cheap and automatic as the discovery of the content itself”.<sup>63</sup> Dominic Young, CEO of the Copyright Hub, praised the Government and the Hargreaves Report:

The UK should pat itself on the back for doing something really practical and meaningful in this area, which can benefit the global economy and the British economy in particular, because we punch above our weight in the creative industries globally.<sup>64</sup>

57. The Coalition Government introduced some wide-ranging changes to the intellectual property regime through primary and secondary legislation on important issues such as copyright exceptions. Witnesses told us that the current regime more or less strikes the most appropriate balance between the rights of the creator and the consumer. Susie Winter, from the Publishers Association, told us that one of the biggest threats to innovation was legislation, especially legislation proposed in the context of the digital single market “that

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58 Q 209 and Q 210 [Richard Mollett]

59 Q 209

60 [The Copyright Hub Foundation](#)

61 [The Copyright Hub Foundation](#)

62 Q 216

63 Q 210

64 Q 215

is trying to fix a problem that is not there. That is really where we have got to with the Commission at the moment”.<sup>65</sup> We agree that further change in this area would not be helpful at the moment, and a period of stability would now be welcome.

**58. Intellectual Property is increasingly important to the economic success of the UK, but it is hard to manage in a digital context. The Intellectual Property regime in the UK is flexible enough to withstand technological and digital challenges. While we have not carried out a detailed study into the work of businesses working within IP issues, we were impressed with the evidence from the Copyright Hub, which incentivises creators and creativity, ensures that mechanisms are keeping up with technological disruption, and uses identifiers to connect the work with the creator.**

**59. The Government has shown foresight in leading on this work, in supporting the Copyright Hub, through the Digital Catapult (set up by Innovate UK, to drive future economic growth in the digital economy). It needs to continue to pledge financial support for this world-leading asset, particularly during the next few years of the Copyright Hub’s existence, when its work will be focussed on driving adoption.**

**60. The Coalition Government introduced some wide-ranging changes to the intellectual property regime through primary and secondary legislation on important issues such as copyright exceptions. The current regime strikes the appropriate balance between the rights of the creator and the consumer, and further change in this area would not be helpful at the moment.**

### **Enforcement**

61. The enforcement of intellectual property rights is crucial for the fostering of innovation. The Intellectual Property Office funded the City of London police to set up the IP Crime Unit in 2013, and it has pledged funding until 2017.<sup>66</sup> There have been successes concerning websites with digital material and websites dealing in physical material (buying counterfeit goods); since its inception in 2013, the IP Crime Unit has seized £3 million worth of fake goods, arrested 52 people and suspended over 6,000 websites.<sup>67</sup> Richard Mollett told us the IP Crime Unit “is close to unique in Europe”.<sup>68</sup>

62. Under the Copyright Designs and Patents Act 1988, it is illegal to remove rights management information (including identifiers) from content. Many of the large platforms remove them, by intercepting them, so the ability of content to retain its connection to its owner is removed by the process. However, if platforms keep the identifiers, as they should, that means that they are, in the words of Dominic Young, CEO of the Copyright Hub, “not just enablers of this environments but participants, too, because they will then be part of a value chain in which they can increase and add value, and participate in that value”.<sup>69</sup>

63. We heard of the work that the Government is doing with organisations that benefit, sometimes inadvertently, from illegal sites. John Alty, CEO of the Intellectual Property Office, told us that Government and the police were working with payment providers and

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65 Q 198

66 Q 222 [Richard Mollett]

67 [Intellectual Property Office](#)

68 Q 216

69 Q 223

advising advertisers that they might be funding illegal websites, with the aim of starving such illegal websites of funding and revenue. He told us that “it is the so-called follow-the-money approach”<sup>70</sup>, and that the UK was leading internationally on this. Baroness Neville-Rolfe told us that criminals can expect two years in prison for online crime, compared with 10 years for other crime, “and that seemed to me to be an anomaly that we would like to do something about, once we get some parliamentary time”.<sup>71</sup>

**64. *The IP Crime Unit was set up by the City of London in 2013, with £5.6 million funding by the Government until 2017. We support the work it does in stopping people breaking the law, and preventing creative industries from having their rights infringed. We recommend that funding should be available beyond 2017. Furthermore, we recommend that the Government replicates the work of the IP Crime Unit in other parts of the country, and provides the necessary resources to support this.***

