

Research report

What policy-makers think about AI: preliminary impressions

By Nancy Xia, Dr Jenn Chubb, Dr Darren Reed & Peter Cowling

Research exploring the public perception of AI tends to reflect ambitious visions outlined by companies such as Tesla or Google; or spectacular science-fiction films of robot rebellions like '*Terminator*' or '*I, Robot*'. And while there are significant [research efforts](#) to address the influence of misleading dominant narratives, there is also an increasing debate about the political nature of AI and how it operates with respect to [power in society](#). The role of AI governance in the UK, for instance, is one lens through which we can seek to understand the influence of the policy making world on the way AI technology is controlled and used.

AI is undeniably a topic of increasing importance across governments as [countries compete](#) to become leaders in the field. As the UK begins to look towards a future where AI permeates every [aspect of society](#), proposals for new legislations are also shifting accordingly, and it is more important now than ever to understand the policy-making perspective regarding a future with AI. Despite this, there is little empirical research which actually examines attitudes of policy makers.

A pilot study

As part of the Digital Creativity Labs summer school [programme](#), and the wider [AI Futures](#) research project, we created a pilot survey to explore the views of policy makers towards AI. This project took place over a 9-week period and was designed to give students an insight into the research process. The survey was designed to seek general views around AI (such as ethics, opportunities in AI, regulations, challenges in policy-making), and understanding of public views. Our sample included civil servants, advisors, funders, and researchers from institutes which worked closely with the government.

In this report, we discuss our preliminary impression of the themes observed in nine survey responses obtained so far, and consider what this might mean for future research. We seek not to generalise from this small sample, but to pose some live, open research questions about AI policy and regulation in the UK for further research.

Uncertainty in AI policy-making

A prevailing theme which seemed to recur in the responses was a sense of uncertainty. For example, uncertainty regarding what exactly the term 'AI' entails, both due to the complexity of the field and due to a lack of technical understanding among policy-makers, was explicitly mentioned by 6/9 of respondents when asked to describe some of the main challenges surrounding AI policy. This is

exacerbated by a lack of universal standards in ethics and regulation both internationally and within the industry (6/9), as well as information gaps between the industry and government (2/9). It seems that the diversity of opinions and perspectives can pose significant complications for decisions made in policy.

“The breadth and complexity of the field of ‘AI’. AI is not one technology, nor even one category of technology. It is an entire field of computer science, with a multitude of methods, approaches, applications, problems. This makes it hard to write clear, concise policy around it.”

There was also uncertainty regarding the potential, unforeseen consequences of using AI in general, which was an issue which 5/9 policy-makers felt were missing from current discussions. In a separate question, another respondent also highlighted the importance of devising clear guidance for AI, stating that the ‘under-regulation’ of AI in its current form is also creating uncertainty for innovators. As one respondent aptly summarised:

“AI is just a tool, and humans have adopted many of these without full understanding of their implications throughout history... Moving down this path will require a balance of risks, but will also need some risks taken, because that’s how humans progress.”

The UK needs new AI regulations

While uncertainty was a key theme with regards to the challenges of policy-making, the majority of respondents (7/9) expressed a belief that it was important for the UK to have AI-specific regulations in some form (mean importance rating = 65.55, where 0 represented ‘Not at all important’ and 100 represented ‘Extremely important’). Most commonly, respondents commented that the UK could potentially ‘lead the way’ with a new framework of AI policies independent of the existing regulatory models in other countries (2/9), particularly in light of Brexit.

However, one respondent also noted that the UK’s influence over policy in AI may be limited if places like the EU develop more stringent regulations, as foreign companies have a greater incentive to follow the regulations of places with a larger consumer market power.

