

Work and Pensions Committee

Inquiry: DWP's preparations for changes in the world of work

A submission from the British Academy
and UCL Public Policy / UCL Grand
Challenges

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Introduction

About the British Academy

The British Academy is the UK's national body for the humanities and social sciences – the study of peoples, cultures and societies, past, present and future. We have three principal roles: as an independent fellowship of world-leading scholars and researchers; a funding body that supports new research in the humanities and social sciences, national and internationally; and a forum for debate and engagement – a voice that champions the humanities and social sciences.

The humanities and social sciences have a rich and unique contribution to make to the world we live in. The British Academy's fellowship represents breadth and excellence across these disciplines, and the Academy's policy work is dedicated to applying that insight to policy issues for public benefit and societal wellbeing. We bring independence, authority and objectivity to complex issues to enlighten the context, meaning and practicalities of challenges in public policy.

We have an ongoing programme of work on [data and AI](#). This programme asks how big data, data-driven technologies and artificial intelligence (AI) are changing the way that people live, and how we can harness this change for good. A key publication in this programme is [the impact of artificial intelligence on work](#), an evidence synthesis by the British Academy and Royal Society (2018).

About UCL Public Policy and Grand Challenges

[UCL Public Policy](#) supports engagement between a diverse range of researchers and policy professionals in order to enhance the use of evidence and expertise in policy and decision making.

UCL's Grand Challenges of [Transformative Technology](#) and [Justice & Equality](#) convene and foster cross-disciplinary research, partnerships, and initiatives across UCL and with external partners. GCTT explores the social impacts of new technology and how data can be used for good. GCJE examines the barriers people face to justice and how societal structures perpetuate and sustain inequalities.

About this submission

This submission is a summary of discussions that took place at a recent workshop hosted by the British Academy and UCL, as part of a longer project investigating social implications of AI on the Future of Work. This workshop took place over two virtual sessions on Monday 22 and Monday 29 June 2020 and included expert contribution from representatives from parliament, government, academia, business, technology, and education. Discussions were held under the Chatham House Rule. As such, this submission does not constitute a formal policy position of the British Academy nor its Fellows, UCL Public Policy, UCL Grand Challenges or any of the individual attendees of the event, and we do not intend it to represent comprehensive coverage of the issues. However, we believe that it will nevertheless be of interest to the Committee.

The submission has three short sections:

1. What do we know about how AI might impact future skills and the quality and equity of work?
2. What don't we know about how AI might impact future skills and the quality and equity of work?
3. What should we do to advance action on AI and the future of work?

We have also attached two further documents that provide additional information:

- The background briefing paper circulated to attendees ahead of the workshop,
- The full write-up of the discussions at the workshop.

Discussion

1. What do we already know about how AI might impact future skills and the quality and equity of work?

Future skills

It can be very easy to overestimate what people and organisations know about AI. Significant outreach is needed, including to reach people who think that AI is not relevant to them.

The skills required for the better integration of AI into the workplace are not just technical skills in computer science. They also include skills like design, communication, critical thinking and creativity.

The pace of change in AI presents a challenge for education, retraining and upskilling because skills can rapidly become obsolete. We need a focus on adaptable curricula, transferable skills and continuous learning.

The varied ability of large corporations and SME's to upskill employees and support additional training may be amplified by advancing technology.

Quality and equity

We need to bridge the digital skills and infrastructure gap – providing everyone with basic digital literacy and access to core infrastructure like broadband internet.

Whilst overstated, there is a significant risk of creating an underclass of low-paid, low-skilled work. Avoiding this requires that AI does not exacerbate existing inequalities.

Machines built by people display bias. It is vital that we address this in order to ensure that we do not build inequities into systems that have the potential to become very powerful.

Regional and sectorial disparities will likely be further exasperated by advances in technology, its availability and the skills to take advantage of it.

2. What don't we know about how AI might impact future skills and the quality and equity of work?

Future skills

How might the barriers to an AI-related career increase as AI gets more complex?

What exactly are the skills gaps in the UK economy? Where are they located – by sector and by geography? Which skills might be most in demand in the future?

How do we weigh the importance of highly technical skills against more generalist 'soft' skills in future training?

Quality and equity

What kind of society do we want to live in?

What constitutes equitable work ?

How can we involve people with very little interest or skill in technology in conversations about technology policy?

How can we best communicate the benefits, risks and uncertainties of AI? How can we best stimulate informed public debate about the trade-offs? Who has responsibility for engaging the public in this debate?

How is retraining or upskilling later in life different for people with more or fewer digital skills and competencies?

What will the impacts of COVID-19 be?

What will the impact of exiting the EU be?

How do we make better use of national assets in order to foster investment in life-long learning?

What can we learn from other countries and AI skills initiatives?

How does the UK digital skills agenda evolve after exiting the EU?

What kinds of smart regulation does the UK need to enable action on upskilling and life-long learning?

3. What should we do to advance action on AI and the future of work?

Employers, educators and government (at all levels) all have a role to play in advancing action on AI and the future of work that in a way that puts future skills, quality and equity at the heart. Some of these roles are explored below.

Educators

- Educators need to be able to train learners to work with AI, and to understand its applications. This includes a wide range of jobs that do not yet exist. This requires education and training that focuses on adaptability, critical thinking skills, and how to learn.
- The increasing ubiquity of AI will mean many more ‘low code’ and ‘no code’ jobs that involve AI. This requires education and training to ensure basic digital literacy across the population, and a better appreciation of the importance of non-coding skills like communication, problem solving and design.
- Policymakers need to carefully consider the possible roles for primary, secondary, tertiary and continuing education.

Employers

- Most businesses want to innovate and upskill their workforces, but there is huge variety in their ability to do so. Strategies for supporting SMEs, including those which think that AI is irrelevant to them, will need particular thought. Strategies could include working closely with membership organisations, or looking at clusters of industry in particular regions.
- Workers will need to retrain and upskill throughout their working lives. This should be well-integrated into work, and educators and employers should work together. Workers should be empowered not only to develop their skills, but also to adapt their workplaces inline with the skills that they have gained.

- Businesses should see improving the AI skills of their workforce and their uses of AI more widely as driven by their business purpose, rather than as part of a corporate social responsibility strategy.

Policy

- There may be a significant role for government (at all levels) in coordinating and bringing together educators, employers and individuals across sectors and places to develop shared solutions.
- There may also be a role for government in ensuring a basic standard of access that will underpin a positive future for AI and work. This could include minimum digital literacy standards and access to infrastructure including broadband internet.
- AI is only one of the factors that will cause major changes in the nature of work over the coming decades, and it is not the first time that work has undergone a transformation related to technology. For example, changes due to AI will sit alongside changes related to climate change, and many systems have already undergone significant shifts from paper to digital systems. The role of AI should be considered in this wider context of overlapping, interdependent factors in order to ensure an equitable transformation.
- There is a role for public culture and the arts in provoking and enabling a conversation about AI, encouraging people from all backgrounds and workers from all industries to contribute their thoughts.

Further information

We would be very pleased to speak with you further about any element of our response.

We expect to be using the outputs of this workshop discussion to develop a larger programme of work and would be pleased to keep the Committee updated as this develops over the summer.

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Webpages

Data and AI, The British Academy
<https://www.thebritishacademy.ac.uk/programmes/data-artificial-intelligence/>

UCL Public Policy
<https://www.ucl.ac.uk/public-policy/>

UCL Grand Challenges
<https://www.ucl.ac.uk/grand-challenges/>

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