**65. *The Government should be proactive in stopping metadata stripping, which removes identifiers from digital works. This is already an offence under the Copyright, Designs and Patents Act 1988. The current Digital Economy Bill includes the provision that perpetrators of online crime are subject to similar punishment to perpetrators of non-digital crime, which we support. Just as regulation must keep pace with digital economy development, so must enforcement.***

## Connectivity

66. While we did not include digital connectivity and infrastructure in our terms of reference, inevitably concerns were raised about the inconsistency of digital connectivity in the United Kingdom.<sup>72</sup> Concurrently with our digital economy inquiry, the Culture Media and Sport Committee carried out an inquiry into the coverage, delivery and performance of superfast broadband in the UK, and will also be publishing their Report in July 2016.<sup>73</sup>

67. We welcome the measures outlined in the Digital Economy Bill, introduced in March 2016, which will create the right for every household to access high speed broadband, through a new Broadband Universal Service Obligation, and to make the United Kingdom a world leader in the digital economy, “a place where technology ceaselessly transforms the economy, society and government”.<sup>74</sup> This will improve the internet connection for both individuals and businesses located in rural areas. However, clarification will be needed on how that coverage will be delivered on (or indeed in) the ground.<sup>75</sup> We welcome the fact that new digital industries will be supported, by addressing difference in online and offline copyright laws, and that registered design owners will be able to give notice of their rights more cheaply and flexibly.<sup>76</sup>

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70 Q 242

71 Q 240. The Digital Economy Bill part 4, section 26(3), proposes this change.

72 Q 14, Q 19, Q 20.

73 [Culture media and sport select committee](#).

74 [The Queens Speech 2016 contents](#), gov.uk.

75 Q 19 [Mike Cherry]

76 [The Queen’s Speech, May 2016](#)

## Digital Single Market

68. In October 2015, the European Commission published a strategy for upgrading the digital single market, and set out a mix of legislative and non-legislative initiatives to be tabled in 2016 and 2017, based on three main areas: ‘creating additional opportunities for consumers, professionals and businesses’; ‘encouraging modernisation and innovation’; and ‘ensuring practical benefits for people in their daily lives’. There are 16 headings under the digital single market, and Baroness Neville-Rolfe told us that “I am very clear that the consumer benefits of the digital single market are extremely important”.<sup>77</sup> ***The decision to leave the European Union risks undermining the United Kingdom’s dominance in this policy area. We could have led on the Digital Single Market, but instead we will be having to follow. The Government must address this situation, to stop investor confidence further draining away, with firms relocating into other countries in Europe to take advantage of the Digital Single Market.***

69. In December 2015, the European Commission introduced the first legislative proposal aimed at implementing the copyright strand of the Commission’s Digital Single Market Strategy, intended to ensure the portability of digital services across the EU, allowing the same access to digital content in France, for example, as in the United Kingdom. There is always a balancing act between the enabling of greater accessibility, letting consumers have access to a wide variety of digital text, and the protection of the rights of producers, especially those in the creative industries. Susie Winter, from the Publishers Association, stressed the importance of the digital single market supports makers and exporters of creative content, and does not support those EU member states who are just consumers of content.<sup>78</sup>

70. We heard that the Government should be negotiating on behalf of film, television and travelling content in reference to portability, and Baroness Neville-Rolfe told us that we need the UK’s strong film and television industry to be able to sell rights in different markets, and then—if it becomes a hit format—to sell it right across the EU and around the world.<sup>79</sup>

71. ***The implications of the European Single Digital Market were beyond the remit of this inquiry, but the Government needs to address the issue of whether businesses will be able to access the European Single Digital Market, if they want to do so. In broader terms, we recommend that the Government sets out in its digital strategy the implications of withdrawal from the European Union, in reference to specific, current EU negotiations relating to the digital economy. The Government must address this situation as soon as possible, to stop investor confidence further draining away, with firms relocating into other countries in Europe, to take advantage of the Digital Single Market.***

