



The Challenge and Opportunities of the Digital Age



Dear Colleagues,

Paper 4/2018: The Challenge and Opportunities of the Digital Age

We hope that you had a good summer and that you have seen the encouraging formal responses that we received to our discussions on the environment, on skills & training and on Conservatives values. We are now processing your submissions to our health & social care paper and are pleased to publish this new discussion paper on the challenge and opportunities of the digital age.

As always, discussions will be more greatly informed if groups are able to include members from different age groups. If your CPF Group does not usually include many **members aged under 40**, then we would encourage you to use this opportunity to reach out to younger voters in your constituency.

Please advertise the CPF paper on your **Facebook** and **Twitter** pages and encourage participation of non-members as well. It would be great if you could post a photo online of your meeting too. Let people know that you are interested in *them* and want to understand *their* perspective.

We want to ensure that as many associations and as many members are able to engage in this vital and wide-ranging discussion. Some groups may wish to discuss the questions over the course of two meetings. The closing date for this brief is therefore **31 October**.

Please send your responses to the paper, via CPF.Papers@conservatives.com, using the associated response form published alongside this paper in the News section of the CPF website.

A summary of responses to this paper will be sent to the Secretary of State for Digital, Culture, Media & Sport, the Rt Hon Jeremy Wright MP; CPF Chairman, George Freeman MP; Conservative Vice-Chairman for Policy, Chris Skidmore MP; and the Prime Minister's Policy Unit within a month of the closing date for submissions.

The next paper will be on **Disability and Inclusion** and will be published at the start of November. Thank you. We look forward to hearing your ideas on this important topic.

The CPF Team

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One Page Summary

*"In 1982 ... I said that "a single career change may not be enough in an age of fundamental structural evolution". ... Today we can see the spread of **annually updated** professional and technician "certificates to practice" from medical consultants [and] aerospace engineers to other areas where proof of current competence is essential. Meanwhile digital marketing or security practitioners can become seriously out of date **within months** unless they spend time **each week** keeping up to date."* (Philip Virgo, Chairman of the Conservative Technology Forum, 31 May 2018)

The Challenge and Opportunities of the Digital Age

The transforming power of technology is once again, changing our world. Seizing this new technology can be the basis of our nation's success after Brexit, for the rest of the 21st century. For cutting edge technology, coupled with creative and artistic genius, is the fulcrum upon which our country will be built.

Questions for discussion

1. To what extent do you view the digital age as a force for good?
2. Finding the balance between encouraging tech innovation and mitigating tech's harms is crucial to the tech revolution. What are the most important areas you think Government should be focusing on in order to achieve this?
3. How active should the Government be in tackling online harms? To what extent do you view legislation necessary in tackling this?
4. To what extent has your broadband improved recently?
5. British tech start-ups are vital to the UK tech industry. What more can we do to support our entrepreneurs of the future?

Additional questions

6. Social media has experienced serious challenges recently. How active should Government be in addressing the challenges posed by social media?
7. How concerned are you that the automation of jobs will put many people out of work? Do you think the creation of new jobs from the tech revolution will be sufficient?
8. Is there any other question you think should have been asked or observation you would like to make?

The Conservative Track Record

What Our Manifesto Said

Appendix: Facts and Figures

The Challenge and Opportunities of the Digital Age

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The transforming power of technology is once again, changing our world. Seizing this new technology can be the basis of our nation's success after Brexit, for the rest of the 21st century. For cutting edge technology, coupled with creative and artistic genius, is the fulcrum upon which our country will be built.

Faster than ever before, the world we live in is being changed. How we earn our way around the world and how we build jobs and prosperity here at home. And we now have the chance to build on what we have done over the past decade and truly capitalise on this opportunity.

Investment in the tech sector doubled in the last year, and is growing at three times the pace of the rest of the economy. We have created more jobs than ever before and employment rates are at record highs. But there are understandable concerns that these technologies will undermine jobs and prosperity.

Yet, the risk is not that we adopt new technologies that will change jobs. The risk is that we don't adopt new technologies and that we fail to create the jobs of the future.

