

**Supplementary written evidence submitted by the Department for Digital, Culture,  
Media and Sport (ADM0015)**

1. This memorandum provides an update to the evidence previously submitted by the Government to the Inquiry in April 2017. The Department for Digital, Culture, Media and Sport (DCMS) has prepared it with a contribution from the Government Digital Service (GDS).
2. The Government wants the UK to be a world leader in Artificial Intelligence (AI), which has the potential to boost productivity, advance health care, improve services for customers, and unlock £630 billion for the UK economy. An independent review, [Growing the Artificial Intelligence Industry in the UK](#), which was announced in the Digital Strategy in March 2017, has now been published. We will continue to work with the sector in the coming months to secure a comprehensive Sector Deal that make the UK the go to place for AI and helps us grasp the opportunities that lie ahead.
3. AI gives us an opportunity to get much more out of current resources, to reduce strain on energy, and to help combat climate change. The vast volumes of new data produced by Internet of Things sensors will enable much better use of resources and environmental protection, but only AI will be able to handle this volume to produce usable, real-time insights. The National Infrastructure Commission is looking at new tech including AI for infrastructure.
4. As the AI Review highlighted, whilst AI can embed biases in systems, it can also reveal and disarm them. AIs can be developed that can detect biases, both in new AI-supported functions, but also in existing, historical systems that still influence decision-making in different sectors. AI can address the challenges faced by individuals because of unconscious bias, by bringing these to the surface more effectively than has been done in the past.
5. Since April 2017 the Government has also made commitments as set out in the Conservative Party manifesto to “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”, and to “institute an expert Data Use and Ethics Commission to advise regulators and parliament on the nature of data use and how best to prevent its abuse.”
6. These commitments were informed by a number of recent reports, including the Science and Technology Committee’s ‘The Big Data Dilemma’, the Royal Society’s ‘Machine Learning - the power and promise of computers that lead by example’, and the Royal Society and British Academy’s ‘Data Management and Use: Governance in the 21st Century’.
7. The Digital Charter will provide a way for society to agree rules for the Internet and digital economy that carry democratic legitimacy and widespread

support. This will ensure we get the right balance between freedom and security in the new digital age, so that we can harness the power of new technology for good, and mitigate the new challenges it presents.

8. We will work with businesses, academics, charities and the wider public to develop the Charter, considering areas where government and industry can work together to strengthen user confidence and trust in technology, and help the digital economy to thrive. This engagement process will commence in the coming months.

### **The extent of current and future use of algorithms in decision-making in Government and public bodies, businesses and others, and the corresponding risks and opportunities**

9. In such a fast changing discipline as data science, new tools and techniques require constant reassessment of the ethical challenges and best practice. This was recognised with the publication of the first Data Science Ethical Framework in 2016, which was a 'beta' version, to be improved with feedback from individuals inside and outside Government. GDS is now working with key stakeholders across academia, industry, and civil society to publish a revised framework to ensure it continues to be fit-for-purpose.

### **Whether 'good practice' in algorithmic decision-making can be identified and spread, including in terms of:**

- **The scope for algorithmic decision-making to eliminate, introduce or amplify biases or discrimination, and how any such bias can be detected and overcome;**
- **Whether and how algorithmic decision-making can be conducted in a 'transparent' or 'accountable' way, and the scope for decisions made by an algorithm to be fully understood and challenged;**
- **The implications of increased transparency in terms of copyright and commercial sensitivity, and protection of an individual's data**

10. The Government is committed to setting up an expert Data Use and Ethics body. The Terms of Reference of the body are currently being scoped, but the role of algorithms in decision-making and the need to identify best practice, and to promote it, is expected to be within that scope. The body may, for example, be tasked with engaging with industry to develop standards or codes of conduct for the use of algorithms.

### **Methods for providing regulatory oversight of algorithmic decision-making, such as the rights described in the EU General Data Protection Regulation 2016.**

11. The Information Commissioner's Office (ICO) will regulate the application of the Data Protection Bill once it is made law, and the General Data Protection

Regulation (GDPR). The ICO has the powers to investigate organisations that do not comply with the new data protection regime. The Information Commissioner will be able to issue fines if organisations fail to meet particular legal requirements. The Bill provides safeguards for individuals against the risk that a potentially damaging decision is taken without human intervention. These rights will work in a similar way to existing rights under the Data Protection Act. As the technology continues to develop, the Data Use and Ethics body will be well placed to advise Government on any regulatory gaps in the future.

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