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77 Q 234

78 Q 196

79 Q 237



## 7 Digital co-ordination in the public sector

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72. The Minister recognised that clarity was needed between digital policies that cover the remits of both BIS and DCMS: “I think we need to pause, perhaps over the summer [of 2016] and have a good look at how we engage digitally”.<sup>80</sup> He also described the silo working of different Departments, including the Department for Transport and the Department for Energy and Climate Change, on connectivity.<sup>81</sup> He also wanted greater clarity in the work of different digital organisations, including Innovate UK, Tech City UK, Digital Catapult, The Future Cities Catapult and the Satellite Applications Catapult.<sup>82</sup>

73. We heard of innovative projects in NHS Scotland, using big data with a private company to develop a new diabetes treatment regime, which has resulted in a reduced number of amputations that patients with diabetes have to undergo, as well as the saving money for NHS Scotland.<sup>83</sup> Such collaborative work set a good example for other parts of the UK, and, in principle, we welcome measures contained in the Digital Economy Bill covering the use of data by the Government to deliver better public services, by the sharing of publically-held data (while maintaining safeguards on privacy) and more quickly available and more accurate research and statistics.

***74. There needs to be better co-ordination between Government Departments on digital innovations, in order to improve public sector efficiency, which in turn will benefit the economy. For the Government to have a holistic view of the different digital initiatives that each Department is undertaking, the Minister responsible for the Digital Economy should take the lead in overseeing digital projects. We recommend that this issue is addressed in the Government’s Digital Strategy.***

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80 Q 485

81 Q 485

82 Q 485

83 Q 19 [Rob Lamb]

## 8 Conclusion

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75. The United Kingdom is a digital leader with significant growth in the digital economy. The Government needs to continue to support digital innovation to promote productivity and growth. A crucial aspect of this support is the need to measure properly the digital economy, in order to inform its digital strategy. Also, the provision of core digital skills is paramount; while the fast pace of innovation means that there will always be a skills gap, a workforce with a clear grasp of the fundamentals will be best placed to respond to ever-changing needs. We recognise and endorse the Government's support of the digital economy, and we look forward to the Government's Digital Strategy, which we hope will be published as soon as possible.

76. Above all else, we call on the Government to provide clarity on the regulation of disruptive change, which should be to promote productivity, innovation, and customer choice and protection, while giving worker protection. Platforms themselves should be key players in the regulatory framework, ensuring both that users comply with regulations and that workers have reasonable employment conditions. We are excited by the potential of digital innovation to promote productivity and growth, and we look to the Government to continue its support of the digital economy. It should bring together in the Digital Strategy the different governmental initiatives that each Department is taking to ensure a cohesive and co-ordinated approach to promoting the digital economy.

77. Finally, the Government must explain how its Digital Strategy will be affected by the referendum result.

# Conclusions and recommendations

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## Measuring the digital economy

1. Good policy making, tax policy and the allocation of resources require high-quality data. This does not exist at present in the digital economy, and policy making cannot therefore be reliably expected to support as much as possible the digital economy, one of the UK's key drivers of improved productivity. The Government's Digital Strategy should be informed by, and policy measures should be driven by, reliable data. We recognise the difficulty of measuring the digital economy, but the Government should look to the work of the Office of National Statistics, and explore ways of collecting real-time data in the digital economy, and ensure that established Standard Industrial Classification (SIC) codes are agreed and used, in different parts of the digital economy. (Paragraph 13)

## The Government's digital strategy

2. We look forward to the publication of the Government's Digital Strategy, in the summer of 2016 (six months later than expected), which should explain how the Government will build on its success. We regret this delay, and call on the Government to explain the reasons for it, and why they initiated a three-week consultation over the Christmas break on what the Government should include in the strategy. (Paragraph 16)
3. While the Government is supporting the digital economy, including support of Innovate UK, Tech City and Tech North, there is no overall strategy for this support. We hope that the digital strategy will provide an overview of present and future Government policy on the digital economy, which will be published as soon as possible, and in its reply the Government must provide us with an update of any changes made to the strategy since it was originally written. (Paragraph 17)
4. The Government must also explain how the Digital Strategy will be affected by the referendum result. It should also set out in its reply and in the Digital Strategy a list of specific, current EU negotiations relating to the digital economy. (Paragraph 18)
5. At the forefront of the issues explained, the Digital Strategy must address head on the status of digitally-skilled workers from the European Union who currently work in the UK. The digital sector relies on skilled workforce from the European Union, and those individuals' rights to remain in the country must be addressed, and at the earliest opportunity. (Paragraph 19)