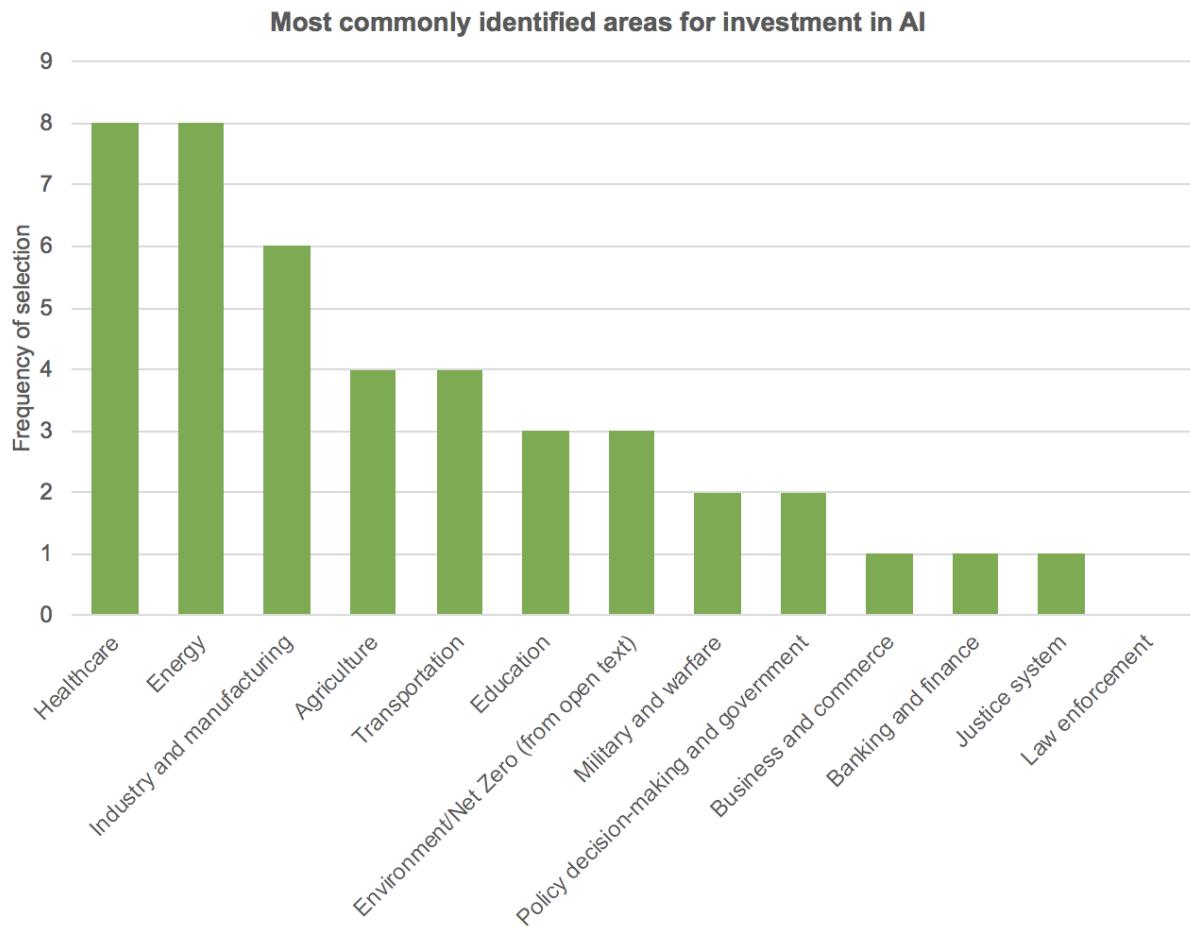
When further asked to choose between four levels of regulation (‘prohibition’, ‘strict regulation’, ‘soft regulation’, and ‘no regulation’) for different applications of AI, the responses so far demonstrated a trend towards ‘strict regulation’, particularly for applications which involved using AI for surveillance purposes, such as in biometric identification and social profiling. Responses were somewhat softer for applications involving some form of AI decision-making, such as the use of AI in the justice system, but on average still tended towards ‘strict regulation’. Indeed, all respondents surveyed so far demonstrated concern for bias in AI decision-making in a further question exploring perceptions and ethics of AI, which suggests that this is an area of particular concern for policy-makers.

In contrast, most existing forms of AI technologies, such as conversational AI, targeted marketing, and even AI generated videos/images/audio were treated more leniently, as were applications of AI for scientific modelling or trend forecasting, with most respondents choosing either ‘no regulation’ or ‘soft regulation’. One notable exception, however, was driverless vehicles, which the majority of respondents rated as requiring ‘strict regulation’.