That means that we have this difficult balance between the need to support the disrupters who are creating new technologies, creating the new jobs and ultimately generating productivity growth; and at the same time supporting those who are disrupted. For, it's no good having a job in the long term if you don't have one in the short term.

So we need to make sure that we support those who are disrupted as well as supporting the disruption itself. We want to see redeployment not unemployment, by creating the jobs of the future and making sure people have the skills and capabilities to excel to accept them and generate them.²

As we noted in an earlier policy discussion, on jobs and skills, automation has historically increased productivity, which in turn has led to a net increase in employment and higher salaries. Nevertheless, increased investment in lifelong vocational education and training will be required to help people adapt to increased automation.

One group noted in their response to that paper, "A much more serious problem is the challenge posed by artificial intelligence to the status of academic values and knowledge-based professions."

Britain is already an authority in AI. We have the world's best AI company, Deepmind, and we are recognised by the OECD for leading in the use of AI in Government. But we need to keep looking forward. And we can only say that we've truly succeeded if we use this exciting technology to tackle the long-term issues that are shaping our world today.³

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The Conservative Track Record

- Last March we published the UK Digital Strategy. One of its main pillars was to help every British business become a digital business. It will also provide four million free digital skills training opportunities, whilst making Britain the best place in the world to start and grow a digital business.
- We have put in place the Digital Skills Partnership. The aim of this partnership is to improve the digital capability that is needed right across the country. And building local partnerships to tailor digital skills training to the needs of the local community.
- We doubled tech investment in the last year. We are the biggest destination for tech investment outside of the USA and China.
- Last year, venture capital investment in London's tech sector reached an all-time high, attracting around £2.5 billion. If you add up the venture capital investment in Germany, France, Spain and Ireland, it would still be less than that in the UK. And with that money comes 3 million jobs.
- Almost 5 million additional homes and businesses now have superfast broadband available thanks to the Government's investment in the Superfast Broadband Programme. There are limits to what we can invest governing by state aid. The £1.7bn+ Superfast Broadband programme reached 95% of premises in December 2017 – up from 45% in 2010. And we will continue supporting the delivery of superfast broadband beyond the 95% level, with at least a further 2% likely to be achieved before 2020.
- In 2017 we launched the first wave of our Local Full Fibre Networks programme. The programme is designed to fund full fibre connections to businesses, local residents and public sector buildings across the UK, in order to stimulate commercial investment in fibre networks and accelerate full fibre rollout across the UK. It is part of the £740m National Productivity Investment Fund which supports the next generation of digital infrastructure.
- We have also launched our Urban Connected Communities project - a large-scale testbed that will use 5G connectivity to improve the quality of life in a major UK city.
- We have spent over £10m on funding the Future Digital Inclusion project run by the Good Things Foundation, supporting the delivery of basic digital skills to adults in England via 5,000 community centres. From 2020, we will introduce fully-funded basic digital skills training for any adults lacking these vital skills.⁴

What Our Manifesto Said

- "We will equip people with the digital skills they need now, and in the future, by introducing a right to lifelong learning in digital skills, just as we have done for literacy and numeracy." (p.53)
- "We will harness the opportunities of flexible working and the digital economy to generate jobs for those whose disabilities make traditional work difficult." (p.57)
- "We will empower patients, giving them a greater role in their own treatment and use technology to put care at their convenience. In addition to the digital tools patients already have, we will give patients, via digital means or over the phone, the ability to book appointments, contact the 111 service, order repeat prescriptions, and access and update aspects of their care records, as well as control how their personal data is used. We will continue to expand the number of NHS approved apps that can help monitor care and provide support for physical and mental health conditions.