## Businesses and the digital economy

6. While we recognise that the provision of digital skills may never keep pace with the speed of innovation, there must be a bedrock of core skills that people need to acquire, so that they can build on, extend and then adapt to meet the needs of changing technology. We have not replicated the work of other Committees on the dearth of digitally-skilled workers, such as the Science and Technology Select Committee and the House of Lords Select Committee on Digital Skills, both of whom highlighted

the shortage of workers with IT skills. However, both Reports were published before the result of the referendum, and the Government needs to state in its reply how tech firms that employ EU nationals will be affected in the short, medium and long term. The Government needs to provide clarity surrounding skills, post referendum, otherwise skills and talent will be lost to other countries. (Paragraph 26)

### Showcasing the success of digital businesses

7. The UK is one of the prime destinations in Europe to set up a tech business. The gaming industry does not have the recognition it deserves as an innovator and, in some cases, a world leader. It is making a larger contribution to the economy that is not picked up because of the way in which the gaming industry is measured. (Paragraph 31)
8. The United Kingdom is a world leader in Fintech, with the sector estimated to be worth £20 billion in annual revenues. This position could now be at risk as firms will want to be part of the single market of financial regulation. The Government needs to set out with urgency how it will address this, to avoid our strengths in fintech being eroded. (Paragraph 32)

### Apprenticeship levy

9. We are currently running a joint inquiry on apprenticeships with the Education Committee, and therefore will not comment on substantive aspects of the apprenticeship levy in this Report. However, small businesses (including digital businesses) employing highly-skilled workers may not have the capacity to employ apprentices, and therefore the current apprenticeship levy requirements could hinder those businesses financially. The Government needs to address how differing business workforce models, such as tech firms, with a small number of highly-skilled workers, are not compromised through the operation of the apprenticeship levy. (Paragraph 37)

### The challenge from 'disruptive' technologies

10. The fact that disruptive technologies are inevitably evolving, and the pace of change is accelerating, means that it is crucial that public policy is 'future-proofed' as far as possible, to ensure that the need for constant regulatory reform is minimised. (Paragraph 42)

### Compliance

11. We recommend that the Government sets out clearly its key objectives for the regulation of disruptive change. Our view is that they should promote productivity, innovation, and customer choice and protection. The Department for Business, Innovation and Skills must be at the forefront of the regulation debate, with BIS Ministers initiating cross-Whitehall co-ordination with colleagues from relevant

Departments to explore the regulatory opportunities that exist within the digital framework, and to ensure that regulations are in place to take account of new technology. (Paragraph 50)

12. A major characteristic of the digital economy's model is the reliance on customer feedback. We recommend that the Government explore ways in which compliance solutions can be developed, to ensure a more collaborative approach to regulation that involves users and providers. (Paragraph 51)
13. We recommend that the Government should study ways in which platforms providers could themselves become key players in the regulatory framework, ensuring that users are complying with current regulations, in order to reduce the risks posed to the public. This issue should be addresses specifically in the Digital Strategy. (Paragraph 52)
14. Workers using the platforms should be entitled to reasonable employment conditions, and should not vulnerable to exploitation, and we will be returning to this topic in greater detail, when we carry out our inquiry into the future world of work in the autumn of 2016. (Paragraph 53)

### Intellectual property

15. Intellectual Property is increasingly important to the economic success of the UK, but it is hard to manage in a digital context. The Intellectual Property regime in the UK is flexible enough to withstand technological and digital challenges. While we have not carried out a detailed study into the work of businesses working within IP issues, we were impressed with the evidence from the Copyright Hub, which incentivises creators and creativity, ensures that mechanisms are keeping up with technological disruption, and uses identifiers to connect the work with the creator. (Paragraph 58)
16. The Government has shown foresight in leading on this work, in supporting the Copyright Hub, through the Digital Catapult (set up by Innovate UK, to drive future economic growth in the digital economy). It needs to continue to pledge financial support for this world-leading asset, particularly during the next few years of the Copyright Hub's existence, when its work will be focussed on driving adoption. (Paragraph 59)
17. The Coalition Government introduced some wide-ranging changes to the intellectual property regime through primary and secondary legislation on important issues such as copyright exceptions. The current regime strikes the appropriate balance between the rights of the creator and the consumer, and further change in this area would not be helpful at the moment. (Paragraph 60)

### Enforcement

18. The IP Crime Unit was set up by the City of London in 2013, with £5.6 million funding by the Government until 2017. We support the work it does in stopping people breaking the law, and preventing creative industries from having their rights infringed. We recommend that funding should be available beyond 2017.