AI investment priorities

“These are areas where increased automation, research and efficiencies afforded by AI will have the biggest positive impact on society and people’s lives.”

In the survey, three sectors were most frequently identified by policy-makers as priorities for future AI investments: ‘Healthcare’ (8/9), ‘Energy’ (8/9), and ‘Industry and manufacturing’ (6/9), with ‘Healthcare’ ranking on average as the highest in importance. Other sectors which were also frequently identified included: ‘Transportation’ (4/9), ‘Agriculture’ (4/9), and ‘Environment/Achieving Net-Zero’ (3/9) from the open-text.



When answering the question of investment, policy-makers primarily considered areas with 'minimal risks', either in terms of handling personal data or biases in decision-making (4/9), choosing instead to prioritise applications which are seen to have wide-scale impacts and benefits (2/9). Another common reason for choosing the following sectors was due to the established successes of AI in these areas, in particular healthcare, which respondents felt were important to build upon in order to encourage greater investment and technological developments (2/9).

Indeed, a question examining respondents' views towards AI ethics by asking them to rate their agreement or disagreement also concurred with many of the themes mentioned in previous discussions with scholars. Namely, policy-makers recognised the importance of transparency in AI, the need to respect individual privacy, and the need for corporate responsibility in the research and development of AI.

Interestingly, the responses given by policy-makers so far also reflect a sense of optimism for the future of AI. The majority of policy-makers disagreed (6/9) with the idea that public acceptance of AI was low, as well as the idea that AI will cause more harm to society overall than good (7/9). They were similarly hopeful with the impact of regulations on AI, with most disagreeing with the idea that regulating AI would restrict technology development (7/9), or that some AI systems would be impossible to regulate (5/9).

However, it is also worth noting that, in this iteration of the survey, a 'Neutral/Don't know' option was not included for ease of identifying data trends in responses. As one respondent pointed out, this made it difficult to answer some of the more speculative statements about potential impacts of AI (e.g. 'AI will increase social inequality'). Future iterations of the survey may benefit from adjustments which could capture greater nuance in the quantitative data.

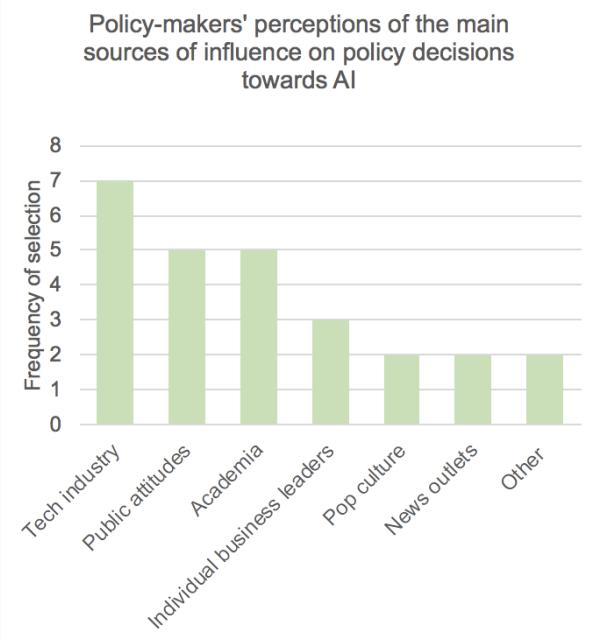
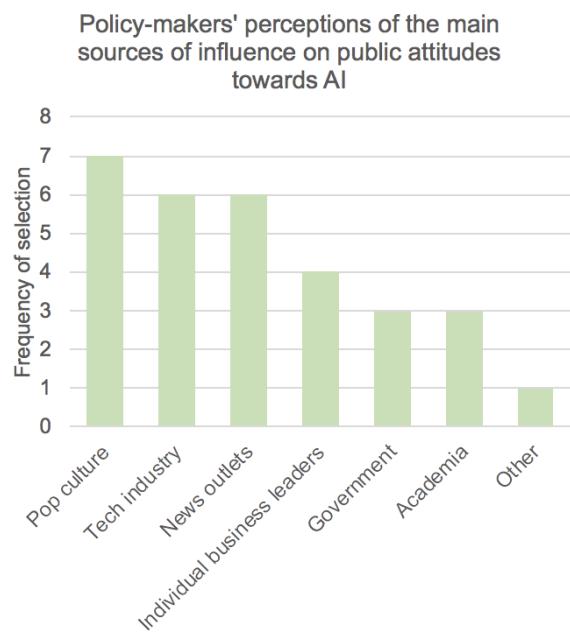
Understanding public perceptions towards AI