We will pilot the live publication of waiting times data for A&Es and other urgent care services.” (pp.68f)

- “A Conservative government will develop a digital charter, working with industry and charities to establish a new framework that balances freedom with protection for users, and offers opportunities alongside obligations for businesses and platforms. This charter has two fundamental aims: that we will make Britain the best place to start and run a digital business; and that we will make Britain the safest place in the world to be online.” (p.77)
- “We will therefore create a new presumption of digital government services by default and an expectation that all government services are fully accessible online, with assisted digital support available for all public sector websites.” (p.80)
- “We also want to use digital innovation to help tackle the great challenge of an ageing population, in conjunction with our social care reforms set out in chapter four. We will support new providers seeking to use digital technology to monitor long-term conditions better, deploy carers to patients or support better domiciliary care away from hospitals.” (p.81)
- “We are leading the world in preparing for autonomous vehicles and will press ahead with our plans to use digital technology to improve our railways, so that our roads and tracks can carry more people, faster, more safely and more efficiently. Smart grids will make the most efficient use of our electricity infrastructure and electric vehicles, and we will use technology to manage our airspace better to reduce noise pollution and improve capacity.” (p.81)
- “We will combine the relevant parts of HM Land Registry, Ordnance Survey, the Valuation Office Agency, the Hydrographic Office and Geological Survey to create a comprehensive geospatial data body within government, the largest repository of open land data in the world. This new body will set the standards to digitise the planning process and help create the most comprehensive digital map of Britain to date.” (p.82)
- “It is in no-one’s interest for the foundations of strong societies and stable democracies – the rule of law, privacy and security – to be undermined. So we will establish a regulatory framework in law to underpin our digital charter and to ensure that digital companies, social media platforms and content providers abide by these principles.” (p.82)



Appendix: Facts and Figures

A recent study of actual changes in employment over the previous 15 years concluded that “while technology has potentially contributed to the loss of approximately 800,000 lower-skilled jobs, there is equally strong evidence to suggest that it has helped to create nearly 3.5 million new higher-skilled ones in their place. Each one of these new jobs pays, on average, £10,000 more per annum than the one lost.”⁵

The research also found that between 2001 and 2015, the Midlands, South West, and North West all experienced above average losses in jobs they considered to be at high risk of automation. However, these and every region and nation of the UK benefitted overall, and the technology-driven changes added £140 billion to the UK’s economy in new wages.

A variety of other studies also suggest that:

- Existing technology could automate 45 per cent of the activities people are currently paid to perform.⁶
- About 60 per cent of all occupations could see 30 per cent or more of their constituent activities automated with technologies already available today.⁶
- Over 10 million UK jobs (around 30 percent) could potentially be at high risk of automation by the early 2030s. Workers with just GCSE-level education or lower are at greatest risk.⁷
- Over half of these potential losses are in four key sectors: wholesale and retail trade, manufacturing, administrative and support services, and transport and storage.⁷
- Productivity gains⁸ will “generate additional wealth and spending that will support additional jobs of existing kinds, primarily in services sectors that are less easy to automate.”⁹
- “Average pre-tax incomes should rise due to the productivity gains, but these benefits may not be evenly spread across income groups.”⁹

Endnotes

¹ *A UK Strategy for the 4th Industrial Revolution?*, Computer Weekly, 31 May 2018: [link](#)

² *Matt Hancock speaking at the Future of Work Summit*, Department for Digital, Culture, Media & Sport, 14 June 2018: [link](#)

³ *Matt Hancock speaking at the opening of the Cyber Innovation Centre*, Department for Digital, Culture, Media & Sport, 26 June 2018: [link](#)

⁴ *Margot James - ‘Ensuring UK businesses lead the way in the era of global connectivity’*, Department for Digital, Culture, Media & Sport, 6 June 2018: [link](#)

⁵ *From Brawn to Brains: The Impact of Technology on Jobs in the UK*, Deloitte, 2015: [link](#)

⁶ *Where machines could replace humans-and where they can't (yet)*, McKinsey Quarterly, July 2016: [link](#)

⁷ *Will robots steal our jobs? The potential impact of automation on the UK and other major economies*, UK Economic Outlook, pp.30-45, PwC, March 2017: [link](#)

⁸ *Artificial intelligence promises to boost productivity by 25 per cent in the UK by 2035. Why artificial intelligence is the future of growth*, Accenture, 2016: [link](#)

⁹ *Why Britain Needs More Robots*, Centre for Policy Studies, 8 November 2017: [link](#)