Furthermore, we recommend that the Government replicates the work of the IP Crime Unit in other parts of the country, and provides the necessary resources to support this. (Paragraph 64)

19. The Government should be proactive in stopping metadata stripping, which removes identifiers from digital works. This is already an offence under the Copyright, Designs and Patents Act 1988. The current Digital Economy Bill includes the provision that perpetrators of online crime are subject to similar punishment to perpetrators of non-digital crime, which we support. Just as regulation must keep pace with digital economy development, so must enforcement. (Paragraph 65)

### Digital Single Market

20. The decision to leave the European Union risks undermining the United Kingdom's dominance in this policy area. We could have led on the Digital Single Market, but instead we will be having to follow. The Government must address this situation, to stop investor confidence further draining away, with firms relocating into other countries in Europe to take advantage of the Digital Single Market. (Paragraph 68)
21. The implications of the European Single Digital Market were beyond the remit of this inquiry, but the Government needs to address the issue of whether businesses will be able to access the European Single Digital Market, if they want to do so. In broader terms, we recommend that the Government sets out in its digital strategy the implications of withdrawal from the European Union, in reference to specific, current EU negotiations relating to the digital economy. The Government must address this situation as soon as possible, to stop investor confidence further draining away, with firms relocating into other countries in Europe, to take advantage of the Digital Single Market. (Paragraph 71)

### Digital co-ordination in the public sector

22. There needs to be better co-ordination between Government Departments on digital innovations, in order to improve public sector efficiency, which in turn will benefit the economy. For the Government to have a holistic view of the different digital initiatives that each Department is undertaking, the Minister responsible for the Digital Economy should take the lead in overseeing digital projects. We recommend that this issue is addressed in the Government's Digital Strategy. (Paragraph 74)

# Formal Minutes

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**Tuesday 12 July 2016**

Members present:

Mr Iain Wright, in the Chair

Paul Blomfield	Michelle Thomson
Richard Fuller	Kelly Tolhurst
Peter Kyle	Craig Tracey
Amanda Milling	Chris White
Amanda Solloway	

Draft Report (*The Digital Economy*), proposed by the Chair, brought up and read.

*Ordered*, That the draft Report be read a second time, paragraph by paragraph.

Paragraphs 1 to 77 read and agreed to.

Summary agreed to.

*Resolved*, That the Report be the Second Report of the Committee to the House.

*Ordered*, That the Chair make the Report to the House.

*Ordered*, That embargoed copies of the Report be made available, in accordance with the provisions of Standing Order No. 134.

Written evidence was ordered to be reported to the House for publishing with the Report (in addition to that ordered to be reported for publishing on 3, 10, 17 November, 1, 8 December, 6 January, 10 February, 16 March and 19 April).

[Adjourned till Tuesday 19 July at 12.30 pm]

## Witnesses

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The following witnesses gave evidence. Transcripts can be viewed on the [inquiry publications page](#) of the Committee's website.

### Tuesday 10 November 2015

*Question number*

**Mike Cherry**, Policy Director, Federation of Small Businesses, **Rob Lamb**, Cloud Business Director and Chief Technology Officer, EMC Corporation, and **John Connolly**, Managing Director, Centre for Digital Innovation, Humber LEP

[Q1–43](#)

**Dr Maren Deepwell**, Chief Executive, Association for Learning Technology, **Dean Cassar**, Director of Resources, Tech Partnership, and **Seetha Kumar**, Chief Executive Officer, Creative Skillset

[Q44–66](#)

### Tuesday 24 November 2015

**Andrew Byrne**, Head of Public Policy in the UK and Ireland, Uber, **Alex Depledge**, Chief Executive Officer, Hassle.com, and **Ben Williams**, Head of Operations, AdBlockPlus

[Q67–147](#)

**Richard Massett**, Chairman, Licensed Taxi Drivers Association, **Charlotte Holloway**, Head of Policy and Associate Director, techUK, and **Steve Chester**, Director of Data and Industry Programmes, Internet Advertising Bureau UK

[Q148–190](#)