A key section of the survey explored policy-makers' understanding of the public perception towards AI. Respondents were asked to identify at least three beliefs which they felt were most influential among the public. Thus far, the data collected suggests that policy-makers believe the public response to AI is mixed. The most commonly selected was the statement: 'AI will lead to mass unemployment' (5/9), followed by 'AI will lead to significant breakthroughs in many important areas, such as healthcare' (4/9), and 'AI will be used in surveillance and there will be no privacy' (4/9). Thus far, these preliminary trends in responses concur both with the responses from previous interviews with AI scholars in the 'AI Futures' project, as well as other studies of public attitudes towards AI, which could perhaps indicate an accurate awareness from policy-makers' behalf regarding public views of AI.

Despite these responses, however, there was also an acknowledgement that current policy decisions lacked public input. Although a minority of respondents mentioned potential channels of communication between the policy and government, the majority of respondents felt that there was little representation from the public and few platforms to allow for that representation.

“... the AI conversation has for a very long time been dominated by a certain section of the tech community, and does not reflect the wider whole; this realisation has yet to permeate the walls of Whitehall.”

Interestingly, policy-makers also felt there was a difference in the sources of information affecting the public's attitudes towards AI and their own policy decisions. Namely, 'pop culture' and 'news outlets' were two of the most frequently identified sources of influence for the public, followed by the 'technology industry'. For policy-makers themselves however, the 'technology industry' was most frequently identified as the most influential source on policy decisions, followed by 'academia' and 'public attitudes'.



Future directions

Currently, our research offers only a brief snapshot into the perspectives of policy-makers regarding a future with AI, and should be interpreted as preliminary indicators only for more nuanced trends – something which will hopefully be revealed with a greater sample.

However, research with 25 thought leaders also conducted as part of the AI futures postdoctoral project led by Dr Jenn Chubb, also indicates that regulation and education are key to a future with AI. Indeed, it is important to note that overall this project has focused on a range of domains of use, further research focusing on particular contexts and domains may be required to really unpack the more nuanced and situational ethics relating to particular applications of AI.

Nevertheless, even the small sample collected here can offer key insights as to what we may be able to expect from further research around AI policy making.. How can we feasibly bridge the information gap between technical experts, policy-makers, and the public regarding AI? How should the UK formulate its approach towards AI – by observing others, or exploring novel methods? What risks should we be prepared to take in the process of exploring our options in policy?

Through this preliminary survey, we hope to spark discussion around policy and AI. Not only focusing on policy-makers, but by examining the wider picture of how policy fits in with academia and public opinion, and what concrete actions need to be taken to ensure a future with AI which enables humanity to [thrive](#).

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About the researchers:

Nancy Xia is a student who enrolled in the DC Labs summer school programme 2021. Nancy is interested in exploring the way people interact with futuristic technologies, and how these technologies could be integrated into everyday life. She is a Psychology graduate from UCL, and will be continuing her studies at UCL as a Masters student in Human-Computer Interaction. Nancy led this project.

Dr Jenn Chubb is Research Fellow at the University of York with [XR Stories](#). Jenn is interested in all things ethics, science and stories. Outputs for the AI Futures project including journal articles and blogs can be found [here](#). Jenn co-supervised this project.

Dr Darren Reed is a Senior Lecturer at York in the Department of Sociology. Darren co-supervised this project.

Peter Cowling is Professor of AI at Queen Mary, University of London. After decades of researching AI technology, he is now trying to understand what AI technology research is for.

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