### Tuesday 15 December 2015

**Susie Winter**, Director of Policy and Communications, Publishers Association, **Jane Dyball**, Chief Executive, Music Publishers Association, representing UK Music, and **Catherine Courtney**, Legal Adviser, News Media Association

[Q191–207](#)

**Dominic Young**, Chief Executive Officer, The Copyright Hub Foundation, and **Richard Mollet**, Chair, Alliance for Intellectual Property

[Q208–225](#)

**Baroness Neville-Rolfe DBE CMG**, Parliamentary Under-Secretary of State, Department for Business, Innovation and Skills, and Minister for Intellectual Property, and **John Alty**, Chief Executive Officer, Intellectual Property Office

[Q226–246](#)

### Tuesday 12 January 2016

**Patrick Robinson**, Head of Public Policy in Europe, the Middle East and Africa, Airbnb, and **Ufi Ibrahim**, Chief Executive, British Hospitality Association

[Q247–307](#)

**Russell Gould**, Chief Operating Officer, Everline, **Gareth Mann**, CEO, Digital Contact, **Matt Hammerstein**, MD, Customer and Consumer Engagement, Barclays Bank, and **Olly Betts**, CEO, businessfinancecompared.com

[Q308–340](#)



**Tuesday 23 February 2016**

**Matt O'Neill**, Major Projects Manager, Cheshire East Council, Chris Taylor, Connecting Shropshire Programme Manager, Shropshire Council, and **Herb Kim**, Interim Head, Tech North

[Q341–375](#)

**Brhmie Balaram**, Senior Researcher, RSA, and author of Fair Share: Reclaiming power in the sharing economy, **Debbie Woskow**, author of Unlocking the sharing economy: an independent review, and **Professor Diane Coyle OBE**, Professor of Economics, Manchester University, Fellow of the ONS, and author of The Sharing Economy

[Q376–403](#)

**Tuesday 8 March 2016**

**Jo Twist**, CEO, Ukie, **Chris van der Kuyl**, Chairman, 4J Studios, and **Philip Oliver**, CEO, Radiant Worlds

[Q404–432](#)

**Helen Dickinson**, Chief Executive, British Retail Consortium, and **Paul Misener**, Vice-President, Global Public Policy, Amazon

[Q433–479](#)

**Tuesday 22 March 2016**

**Ed Vaizey MP**, Minister of State for Culture and the Digital Economy, Department for Culture, Media and Sport and the Department for Business, Innovation and Skills

[Q478–530](#)

## Published written evidence

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The following written evidence was received and can be viewed on the [inquiry publications page](#) of the Committee's website.

TDE numbers are generated by the evidence processing system and so may not be complete.

- 1 Addison Lee ([TDE0050](#))
- 2 Advertising Association ([TDE0068](#))
- 3 Airbnb ([TDE0102](#))
- 4 Airbnb ([TDE0104](#))
- 5 Alliance ([TDE0105](#))
- 6 Alliance for Intellectual Property ([TDE0061](#))
- 7 Apps for Good ([TDE0021](#))
- 8 Arm Holdings ([TDE0008](#))
- 9 Arqiva ([TDE0031](#))
- 10 Association for Learning Technology ([TDE0029](#))
- 11 Association of Authors' Agents ([TDE0080](#))
- 12 Association of Colleges ([TDE0033](#))
- 13 Baker Dearing Educational Trust ([TDE0020](#))
- 14 Barclays Bank Plc ([TDE0065](#))
- 15 Bba ([TDE0053](#))
- 16 BBC ([TDE0078](#))
- 17 BESA ([TDE0023](#))
- 18 Booksellers Association ([TDE0107](#))
- 19 BPI ([TDE0072](#))
- 20 British Film Institute ([TDE0089](#))
- 21 British Hospitality Association ([TDE0103](#))
- 22 British Library ([TDE0046](#))
- 23 British Video Association ([TDE0081](#))
- 24 BT ([TDE0085](#))
- 25 Business.Finance.Compared.Com ([TDE0077](#))
- 26 Callcredit Information Group ([TDE0035](#))
- 27 CBI ([TDE0045](#))
- 28 Chartered Trading Standards Institute ([TDE0015](#))
- 29 Cheshire East Borough Council ([TDE0007](#))
- 30 Chief Economic Development Officers Society ([TDE0026](#))
- 31 Cifas ([TDE0047](#))
- 32 CILIP (Chartered Institute of Library and Information Professionals ([TDE0051](#)))
- 33 City of London Corporation ([TDE0096](#))

- 34 City of London Police ([TDE0097](#))
- 35 CLA ([TDE0048](#))
- 36 Creative England ([TDE0079](#))
- 37 Creative Skillset ([TDE0069](#))
- 38 DBIS and DCMS jointly ([TDE0093](#))
- 39 Design and Artists Copyright Society (DACS) ([TDE0034](#))
- 40 Digital Birmingham ([TDE0027](#))
- 41 Dr Neil Lee ([TDE0066](#))
- 42 EE ([TDE0091](#))
- 43 EMC Corporation ([TDE0017](#))
- 44 EMC Corporation - supplementary ([TDE0095](#))
- 45 Everline ([TDE0106](#))
- 46 Exeter & Heart of Devon Employment & Skills Board ([TDE0028](#))
- 47 Federation of Small Businesses ([TDE0025](#))
- 48 Federation of Small Businesses - supplementary ([TDE0094](#))
- 49 Film Distributors' Association ([TDE0009](#))
- 50 Gett ([TDE0067](#))
- 51 Google ([TDE0101](#))
- 52 Here East ([TDE0059](#))
- 53 Humber LEP ([TDE0063](#))
- 54 Innovate UK ([TDE0014](#))
- 55 Institute of Directors ([TDE0036](#))
- 56 Intellectual Property Office ([TDE0092](#))
- 57 Internet Advertising Bureau UK ([TDE0087](#))
- 58 Libraries and Archives Copyright Alliance (LACA) ([TDE0032](#))
- 59 Licensed Taxi Drivers Association ([TDE0090](#))
- 60 Microsoft ([TDE0060](#))
- 61 Motion Picture Association ([TDE0073](#))
- 62 Musicians Union ([TDE0041](#))
- 63 News Media Association ([TDE0044](#))
- 64 OECD ([TDE0004](#))
- 65 Ofcom ([TDE0074](#))
- 66 Ordnance Survey ([TDE0058](#))
- 67 Pact - Producers Alliance For Cinema And TV ([TDE0055](#))
- 68 Research Councils UK ([TDE0018](#))
- 69 Samsung UK & Ireland ([TDE0070](#))
- 70 Shropshire Council ([TDE0016](#))
- 71 Shropshire Council ([TDE0108](#))

- 72 Specialist Engineering Contractors Group (SEC) ([TDE0071](#))
- 73 Strategic Blue ([TDE0054](#))
- 74 Techuk ([TDE0088](#))
- 75 Tees Valley Unlimited ([TDE0024](#))
- 76 The Copyright Hub Foundation ([TDE0100](#))
- 77 The Institute of Customer Service ([TDE0039](#))
- 78 The London Internet Exchange Ltd ([TDE0010](#))
- 79 The Publishers Association ([TDE0057](#))
- 80 The Tech Partnership ([TDE0086](#))
- 81 Tinder Foundation ([TDE0006](#))
- 82 TQ Training ([TDE0002](#))
- 83 Transport for London ([TDE0099](#))
- 84 Uber ([TDE0098](#))
- 85 UK Music ([TDE0076](#))
- 86 Unilink Software Ltd ([TDE0030](#))
- 87 Vocalink ([TDE0042](#))
- 88 Vodafone Limited ([TDE0075](#))

## List of Reports from the Committee during the current Parliament

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All publications from the Committee are available on the [publications page](#) of the Committee's website.

The reference number of the Government's response to each Report is printed in brackets after the HC printing number.

### Session 2015–16

First Report	The UK steel industry	HC 546
Second Report	The Government's Productivity Plan	HC 466
Third Report	The Teaching Excellence Framework: Assessing quality in Higher Education	HC 572
First Special Report	Competition in the postal services sector and the Universal Service Obligation: Responses to the Committee's Ninth Report of Session 2014–15	HC 447
Second Special Report/ First Joint Special Report	Education, skills and productivity: commissioned research	HC 565
Third Special Report	The UK steel industry: Government Response to the crisis: Response to the Committee's First Report of Session 2015–16	HC 861

### Session 2016–17

First Report	Careers education, information, advice and guidance	HC 205
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